

FOREWORD

BCSM certification, along with authenticating a candidate for market trading, gives comprehensive information on securities market, regulatory perspective, functioning of the stock exchange, and trading. The certification helps the candidate in becoming a recognized professional and entitles him for a worthy job.

The Bombay Stock Exchange Training Institute Ltd. (BTI Ltd.) is a wholly owned subsidiary of Bombay Stock Exchange (BSE); the oldest stock exchange in Asia. BTI Ltd. inherits from BSE the knowledge and insights into the capital markets industry, garnered over the past 135 years.

BTI Ltd. has the distinct advantage of being at the centre of action —the financial hub of India, one of the worlds most rapid emerging markets. This has helped us provide insights into the unique functioning of this world. Emerging markets such as the BRIC countries—Brazil, Russia, India, and China, can entice and intimidate. The first hand experience of our faculty and subject matter experts in dealing with the realities of this market, enables us to appreciate how organizations, entrepreneurs, and investors identify and respond to these new challenges and opportunities.

BTIL conducts various certifications in cash markets, derivatives, options trading, fundamental analysis, security analysis, financial reporting standards, credit rating etc. This book is specially designed to cater to the reference and guidance needs of the participants for the certification of BCSM (BSE's Certification on Securities Market). This book is prepared especially by in house professionals who are actually working on the processes and explains exhaustively the minute details on the working of the exchange.

BSE TRAINING INSTITUTE LIMITED
TEAM

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This workbook has been developed to assist candidates in preparing for the BSE's Certification on Securities Market Examination (BCSM).

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Introduction

To BSE's Certification on Securities Markets (BCSM)

EXAMINATION PLAN & CERTIFICATION

The passing of this examination shall entitle the candidate to receive BSE's Certification on Securities Markets (BCSM).

BTIL shall conduct a test of 100 marks consisting of 60 questions. The questions would be of objective type having multiple choice. A quarter mark would be deducted for each wrong answer.

BCSM shall be awarded to only those candidates who obtain a minimum of 50% marks. The candidates who secure less than 50% marks and willing to get BTIL's Certificate for successful completion of the program shall appear for the test conducted in the subsequent batches of the same program by paying an examination fee as applicable per attempt. It shall be the responsibility of such candidates to enquire about the subsequent programs and their test dates.

The candidates securing less than 50% marks may be given participation certificates.

OBJECTIVES OF THE TEST

To ensure that the candidates in stock market have adequate knowledge of the Stock Exchange operations they are dealing in.

TARGET AUDIENCE

Stock Brokers, Sub-brokers, Mutual Funds, DPs and Investors.

DURATION & TIME

90 minutes

TEST SYLLABUS

Secondary Market, Trading Clearing and Settlement, Rolling Settlement, BOLT, Mutual Funds, Tax Provisions, Dematerialization of Shares, Surveillance, Sensex and Other Indices, Futures and Options, Inspection of Brokers' Books, Ethics and Code of Conduct of Brokers/Sub-brokers, Primary Market, Book Building & IPOs, Listing, Investors' Grievances Redressal System available with BSE, SEBI & CLB, Debt Market and Internet Trading

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MODEL QUESTIONS

Chapter 1

The Indian Securities Market

1.1. INTRODUCTION

The Indian securities market, considered one of the most promising emerging markets, is one of the top eight markets of the world. The market comprises of equity, debt and derivative segments and has a large investor base. The investor base comprises of individuals, corporates and foreign institutional investors and has been rapidly rising over the past decade after financial market deregulation and economic liberalization.

Bombay Stock Exchange Ltd., Mumbai, was established in 1875 as "The Native Share and Stock Brokers Association" (voluntary non-profit organization), has evolved over the years and is now one of premier exchange in the country.

BSE is the world's number 1 exchange in the world in terms of the number of listed companies (over 4900). It is the world's 5th most active in terms of number of transactions handled through its electronic trading system. And it is in the top ten of global exchanges in terms of the market capitalization of its listed companies (as of December 31, 2009). The companies listed on BSE command a total market capitalization of USD Trillion 1.28 as of Feb, 2010.

BSE is the first exchange in India and the second in the world to obtain an ISO 9001:2000 certifications. It is also the first Exchange in the country and second in the world to receive Information Security Management System Standard BS 7799-2-2002 certification for its BSE On-Line trading System (BOLT). Presently, it is ISO 27001:2005 certified, which is an ISO version of BS 7799 for Information Security.

The BSE Index, SENSEX, is India's first and most popular Stock Market benchmark index. Exchange traded funds (ETF) on SENSEX, are listed on BSE and in Hong Kong. Futures and options on the index are also traded at BSE.

At the end of March 2010, there were 4975 companies listed at BSE. The Spot Market segment of BSE reported a trading volume of Rs 1378808.61 crore during 2009-10 with an Y-O-Y increase of 25.34% and at the end of March 2010, the BSE Market Capitalization was Rs. 6164157.00 crore.

The debt markets in India comprise of markets for central government, state government and corporate debt securities. Several reforms have taken place in the debt markets as well in the past decade. Apart from modification of settlement systems, trading

infrastructure and clearing mechanism has been created to make it easier for participants to undertake transaction in efficient and transparent manner. This segment has seen an increased activity in the stock exchanges over the past few years.

At present, 24 stock exchanges operate are recognized in India. The stock exchanges provide facilities for trading in securities. Securities markets provide a common platform for transfer of funds from those who have them in excess to those in need of them. Securities markets in India is regulated by SEBI.

1.2. COMPONENTS OF SECURITIES MARKETS

The major components of the securities markets are listed below:

- Securities: Shares, Bonds, Debentures, Derivatives, Mutual Fund Units
- Intermediaries: Brokers, Sub-brokers, Custodians, Share Transfer Agents, Depository Participants, Credit Rating Agencies, Merchant Bankers
- Issuers of Securities: Companies, Bodies Corporate, Government, Financial Institutions, Mutual Funds, Banks
- Investors in Securities: Individuals, Associations of Persons, Companies, Mutual Funds, Financial Institutions, Foreign Institutional Investors
- Regulators: SEBI, RBI (to a certain extent), Department of Economic Affairs (DEA), Department of Company Affairs (DCA)

Each component of the securities markets is discussed in later sections

1.2.1. SECURITIES

The Securities Contract (Regulation) Act, 1956 defines "Securities" to include shares, scrips, stocks, bonds, debentures, debenture stock or other marketable securities of like nature in or of any incorporated company or body corporate, derivative, units or any other instrument issued by any collective investment scheme to the investors in such schemes, government securities, or any other instruments so declared by the central government to be securities, rights and interest in securities, and security receipt.

In any economy, there are investors who have surplus funds and seek returns by investing these funds and there are issuers who need funds and who seek to provide a profitable return on these funds to those investors. These issues of securities provide initial fuel to the economy and to securities markets. Having issued securities, there are other players who seek to buy these issued securities from the original holder and

generate a higher return on them by seeking to sell them later at a higher price. This demand generates a continuous need for a secondary market, which apart from price discovery also creates a market place, provides liquidity to investors and issuers and finally acts a barometer for the entire economy.

Investors and issuers are aided by various intermediaries in the market place who help them find each other.

1.2.2. INTERMEDIARIES

Intermediaries provide various services to investors and issuers and have grown to become among both powerful and knowledgeable due to substantial growth of securities markets over the last century. A large variety and number of intermediaries provide intermediation services in the Indian securities market. The major ones are listed below in Table 1.

| Market Participants | Number as on March 31 | |
|-----------------------------------|-----------------------|--------|
| | 2007 | 2008 |
| Securities Appellate Tribunal | 1 | 1 |
| Regulators* | 4 | 4 |
| Depositories | 2 | 2 |
| Stock Exchanges | | |
| With Equities Trading | 21 | 19 |
| With Debt Market Segment | 2 | 2 |
| With Derivative Trading | 2 | 2 |
| Brokers | 9,443 | 9,487 |
| Corporate Brokers | 4,110 | 4,183 |
| Sub-brokers | 27,541 | 44,073 |
| FII's | 996 | 1,319 |
| Portfolio Managers | 158 | 205 |
| Custodians | 15 | 15 |
| Primary Dealers | 17 | 16 |
| Merchant Bankers | 152 | 155 |
| Bankers to an Issue | 47 | 50 |
| Debenture Trustees | 30 | 28 |
| Underwriters | 45 | 35 |
| Venture Capital Funds | 90 | 106 |
| Foreign Venture Capital Investors | 78 | 97 |
| Mutual Funds | 40 | 40 |
| Collective Investment Schemes | 0 | 0 |

* DCA, DEA, RBI & SEBI.

* As on 30 June, 2007 Source: SEBI Bulletin July 2007

1.2.3. ISSUERS OF SECURITIES

Every organization, whether it is a company, institution or a Government body needs funds for various operations. Organizations issue securities in the primary market

depending on their needs. The Securities market in India is an important source for corporate and government. The corporate sector depends significantly on equity and debt markets for meeting its funding requirements and equity has become the preferred mode of financing for companies today.

During the year 2006-07 total funds raised through capital issues were Rs. 33,508 crore approx. The share of the Public Sector was Rs. 1,779 crore and Private Sector Rs. 31,728 crore. The Most of the Fund Raising was done through Equity Financing.

| Table 2 SECURITIES AND CAPITAL ISSUES DATA | |
|---|--------|
| Settlement Cycle | T+2 |
| Number of Listed Companies (BSE) | 4,821 |
| Number of Listed Sricps (BSE) | 7,561 |
| Ratio of Traded Sricps /Listed Sricps (BSE) | 34.9% |
| Share of Top 5 Sricps to Total Turnover (BSE) | 15.3% |
| Share of Top 10 Sricps to Total Turnover (BSE) | 23.9% |
| Delivery/Turnover Ratio (BSE) | 31.1% |
| Capital Issues (Rs. Cr.) | 33,508 |
| • Public Sector (Rs. Cr.) | 1,779 |
| • Private Sector (Rs. Cr.) | 31,728 |
| • GDRs/ADRs Floatation (US\$ million) | 3,776 |
| Foreign Capital Inflows (net) (US \$ billion) | 46.2 |
| External Commercial Borrowings (US\$ million) | 16,084 |
| NRI Deposits (US\$ million) | 3,895 |
| FDI (US \$ million) | 19,531 |
| FII Investments (US \$ million net) | 3,225 |
| BSE Sensex (1979=100) March end 2007 | 13,072 |
| PE Ratio | 20.3 |
| PB Ratio | 5.1 |
| Yield (% p.a.) | 1.3 |

Sources: SEBI Bulletin 2007 (RBI Macroeconomic & Monetary Developments *First Quarter Review 2007 - 08)

1.2.4. INVESTORS

Investors are those who have excess funds with them and want to employ it for returns. Indian securities market has more than 10 million investors, comprising Individuals, Association of Persons, Companies, Mutual funds, Financial Institutions, Foreign Institutional Investors.

Foreign direct investment has more than doubled from US\$ 7,722 million in 2005 - 06 to US\$ 19,531 million in 2006-07. Portfolio Investment has increased from US\$ 26,880 million in 2005 - 06 to US\$ 32,025 million in 2006-07.

Table 3: FOREIGN INVESTMENT INFLOWS

| Year | A. Direct Investment (US | B. Portfolio Investment (US \$ million) | Total (A+B) (US \$ |
|---------|--------------------------|---|--------------------|
| 2005-06 | 7,722 | 26,880 | 34,602 |
| 2006-07 | 19,531 | 32,025 | 51,556 |

Source: RBI Macroeconomic & Monetary Developments *First Quarter Review 2007 – 08

1.2.5. MARKET REGULATORS

Securities market is regulated by following governing bodies:

- Securities and Exchange Board of India (SEBI)
- Department of Economic Affairs (DEA)
- Department of Company Affairs (DCA)
- Reserve Bank of India
- Stock exchanges

Significant among the legislations for the securities market are the following:

- The SEBI Act, 1992, which establishes SEBI to protect investors and development and regulate securities market. All the powers under this act are exercised by SEBI.
- The Companies Act, 1956, which set out the code of conduct for the corporate sector in relation to issue, allotment and transfer of securities, disclosures to be made in public issues and non payment of dividend. Powers under this Act are exercised by SEBI in case of listed public companies and public companies proposing to get their securities listed.
- The Securities Contract (Regulation) Act, 1956, which provide for regulation of transaction in securities through control over stock exchanges. Most of the powers under this act are exercised by Department of Economic Affairs (DEA), some are concurrently exercised by DEA and SEBI and a few powers by SEBI.
- The Depository Act, 1996, which provides for electronic maintenance and transfer of ownership of dematerialized securities. SEBI administers the rules and regulation under this Act.

The Securities and Exchange Board of India was established in 1988, as a government department. The passing of the SEBI Act in 1992 made SEBI the apex regulator of the Indian securities markets. It was established to regulate and develop the growth of the capital market. SEBI regulates the working of stock exchanges and intermediaries such as stock brokers and merchant bankers, accords approval for mutual funds, and

registers Foreign Institutional Investors who wish to trade in Indian scrips. Section 11(1) of the SEBI Act provides that it shall be the duty of the Board to protect the interests of investors in securities and to promote the development of, and to regulate the securities market, by such measures as it thinks fit.

SEBI regulates the business in stock exchanges and any other securities markets and the working of collective investment schemes, including mutual funds, registered by it. SEBI promotes investor's education and training of intermediaries of securities markets. It prohibits fraudulent and unfair trade practices relating to securities markets, and insider trading in securities, with the imposition of monetary penalties, on erring market intermediaries. It also regulates substantial acquisition of shares and takeover of companies and can call for information from, carry out inspection, conduct inquiries and audits of the stock exchanges and intermediaries and self regulatory organizations in the securities market.

SEBI has introduced various reforms including improved transparency, computerization, enactments against insider trading, improved capital adequacy, imposed restrictions on forward trading, and enacted provisions to encourage corporate membership in the stock exchanges.

Stock exchanges have also laid down strict compliance measures covering detection of irregular trading practices through sophisticated surveillance systems, margining, trading volume controls and set up investor protection funds. Stock exchanges ensure compliance of brokers on a continuous basis *through* inspection and other measures.

1.3. TYPES OF SECURITIES MARKETS

In the context of equity products, which this publication seeks to cover in depth, the following markets could be defined:

- Primary Market
- Secondary Market
- Derivative Market

1.3.1. Primary Markets

Fresh issues of shares and other securities are effected through the Primary market. It provides issuers opportunity to issue securities, to raise resources to meet their requirements of business. Equity issues can be effected at face value or at discount/premium. Issues at discounts are rare and almost unheard of. Issuers can issue the securities in domestic market and/or international market through ADR/GDR/ECB route. Resources raised from domestic as well as international markets

by issuers have gone up significantly over the years. During 2006-07, a total of Rs. 33,508 crore was mobilized by the government and corporate sector from the primary market through public issues.

Capital raised from the primary market through public, rights & follow-on offerings have aggregated Rs. 33,508 crore during FY 2006-07, as compared to Rs. 27,382 crore during the previous fiscal year. The number of issuances from the primary market in fact reduced from 139 to 124 over the same period because of a larger **per issue** size. During 2006-07, the regulator introduced a new product called a "Qualified Institutional Placement ("QIP"). QIP enables a listed company to offer shares to qualified institutional buyers through a private placement mechanism and is a landmark introduction in the Indian Capital Markets. The banking/finance, construction, IT & Telecom sectors dominated the primary market issuances during 2006 - 07.

Table: Capital Raised from the Primary Market

| Year | Total | | Category-wise | | | | Issuer-type | | | |
|-----------|--------|--------|---------------|--------|--------|--------|-------------|--------|-----|--------|
| | Public | | Rights | | Listed | | IPOs | | | |
| | No. | Amount | No. | Amount | No. | Amount | No. | Amount | No. | Amount |
| 2004 - 05 | 60 | 28,256 | 34 | 24,640 | 26 | 3,616 | 37 | 14,507 | 23 | 13,749 |
| 2005 - 06 | 139 | 27,382 | 103 | 23,294 | 36 | 4,088 | 60 | 16,446 | 79 | 10,936 |
| 2006 - 07 | 124 | 33,508 | 85 | 29,796 | 39 | 3,710 | 47 | 5,002 | 77 | 28,504 |

Source: SEBI Bulletin July 2007

Table: Industry-wise Classification of Capital Raised

| Industry | 2005 - 06 | | 2006 - 07 | |
|------------------------|-----------|--------------------|-----------|--------------------|
| | No. | Amount (Rs. Crore) | No. | Amount (Rs. Crore) |
| Banking / FIs | 12 | 12,439 | 5 | 2,190 |
| Cement & Construction | 11 | 1,020 | 13 | 2,747 |
| Chemical | 2 | 128 | 5 | 147 |
| Electronics | 2 | 54 | 9 | 480 |
| Engineering | 6 | 1,124 | 2 | 465 |
| Entertainment | 7 | 710 | 8 | 1,219 |
| Finance | 7 | 824 | 9 | 2,765 |
| Food Processing | 9 | 427 | 9 | 634 |
| Health Care | 10 | 651 | 2 | 208 |
| Information Technology | 15 | 902 | 12 | 2,077 |
| Paper & Pulp | 4 | 182 | 1 | 15 |
| Plastic | 0 | 0 | 3 | 106 |
| Power | 6 | 2,164 | 1 | 30 |
| Printing | 1 | 43 | 2 | 121 |
| Telecommunication | 0 | 0 | 3 | 2,994 |

| | | | | |
|--------------|------------|---------------|------------|---------------|
| Textile | 13 | 771 | 15 | 1,064 |
| Others | 34 | 5,944 | 25 | 16,246 |
| Total | 139 | 27,382 | 124 | 33,508 |

Source: SEBI Bulletin 2007

1.3.2. SECONDARY MARKET

Investors can buy and sell securities in secondary market from/to other investors. The securities are traded, cleared and settled through intermediaries as per prescribed regulatory framework under the supervision of the Exchanges and oversight of SEBI. The regulatory framework has prohibited trading of securities outside the exchanges. There are 22 exchanges today recognized over a period of time to enable investors across the length and breadth of the country to access the market.

The broad structure of the secondary market as on March 31, 2007 is presented below:

| | |
|--|---------------------|
| Stock Exchanges | 22 |
| National Stock Exchanges | 2 |
| With Corporate Debt Market Segment | 2 |
| With Derivative Trading | 2 |
| With Clearing Corporation | 2 |
| Registered Members (brokers) | 14,778 |
| Registered Corporate Members | 4,076 |
| Registered Sub-Brokers | 27,894 |
| Registered FII's | 996 |
| Listed Companies | 4,821 |
| Market Capitalization of BSE | Rs. 3,545,041 crore |
| Turnover on BSE during 2006 - 07 | Rs. 956,185 crore |
| Source: SEBI Bulletin July 2007 (These relate to only equity segments of exchanges) | |

1.3.3. DERIVATIVES MARKET

Derivatives are contracts that are based on or derived from some underlying asset, reference rate, or index.

Most common financial derivatives are: forwards, futures, options and swaps. Currently, the Indian markets provide equity derivatives of the following types:

- Index Futures- 3 Indices

- Stock Futures-187 Stocks
- Index Options- 3 Indices
- Stock Options -187 Stocks

Derivatives help to improve market efficiencies because risks can be isolated and sold to those who are willing to accept them at the least cost. Using derivatives breaks risk into pieces that can be managed independently. Corporations can keep the risks they are most comfortable managing and transfer those they do not want to other companies that are more willing to accept them. From a market-oriented perspective, derivatives offer the free trading of financial risks.

Financial derivatives have changed the face of finance by creating new ways to understand, measure, and manage financial risks. Ultimately, derivatives offer organizations the opportunity to break financial risks into smaller components and then to buy and sell those components to best meet specific risk-management objectives. Moreover, under a market-oriented philosophy, derivatives allow for the free trading of individual risk components, thereby improving market efficiency. Using financial derivatives should be considered a part of any business's risk-management strategy to ensure that value-enhancing investment opportunity can be pursued.

Derivatives include:

- (a) A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security, and
- (b) A contract which derives its value from the prices, or index of prices, or underlying securities. The Act also made it clear that derivatives shall be legal and valid only if such contracts are traded on a recognized stock exchange. The Government also rescinded in March 2000 an old notification, which had banned forward trading in securities in the 1960s.

1.4. EQUITY & DEBT MARKETS

Markets can also be broadly classified into:

- Equity Market
- Debt Market

Debt markets are currently classified by a large institutional presence, though attempts are being made to attract retail investors. Debt markets trade in Government Securities, Treasury Bills, Corporate Bonds and other debt instruments while Equity markets deal mainly in equity shares and to a limited extent in preference shares and company

debentures. Futures and Options in indices and equity shares are of a relatively recent origin and form part of equity markets.

1.4.1. EQUITY MARKET

Publicly traded equities form a significant source of capital for firms, and equity markets are a key part of the process of allocating capital among competing uses in our economy. Through issuance of equities, companies enable a broad set of investors to share in the risk and reward of economic activities. A company's value is often measured by the price of its equity share. Equity offerings could take the form of shares, ADRs, GDRs & QIPs. Equity shares are traded on the secondary market through cash & derivative segments.

1.4.2. DEBT MARKET

The Indian debt markets play an important role in the capital formation process. It comprises of two main segments, viz., the government securities market and the corporate securities market, besides a small emerging market for interest rate derivatives. The market for government securities is the most dominant part of the debt market in terms of outstanding securities, market capitalization, trading volume and number of participants. It sets benchmark for the rest of the market. Major investors in Debt Market are shown in table Participants and Products in Debt Market.

There are two broad methods by which an Indian corporate can raise term debt from the capital market. The first is the private placement market where the issuer invites a select group of qualified institutional investors to subscribe to bonds/debentures issued: The second method is a Public offer where securities are offered to the Public at large including retail investors.

Table: Participants and Products in Debt Market

| Issuer | Instruments | Maturity | Investors |
|--------------------|------------------|--------------|---|
| Central Government | Dated Securities | 2 - 25 years | RBI, Banks, Insurance Companies, Provident Funds, Mutual Funds, PDs, Individuals, FIs |
| Central Government | T-Bills | 91/364 days | RBI, Banks, Insurance Companies, Provident Funds, PDs, Mutual Funds, Individuals, FIs |

| | | | |
|------------------|-------------------------------|--------------------|---|
| State Government | State Development Loans | 5-10 years | Banks, Insurance Companies, Loans Provident Funds, Individuals |
| Issuer | Instruments | Maturity | Investors |
| PSUs | Bonds, Structured Obligations | 5-10 years | Banks, Insurance Companies, Obligations Provident Funds, Mutual Funds, Individuals, Corporates, FIs |
| Corporate | Debentures, Bonds | 1-12 years | Banks, Mutual Funds, Corporates, Individuals, FIs |
| Corporate, PDs | Commercial Papers | 15 days to 1 year | Banks, Mutual Funds, Financial Institutions, Corporates, |
| Banks | Certificates of Deposits | 3 months to 1 year | Banks, Corporates, Individuals, FIs |

Source: NSE website

The various segments in debt market in India are discussed below:

- 'The market for government securities comprises the securities issued by the central government, state governments and state-sponsored entities. The Central Government mobilizes funds mainly through issue of dated securities and T-bills, while State Governments rely solely on State Development Loans. The major investors in sovereign papers are banks, insurance companies and financial institutions, which generally do so to meet statutory requirements.
- The Indian corporate sector relies, to a great extent, on raising capital through debt issues, which comprise of bonds and CPs. Of late, most of the bond issues are being placed through the private placement route. These bonds are structured to suit the requirements of investors and the issuers, and include a variety of tailor-made features with respect to interest payments and redemption. Corporate bond market has seen a lot of innovations, including securitized products, corporate bond strips, and a variety of floating rate instruments with floors and caps. In the recent years, there has been an increase in issuance of corporate bonds with embedded put and call options. While some of these securities are traded on the stock exchanges, the secondary market for corporate debt securities is yet to fully develop.

- Bonds issued by government-sponsored institutions like DFIs, infrastructure-related institutions and the PSUs, also constitute a major part of the debt market. The preferred mode of raising capital by these institutions has been private placement, barring an occasional public issue. Banks, financial institutions and other corporates have been the major subscribers to these issues.
- In addition to above, there is another segment, which comprises of short-term paper issued by banks, mostly in the form of certificates of deposit (CDs). This segment is, however, comparatively less dominant.
- The Indian debt market also has a large non-securitized, transactions-based segment, where players are able to lend and borrow amongst themselves. This segment comprises of call and notice money markets, inter-bank market for term money, market for inter-corporate loans, and market for ready forward deals (repos). Typically, short-term instruments are traded in this segment.
- The market for interest rate derivatives like FRAs, IRSs is emerging to enable banks, PDs and FIIs to hedge interest rate risks.

1.5. EXCHANGE TRADED FUNDS:

An exchange-traded fund, or ETF, is a type of Investment Company whose investment objective is to achieve the same return as a particular market index. An ETF is similar to an index fund in that it will primarily invest in the securities of companies that are included in a selected market index. An ETF will invest in either all of the securities or a representative sample of the securities included in the index. For example, one type of ETF, known as Spiders or SPDRs, invests in all of the stocks contained in the S&P 500 Composite Stock Price Index.

Exchange traded fund has qualities of an Index fund viz. Constructed to track the Index, Open ended Mutual fund, Low Expense ratio, Low Turnover and also those of a stock viz. Trading flexibility intraday on the exchange, Real time price. Units of exchange traded fund can be bought and sold with cash through trading members on respective stock exchange. The First ETF - SPDR (S&P 500 depository receipts) was launched in the year 1993.

The role of stock exchange in case of launch of any ETF is Index Licensor. Some of the ETF's traded on BSE SENSEX are SPICE, Kotak MF, etc. Value of one unit of exchange traded fund SPICE (ETF on SENSEX) is typically 1/100th of SENSEX. SPICE was

sponsored by Pru ICICIAMC Ltd. Value of one unit of exchange traded fund launched by Kotak MF (ETF on SENSEX) is typically 1/100th of SENSEX.

1.6. EMERGING PATTERNS AND REGULATORY CHANGES

1.6.1. Implications of change in technology

More powerful and functional computers and newer telecommunications technologies have facilitated the development of new trading venues for equities. These new venues offer investors a wide range of alternatives for entering orders and executing trades. Some of the new trading mechanisms also offer speedier executions or greater anonymity, which are important to some type of investors.

At the BSE, a new initiative WebEx allows investors to trade directly through the Internet. The investor is required to quote a broker code, but the transaction is put through directly through the Internet. Further, all investors (whether trading through the WebEx or otherwise) have a facility to confirm their trades through the website: www.bseindia.com. They can punch in their transaction details to know what time their trade was executed and at what price.

1.6.2. Trading Cycle

Earlier, settlement was done at the end of the settlement period which varied from 14 days to 30 days, depending on the securities traded. The introduction of the rolling settlement in 2001, led to the settlement being carried out in T+5 days, i.e., the 5th day after the trade. This settlement time reduced to T+3 in 2002 and T+2 in 2003. This is in accordance with international standards.

1.6.3. Demutualization

Stock exchanges were owned, controlled and managed by brokers. This led to a conflict of interest over the settlement of disputes as self got precedence over regulations. The regulators advised the stock exchanges for 51% representation by non-broker members. In May 2007, 51% of the equity share capital of the BSE was placed with Indian Corporates, non-broker members, private equity funds etc.

Chapter 2:

Regulatory Framework

2.1. INTRODUCTION

The regulatory framework governing securities markets in India is broad and comprehensive. The Parliament has enacted SCRA, SEBI Act and the Depositories Act. SEBI has framed regulations under the SEBI Act and the Depositories Act for registration and regulation of all market intermediaries, for prevention of unfair trade practices, insider trading, etc. Under this framework, Government and SEBI issue notifications, guidelines, and circulars, which need to be complied with, by market participants. The self-regulatory organizations (SROs) like stock exchanges have also laid down their rules of game

2.2. Role of the Regulators

The regulators ensure that the market participants behave in a desired manner so that the securities market continue to be a major source of finance for Corporates and government and the interest of investors are protected. The responsibility for regulating the securities market is shared by:

- Department of Economic Affairs (DEA)
- Department of Company Affairs (DCA)
- Reserve Bank of India (RBI)
- Securities and Exchange Board of India (SEBI)
- Securities Appellate Tribunal (SAT)

Government has issued notifications providing that the contracts for sale and purchase of government securities, gold-related securities, money market securities and securities derived from these securities and ready forward contracts in debt securities shall be regulated by RBI. Such contracts, if executed on stock exchanges, shall, however, be regulated by SEBI in a manner that is consistent with the guidelines issued by RBI.

Most of the powers under the SCR (A) are exercisable by Department of Economic Affairs (DEA), while a few others by SEBI. The powers of the DEA under the SCRA are also con-currently exercised by SEBI. The powers in respect of the contracts for sale and purchase of securities, gold-related securities, money market securities and securities derived from these securities and ready forward contracts in debt securities are exercised concurrently by RBI. The SEBI Act and the Depositories Act are mostly

administered by SEBI. The powers under the Companies Act relating to issue and transfer of securities and non-payment of dividend are administered by SEBI in case of listed public companies and public companies proposing to get their securities listed. The SROs ensure compliance with their own rules relevant for them under the securities laws.

2.3. Key regulations governing the Indian Securities Market.

The key regulations currently governing Indian securities market are:

- (a) The Securities Contracts Regulation Act, 1956, which provides for the regulation of the transactions in securities through control over stock exchanges;
- (b) The Companies Act, 1956, which sets out the code of conduct for the corporate sector in relation to issue, allotment and transfer of securities, and disclosures to be made in public issues;
- (c) The SEBI Act, 1992 which establishes SEBI to protect investors and develop and regulate securities market; and
- (d) The Depositories Act, 1996 which provides for electronic maintenance and transfer of ownership of dematerialized securities.
- (e) Prevention of Money Laundering Act, 2002 to prevent money-laundering and to provide for confiscation of property derived from or involved in money-laundering.

In addition to above there are key rules and regulations framed time to time by SEBI as per the powers granted to it by the Government of India under SEBI act 1992.

2.3.1. **Securities Contracts (Regulation) Act (SCRA), 1956**

SCRA provides for direct and indirect control of virtually all aspects of securities trading and the running of stock exchanges and aims to prevent undesirable transactions in securities. It gives SEBI regulatory jurisdiction over:

- (a) Stock exchanges through a process of recognition and continued supervision,
- (b) Contracts in securities, and
- (c) Listing of securities on stock exchanges.

As a condition of recognition, a stock exchange complies with conditions prescribed by SEBI. Organized trading activity in securities takes place on a specified recognized stock exchange. The stock exchanges determine their own listing regulations which have to

conform to the minimum listing criteria set out in the Rules like 90% subscription is necessary for listing.

According to section 2(h) of the Indian Contract Act, 1872, a contract is an agreement enforceable by law. Therefore, there has to be an agreement to create a contract and secondly, it has to satisfy certain requirements mentioned in section 10 of the Act, i.e., the agreement has to be between parties competent to contract, with their free consent, for a lawful object and with lawful consideration, and it should not have been declared as void agreement.

The Securities Contracts (Regulation) Act, 1956 [SC(R)A1 was enacted to prevent undesirable transactions in securities by regulating the business of dealing therein and by providing for certain other matters connected therewith. This is the principal Act, which governs the trading of securities in India.

Contract

Under the Securities Contracts (Regulation) Act, 1956 "contract" means a contract for or relating to the purchase or sale of securities

Recognized stock exchange

According to Section 2(f) of the SCRA, a "recognized stock exchange" means a stock exchange, which is for the time being recognized by the Central Government under Section 4 of the Act.

Definition of Security

The term "securities" has been defined in the SCRA. As per Section 2(h), the "Securities' include-

- (i) Shares, scrips, stocks, bonds, debentures, debenture stock or other marketable securities of a like nature in or of any incorporated company or other body corporate,
- (a) Derivative,
- (b) Units or any other instrument issued by any collective investment scheme to the investors in such schemes,
- (ii) Government securities,
 - (iia) such other instruments as may be declared by the Central Government to be securities, and

(iii) Rights or interests in securities.

Derivative was included in the definition of security in order to bring into place regulation of derivatives in 1999. This helped the development of the derivatives market.

Derivative includes-

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

Section 18A provides that notwithstanding anything contained in any other law for the time being in force, contracts in derivative shall be legal and valid if such contracts are-

- (i) Traded on a recognized stock exchange; and
- (ii) Settled on the clearing house of the recognized stock exchange, in accordance with the rules and bye-laws of such stock exchanges.

Spot delivery contract

"Spot delivery contract" has been defined in Section 2(i) to mean a contract which provides for-

- (a) Actual delivery of securities and the payment of a price therefore either on the same day as the date of the contract or on the next day, the actual period taken for the dispatch of the securities or the remittance of money therefore through the post being excluded from the computation of the period aforesaid if the parties to the contract do not reside in the same town or locality;
- (b) Transfer of the securities by the depository from the account of a beneficial owner to the account of another beneficial owner when such securities are dealt with by a depository.

Recognition of Stock Exchanges

Any stock exchange, which is desirous of being recognized for the purposes of this Act, may make an application in the prescribed manner to SEBI (Section 3). The application shall be filed in the prescribed format along with copies of the byelaws and rules of the

stock exchange.

If SEBI and Central Government are satisfied, after making such inquiry as may be necessary in this behalf and after obtaining such further information, if any, as it may require, it may grant recognition to the stock exchange subject to the conditions relating to:

- (i) The qualifications for membership of stock exchanges,
- (ii) The manner in which contracts shall be entered into and enforced as between members,
- (iii) The representation of SEBI on each of the stock exchanges by such number of persons not exceeding three as SEBI may nominate in this behalf; and
- (iv) The maintenance of accounts of members and their audit by chartered accountants whenever such audit is required by SEBI.

Revoking of Recognition

SEBI may withdraw recognition if it is in the interest of the trade or in the public interest by serving a written notice on the governing body of the stock exchange in this regard and after giving an opportunity to -the governing body to be heard in the matter. No person except with the permission of Central Government shall organize or assist in organizing or be a member of any stock exchange (other than a recognized stock exchange) for the purpose of assisting in, entering into or performing any contracts in securities.

Periodical returns and books of accounts for recognized stock exchanges

Every recognized stock exchange shall furnish prescribed periodical returns to SEBI. Every recognized stock exchange and every member thereof shall maintain and preserve for such periods not exceeding five years such books of account, and other documents as the Central Government, after consultation with the stock exchange concerned, may prescribe in the interest of the trade or in the public interest. Also such books of account and other documents shall be subject to inspection at all reasonable times by SEBI. In addition to that every recognized stock exchange shall furnish Central Government/SEBI with a copy of the annual report, and such annual report shall contain such particulars as may be prescribed under the relevant sections.

Bye-Laws of the Stock Exchanges

A recognized stock exchange may, subject to the previous approval of SEBI, make bye-laws for the regulation and control of contracts.

Such bye-laws may provide for:

- (a) The opening and closing of markets and the regulation of the hours of trade,
- (b) A clearing house for the periodical settlement of contracts and differences there under, the delivery of and payment for securities, the passing on of delivery orders and the regulation and maintenance of such clearing house,
- (c) The submission to SEBI by the clearing house as soon as may be after each periodical settlement of all or any of the following particulars as SEBI may, from time to time require, namely:
 - (i) The total number of each category of security carried over from one settlement period to another.
 - (ii) The total number of each category of security, contracts in respect of which have been squared up during the course of each settlement period.
 - (iii) The total number of each category of security actually delivered at each clearing;
- (d) The publication by the clearing house of all or any of the particulars submitted to SEBI under clause
- (e) Subject to the directions, if any, issued by SEBI in this behalf,
- (f) The regulation or prohibition of blank transfers,
- (g) The number and classes of contracts in respect of which settlements shall be made or differences paid through the clearing house,
- (h) The regulation, or prohibition of badlas or carry-over facilities,
- (i) The fixing, altering or postponing of days for settlements,
- (j) The determination and declaration of market rates, including the opening, closing, highest and lowest rates for securities,
- (k) The terms, conditions and incidents of contracts, including the prescription of margin requirements, if any, and conditions relating thereto, and the forms of contracts in writing,
- (l) The regulation of the entering into, making, performance, rescission and termination,

of contracts, including contracts between members or between a member and his constituent or between a member and a person who is not a member, and the consequences of default or insolvency on the part of a seller or buyer or intermediary, the consequences of a breach or omission by a seller or buyer, and the responsibility of members who are not parties to such contracts,

- (m) The regulation of taravani business including the placing of limitations thereon,
- (n) The listing of securities on the stock exchange, the inclusion of any security for the purpose of dealings and the suspension or withdrawal of any such securities, and the suspension or prohibition of trading in any specified securities,
- (o) The method and procedure for the settlement of claims or disputes, including settlement by arbitration,
- (p) The levy and recovery of fees, fines and penalties,
- (q) The regulation of the course of business between parties to contracts in any capacity,
- (r) The fixing of a scale of brokerage and other charges,
- (s) The making, comparing, settling and closing of bargains,
- (t) The emergencies in trade which may arise, whether as a result of pool or syndicated operations or cornering or otherwise, and the exercise of powers in such emergencies including the power to fix maximum and minimum prices for securities,
- (u) The regulation of dealings by members for their own account,
- (v) The separation of the functions of jobbers and brokers,
- (w) The limitations on the volume of trade done by any individual member in exceptional circumstances,
- (x) The obligation of members to supply such information or explanation and to produce such documents relating to the business as the governing body may require.

Contravention of bye-laws

The bye-laws made under this section may specify the bye-laws, the contravention of which shall make a contract entered into otherwise than in accordance with the

byelaws void and provide that the contravention of any of the bye-laws shall render the member concerned liable to fine, expulsion from membership, suspension from membership for a specified period, or any other penalty of a like nature not involving the payment of money.

Suspension of the Governing body of a stock exchange

If SEBI is of the opinion that the governing body of any recognized stock exchange should be superseded, it may serve on the governing body a written notice in this regard specifying the reasons. After giving an opportunity to the governing body to be heard in the matter, SEBI may, by notification in the Official Gazette declare the governing body of such stock exchange to be superseded. It may appoint any person or persons to exercise and perform all the powers and duties of the governing body, and, where more persons than one are appointed, may appoint one of such persons to be the chairman and another to be the vice-chairman thereof.

Suspension of business on a stock exchange

SEBI may direct a recognized stock exchange to suspend such of its business for such period not exceeding seven days and subject to such conditions as may be specified in the notification. If SEBI is of the opinion that the interest of the trade or the public interest requires that the period should be extended, it may, by like notification, extend the said period from time to time.

Illegal or void contracts

If SEBI is satisfied, having regard to the nature or the volume of transactions in securities in any State or area that it is necessary so to do, it may, by notification in the Official Gazette, declare this section to apply to such State or area, and thereupon every contract in such State or area which is entered into after date of the notification otherwise than between members of a recognized stock exchange in such State or area or through or with such member shall be illegal.

Provision for a member to act as a principal

A member of a recognized stock exchange shall not 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.

Powers of SEBI to prohibit contracts in certain cases

If SEBI is of opinion that it is necessary to prevent undesirable speculation in specified securities in any State or area, it may, by notification in the Official Gazette, declare that no person in the State or area specified in the notification shall, save with the permission of the Central Government, enter into any contract for the sale or purchase of any security specified in the notification except to the extent and in the manner, if any, specified under the act.

2.3.2. THE COMPANIES ACT, 1956

The Companies Act, 1956

The Companies Act deals with issue, allotment and transfer of securities and various aspects relating to company management. It provides for standard of disclosure in public issues of capital, particularly in the fields of company management and projects, information about other listed companies under the same management, and management perception of risk factors. It also regulates underwriting, the use of premium and discounts on issues, rights and bonus issues, payment of interest and dividends, supply of annual report and other information.

The Act being voluminous, it is difficult to reproduce even a gist of the sections. A Companies Amendment Bill has been put up in order to simplify this Act. Here, some of the more important provisions of the Act have been mentioned for the purpose of this course.

The Companies Act, 1956 (Act) has over 600 sections, 14 schedules, various rules, which are read along with various circulars, notifications and clarifications issued by the Department of Company Affairs from time to time. The details of the relevant regulatory authority are provided for in each section of the Act. The Act also details the filing of various forms with the Registrar of companies (ROC), Central Government, CLB and provides for maintenance of registers/records and access to outsiders. The Act also lays down penalty provisions through fine and/or imprisonment for noncompliance of the provisions of the Act and on whom the penalty is leviable. The Act also provides for statutory forms to be filed with the different regulators of two kinds -one to be filed even if the events have not taken place e.g. annual returns, annual accounts etc. and the second which is event based and to be filed on happening of certain events.

The enforcement of the provisions of the Act are carried out by the Central Government (through Dept. of Company Affairs), the company Law Board, (CLB) Regional Director of

the CLB, Registrar of Companies. The Securities and Exchange Board of India is the concurrent authority of some matters relating to listed Companies. The administration body under the Companies Act is Company Law Board.

Types of Companies

There can be two forms of Companies namely [section 31]:

- a) Public Companies
- b) Private Companies

Further a Company can be registered as [section 12]:

- a) Limited by shares
- b) Unlimited liability Company
- c) Guarantee Company

Kinds of share capital

The Act provides that a company can have the following kinds of capital [section 8G]:

- (a) Equity Share Capital:
 - With voting rights
 - With differential rights as to dividend, voting rights or otherwise (SDVR)
- (b) Preference Share Capital
 - Cumulative
 - Non Cumulative

Preference share capital

Preference share capital means, with reference to any company limited by share, when formed before or after the commencement of this Act, that part of the share capital of the company which fulfils both the following requirements, namely:

- (a) As respects dividends, it carries or will carry a preferential right to be paid a fixed amount or an amount calculated at a fixed rate, which may be either free of or subject to income tax, and
- (b) As respects capital, it carries or will carry, on a winding-up or repayment of capital, a preferential right to be repaid the amount of the capital paid-up or deemed to have been paid-up.

Equity share capital

Equity share capital means with reference to any such company, all share capital, which is not preference share capital.

Voting rights of Shareholders

The Act defines the voting rights of various share holders. Subject to the provisions of section 89 and sub-section (2) of section 92-

- (a) Every member of a company limited by shares and holding any equity share capital therein shall have a right to vote, in respect of such capital, on every resolution placed before the company; and
- (b) His voting right on a poll shall be in proportion to his share of the paid up equity capital of the company.

Dividend

Dividend can be declared or paid by a company for any financial year

- (a) Out of the profits of the company for that year arrived at after providing for depreciation in accordance with the provisions of section 205 (2) of the Act, or
- (b) Out of the profits of the company for any previous financial year or years arrived at after providing for depreciation in accordance with those provisions and remaining undistributed, or
- (c) Out of both (a and b above), or
- (d) Out of moneys provided by the Central Government or a State Government for the payment of dividend in pursuance of a guarantee given by that Government.

Investor Education and Protection Fund

The Central Government notified the establishment of a Fund called the Investor Education and Protection Fund with effect from October 1, 2001. The fund shall be credited with:

- (a) Amounts in the form of unpaid dividend accounts of companies,
- (b) Application moneys received by companies for allotment of any securities and due for refund,
- (c) Matured deposits with companies,
- (d) Matured debentures with companies,
- (e) The interest accrued on the amounts referred to above (a to d),

The Investor Education and Protection Fund will be utilized for promotion of awareness amongst the investors and for the protection of the interests of investors in accordance with such rules as may be prescribed.

Annual General Meetings (AGM)

Every company shall in each year hold a general meeting as its annual general meeting and shall specify the meeting as such in the notices calling it. The meeting shall be called for a time during business hours, on a day that is not a public holiday, and shall be held either at the registered office of the company or at some other place within the city, town or village in which the registered office of the company is situated. The annual general meeting should be held on or before the earliest of the three relevant dates as prescribed under section 166 together with section 210:

- (a) 6 months from the closure of the financial year,
- (b) 15 months from the previous annual general meeting,
- (c) Last day of the next calendar year.
- (d) A general meeting of a company may be called by giving at least twenty-one days' notice in writing.

Directors

The Act provides for various kinds or class of directors. These are permanent or retiring, executive or non-executive and small shareholders directors. Executive directors can be managing directors, wholesome directors while non executive directors can be independent or nominee of certain class of people like Promoters financial institutions, Government, Consumers etc.

Every public company other than a public company which has become such by virtue of section 43 shall have at least three directors provided that a public company having

- (a) Paid-up capital of five crore rupees or more.
- (b) One thousand or more small share holders.

Remuneration of Directors

The remuneration payable to the directors of a company, including any managing or whole-time director, shall be determined, in accordance with and subject to the provisions of section 198 and this section, either by the articles of the company, or by a resolution or, if the articles so required, by a special resolution, passed by the company in general meeting and the remuneration payable to any such director determined as aforesaid shall be inclusive of the remuneration payable to such director for services rendered by him in any other capacity:

Provided that any remuneration for services rendered by any such director in any other capacity shall not be so included if-

- (a) The services rendered are of a professional nature and

- (b) In the opinion of the Central Government, the director possesses the requisite qualifications for the practice of the profession.

The Act provides certain guidance /limits for related party transactions involving directors. These are:

- Sec. 295: Loans to directors
- Sec 297: Board/Central Government approval for certain contracts where directors are interested.
- Sec. 299: Disclosure of interest by Directors
- Sec. 314: Directors etc. not to hold office or place of profit.

Meetings of the Board of Directors

The Act also provides for meetings of Board of Directors. The Act stipulates that a meeting of the Board of Directors shall be held at least once in every quarter of the calendar year and committees of the Board like investment committee, audit committee, compensation committee etc. shall meet as and when required. The Act also stipulates for certain resolutions which have to be passed by unanimous vote of the Board of Directors present at the meeting and certain resolutions which cannot be passed by circulation.

The Act also stipulates that an individual can be a director in maximum 15 companies excluding directorships in private companies, unlimited companies, Section 25 companies and alternate directors.

Shareholders Meetings

The Act also stipulates for shareholder meetings. These are:

- 1) Statutory meeting: to be held once in a lifetime.
- 2) Annual General Meeting (AGM): to be held once every calendar year.
- 3) Extra ordinary General Meeting (EGM): whenever required.

The Act stipulates that an AGM must transact the following ordinary business viz. adoption of accounts, declaration of dividend, appointment of retiring director(s) appointment and remuneration of auditors. Any other business is deemed to be "Special Business" and will have to be supported by explanatory statement [section 173].

Gap between two AGM s cannot exceed 15 months. A 21-day clear notice will have to be provided to the shareholders before an AGM and any shorter notice can be allowed if consent is sought from all the members. The annual accounts must be adopted within 6 months from closure of financial year. EGM shall transact all those business, which are to be decided by shareholders, and all items are special business items.

Postal Ballot

The Act introduced for provisions of Postal Ballot (PB) for taking up certain matters requiring shareholders approval. [section 192A] These provisions are applicable only to listed companies and the matters that can be transacted by PB are object clause, buy-back, shares with differential voting rights, shifting of registered office, variation of class rights, appointment of SSD, sale of undertaking and borrowing of loans/guarantees in excess of- ceiling laid down by the Act.

Directors' Report

The Director's Report is the part of the annual accounts and exhibits the Board of Directors view of the state of affairs of the company. It contains all the appropriations out of the profits of the company including dividend on equity and preference capital, material changes in the affairs of the company after the end of financial year, information on conservation of energy and foreign exchange earnings and outgo, particulars of employees including compensation etc.

It also contains a Directors responsibility statement which contains confirmation that accounting standards are being followed, selection and application of accounting policies is consistent, accounts are being prepared and sufficient care is being exercised for maintenance of accounting records and safe guarding of assets and detecting fraud and other irregularities.

Books of account

Every company has to keep at its registered office proper books of account with respect to-

- (a) All sums of money received at its registered office and offices expended by the company and the matters in respect of which the receipt and expenditure take place,
- (b) All sales and purchases of goods by the company, and
- (c) The assets and liabilities of the company, and
- (d) In case of a company pertaining to any class of companies engaged in production, processing, manufacturing or mining activities, such particulars relating to utilization of material or labor or to other items of cost as may be prescribed, if such class of companies is required, by the Central Government to include such particulars in the books of accounts.

These books of accounts of every company relating to a period of eight years immediately preceding the current year together with the vouchers relevant to any entry in such books of account shall be preserved in good order.

Public Deposits

Deposits from the public are also regulated by certain provisions in the Act. These provide that a private company cannot accept deposit from people other than shareholders, directors or their relatives and failure to repay 'small depositors' (upto Rs.20000) to be reported to CLB within 60 days. No new deposits to be accepted if the company has overdue deposits. A disclosure of default has to be disclosed in every subsequent invitation for deposits and working capital loan from any bank has to be first applied towards repayment of deposits from small depositors.

Declaration of Dividend

Dividend on share capital has to be declared by shareholders in an AGM based on Board of Directors' recommendation, while an interim dividend can be declared by board. Dividend has to be deposited in separate bank account within 5 days of declaration and has to be paid within 30 days of declaration.

Public Issue

An offer/invitation for placement of security to 50 or more persons is treated as public issue. Financial institution/ bank need not file prospectus every time they raise funds. They can file "shelf prospectus" valid for 1 year along with "Information Memorandum" (IM) and have to update IM to be submitted for each offer.

Auditors

SEBI has been authorized to administer certain sections of act to ensure investor protection. Any adverse comments in auditors report to be given in thick type or italics. Any auditor cannot hold securities with voting rights in the company while acting as an auditor of that company. Every company with a paid up share capital Rs. 5 crore more will have to appoint an audit committee [section 292A].

Merger and Demerger

Section 391 to section 394 provides for procedures for merger/demergers of Companies. The Companies Act permits for merger /demerger or other arrangements between the Company and its Members and or Creditors or a class of them. Merger/ demerger are required to be approved by Members and Creditors after which it needs to be sanctioned

by the High Court of the relevant jurisdiction.

Reduction of Capital

Section 100 permits reduction of capital. A Company can reduce its capital bypassing a special resolution and the confirmation by the High Court of the relevant Jurisdiction. The capital can be reduced in any way and in particular by:

- (a) Extinguishing or reducing the liability on its shares in respect of share capital not paid up.
- (b) By canceling any paid up share capital which is lost or is unrepresentative by available assets.
- (c) By reducing the liability by paying of any paid up share capital which is in excess of the wants of the company.

Buy back of shares

Section 77 deals with buyback of shares and financing of own shares. No Public Company is permitted to directly or indirectly provide any financial assistance for the purpose of or in connection with a purchase or subscription of its own shares. There are certain exceptions in respect of loans to employees or employee trusts.

A Company is permitted to buyback its shares in accordance with SEBI/Central Government guidelines for companies listed on a Stock Exchange provided the buyback is less than 25% of the total paid up capital and free reserves and the buyback of equity shares in any financial year do not exceed 25% of the total paid up equity capital. No company shall purchase its own shares or other specified securities unless the buy-back is authorized by its articles and all the shares or other specified securities for buy-back are fully paid-up.

A company may buy-back its shares from its existing shareholders on a proportionate basis. A company can buy-back its securities from open market through book-building process or the stock exchange but it cannot buy back its securities from any person through negotiated deals, spot transactions or private arrangement. The offer for buy back shall remain open to the members for a period of not less than fifteen days but not exceeding thirty days. The company making offer for buyback is required to make deposit in an escrow account, as and by way of security for performance of its obligations, consisting of Cash deposited with a scheduled commercial bank, Bank guarantee in favor of the merchant banker, Deposit of acceptable securities with appropriate margin,

with the merchant banker.

The consideration for buy-back can be paid by the company by way of Cash. A company may purchase or buy back its own shares or other specified securities out of its free reserves or the securities premium account or the proceeds of any shares or other specified securities or any combination of the above three. The public announcement for buy back of securities shall inter alia contain the necessity for the buy back, the process and methodology to be adopted for the buy back, the maximum amount to be invested under the buy back.

2.3.3. **The SEBI Act, 1992**

Major part of the liberalization process was the repeal of the Capital Issues (Control) Act, 1947, in May 1992. With this, Governments control over issues of capital, pricing of the issues, fixing of premia and rates of interest on debentures etc. ceased, and the office which administered the Act was abolished and the market was allowed to allocate resources to competing uses. However, to ensure effective regulation of the market, SEBI Act, 1992 was enacted to establish SEBI with statutory powers for:

- (a) Protecting the interests of investors in securities,
- (b) Promoting the development of the securities market, and
- (c) Regulating the securities market.

Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market. It can conduct enquiries, audits and inspection of all concerned and adjudicate offences under the Act. It has powers to register and regulate all market intermediaries and also to penalize them in case of violations of the provisions of the Act, Rules and Regulations made there under. SEBI has full autonomy and authority to regulate and develop an orderly securities market.

The Central Government has made Securities Contracts (Regulation) Rules, 1957, as required by subsection (3) of the Section 30 of the Securities Contracts (Regulation) Act, 1956 for carrying out the purposes of that Act. The powers under the SC(R) R, 1957 are exercisable by SEBI.

Qualifications for membership of recognized stock exchanges

These are stated in Rule 8. A person is eligible for admission as a member of a recognized stock exchange if he has worked for not less than two years as a partner with, or as an authorized assistant or authorized clerk or remisier or apprentice to, a

member; or he agrees to work for a minimum period of two years as a partner or representative member with another member and to enter into bargains on the floor of the stock exchange and not in his own name but in the name of such other member; or he succeeds to the established business of a deceased or retiring member who is his father, uncle, brother or any other person who is, in the opinion of the governing body, a close relative, and if:

- (i) He is of twenty-one years of age or more,
- (ii) He is a citizen of India,
- (iii) He has not been adjudged bankrupt or he has not been proved to be insolvent,
- (iv) He has not compounded with his creditors,
- (v) He has not been convicted of an offence involving fraud or dishonesty;
- (vi) He is not engaged as principal or employee in any business other than that of securities except as a broker or agent not involving any personal financial liability,
- (vii) He has not been at any time expelled or declared a defaulter by any other stock exchange,
- (viii) He has not been previously refused admission to membership unless a period of one year has elapsed since the date of such rejection.

Conditions for getting corporate membership of the stock exchange

A company as defined in the Companies Act, 1956 shall be eligible to be elected as a member of a stock exchange if-

- (i) Such company is formed in compliance with the provisions of section 322 of the said Act,
- (ii) A majority of the directors of such company are shareholders of such company and also members of that stock exchange; and
- (iii) The directors of such company, who are members of that stock exchange, have ultimate liability in such company:

A company as defined in the Companies Act, 1956 (1 of 1956), shall also be eligible to be elected as a member of a Stock Exchange if-

- (i) Such company is formed in compliance with the provisions of Section 12 of the said Act;

- (ii) Such company undertakes to comply with such financial requirements and norms as may be specified by SEBI for the registration of such company under sub-section (1) of section 12 of SEBI Act, 1992,
- (iii) The directors of the company are not disqualified for being members of a stock exchange under the provisions of the Act and the Director of the company had not held the offices of the Director in any company which had been a member of the stock exchange and had been declared defaulter or expelled by the stock exchange; and
- (iv) Not less than two directors of the company are persons who possess a minimum two years' experience-
 - a) In dealing in securities; or
 - b) As portfolio managers; or
 - c) As investment consultants.

Although SEBI was established as a Government Department in 1988, the passing of the SEBI Act gave it statutory powers to regulate the Indian Securities Market. SEBI Act, 1992, made SEBI the apex regulatory body in the Indian Securities Market. The Act overrode the powers of the various Government agencies in other legislations like the Companies Act, SCRA, etc. and vested the powers relating to securities market with SEBI. The Securities and Exchange Board of India is a body corporate having perpetual succession and a common seal.

Regulatory jurisdiction of SEBI

SEBI's regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market. SEBI can specify the matters to be disclosed and the standards of disclosure required for the protection of investors in respect of issues; can issue directions to all intermediaries and other persons associated with the securities market in the interest of investors or of orderly development of the securities market; and can conduct enquiries, audits and inspection of all concerned and adjudicate offences under the Act. In short, it has been given necessary autonomy and authority `market, such as brokers and sub-brokers, underwriters, merchant bankers, bankers to the issue, share transfer agents and registrars to the issue, are now required to register with SEBI and are governed by its regulations. A code of conduct for each intermediary has been prescribed in the regulations; capital adequacy and other norms have been specified; a system of monitoring and inspecting their operations has been instituted to enforce

compliance; and disciplinary actions are being taken against the intermediaries violating any regulation.

Constitution of SEBI

The Central Government has constituted a Board by the name of SEBI under Section 3 of SEBI Act. The head office of SEBI is in Mumbai. SEBI may establish offices at other places in India. It has offices in Mumbai, Calcutta, New Delhi and Chennai.

SEBI consists of the following members, namely:-

- (a) A Chairman;
- (b) Two members from amongst the officials of the Ministries of the Central Government dealing with Finance and Law;
- (c) One member from amongst the officials of the Reserve Bank of India;
- (d) Two other members to be appointed by the Central Government. The general superintendence, direction and management of the affairs of SEBI vests in a Board of Members, which exercises all powers and do all acts and things which may be exercised or done by SEBI. The Chairman and the other members are from amongst the persons of ability, integrity and standing who have shown capacity in dealing with problems relating to securities market or have special knowledge or experience of law, finance, economics, accountancy, administration or in any other discipline which, in the opinion of the Central Government, shall be useful to SEBI.

Functions of SEBI

SEBI has been obligated to protect the interests of the investors in securities and to promote and development of, and to regulate the securities market by such measures, as it thinks fit. SEBI, in particular, has powers for:-

- (a) Regulating the business in stock exchanges and any other securities markets;
- (b) Registering and regulating the working of stock brokers, sub-brokers, share transfer agents, bankers to an issue, trustees of trust deeds, registrars to an issue, merchant bankers, underwriters, portfolio managers, investment advisers and such other intermediaries who may be associated with securities markets in any manner;

- (c) Registering and regulating the working of the depositories, participants, custodians of securities, foreign institutional investors, credit rating agencies and such other intermediaries as SEBI may, by notification, specify in this behalf;
- (d) Registering and regulating the working of venture capital funds and collective investment schemes including mutual funds;
- (e) Promoting and regulating self-regulatory organizations;
- (f) Prohibiting fraudulent and unfair trade practices relating to securities markets;
- (g) Promoting investors' education and training of intermediaries of securities markets;
- (h) Prohibiting insider trading in securities;
- (i) Regulating substantial acquisition of shares and take-over of companies;
- (j) Calling for information from, undertaking inspection, conducting inquiries and audits of the stock exchanges, mutual funds and other persons associated with the securities market and intermediaries and self-regulatory organizations in the securities market;
- (k) Performing such functions and exercising according to Securities Contracts (Regulation) Act, 1956, as may be delegated to it by the Central Government;
- (l) Levying fees or other charges for carrying out the purpose of this section;
- (m) Conducting research for the above purposes;
- (n) Calling from or furnishing to any such agencies, as may be specified by SEBI, such information as may be considered necessary by it for the efficient discharge of its functions;
- (o) Performing such other functions as may be prescribed.

Powers of SEBI

While exercising these powers, SEBI has the same powers as are vested in civil court under the Code of Civil Procedure, 1908 while trying a suit, in respect of the following matters:

- (a) The discovery and production of books of account and other documents, at such place and such time as may be specified by SEBI,
- (b) Summoning and enforcing the attendance of persons and examining them on oath, and
- (c) Inspection of any books, registers and other documents of any person referred to in section 12.

The importance of the certificate of registration for Intermediaries

A person in the capacity of an intermediary such as Stock-broker, Sub- broker, Share transfer agent, Banker to an issue, Trustee of trust deed, Registrar to an issue, Merchant banker, Underwriter, Portfolio manager, Investment adviser, Depository, Depository Participant, Custodian of securities, Foreign institutional investor, Credit rating agency or Collective investment schemes, Venture capital funds, Mutual fund, and any other intermediary associated with the securities market shall buy, sell or deal in securities after obtaining a certificate of registration from SEBI, as required by Section 12.

Penalties are provided under SEBI Act

SEBI Act, 1992 provides for two alternative types of punishment for violation of the provisions of the Act. They are:

- (a) Suspension or cancellation of certificate of registration to be imposed by SEBI only as per regulation framed by SEBI [Section 12 (3)],
- (b) Monetary penalty to be imposed by an adjudicating officer appointed by SEBI, as per rules framed by Central Government.

A market intermediary, who fails to comply with any condition of registration, and/or contravenes any of the provisions of the SEBI Act/SC(R)/Rules and Regulation made there under, shall be liable to suspension of registration, after enquiry, for a specified period or cancellation of registration.

An adjudicating officer appointed by SEBI is not officer below the rank of a division chief of SEBI. He holds an enquiry after giving a person reasonable opportunity of being heard for the purpose of determining if any violation has taken place and imposing penalty.

To ensure fair enquiry and penalty, it has been provided that appeal against the orders of adjudicating officers would lie with SAT. Similarly, any person aggrieved by an order of SEBI can prefer an appeal before SAT. Any person aggrieved by an order or decision of SAT may file an appeal to the High Court.

SEBI has framed several rules for efficient functioning of securities markets in India.

These are:

- i. SEBI (Stock Brokers & Sub-Brokers) Rules, 1992
- ii. SEBI (Insider Trading) Regulations, 1992
- iii. SEBI (Prohibition Of Fraudulent And Unfair Trade Practices Relating To

Securities Markets) Regulations, 1995.1 SEBI (Stock Brokers & Sub-Brokers) Rules, 1992

SEBI (STOCK BROKERS & SUB-BROKERS) RULES, 1992

The Central Government has made SEBI (Stock-brokers and Sub-brokers) Rules, 1992 under the powers conferred by section 29 of SEBI Act, 1992. These rules provide the definition of a Stock-broker and a Sub-broker and specify that they shall not buy, sell, and deal in securities, unless they hold a certificate granted by SEBI. It also provides for:

- Capital Adequacy Norms (Rule 3) for each stockbroker consisting of two components: Base minimum capital, and Additional or optional capital related to volume of business. The amount of base minimum capital varies from exchange to exchange. The form in which the base minimum capital has to be maintained is also stipulated by SEBI. Exchange may stipulate higher levels of base minimum capital at their discretion. The member will be stopped from trading when he violates 100 % capital adequacy.
- Conditions for grant of certificate to stockbroker (Rule 4) imposed by SEBI to grant a certificate to a stockbroker subject to fulfillment of certain conditions.
- Conditions of grant of certificate to sub-broker (Rule 5) imposed by SEBI to grant a certificate to a sub-broker subject to fulfillment of certain conditions,
- Definition of small investor as an investor buying or selling securities on a cash transaction for a market value not exceeding rupees fifty thousand in aggregate on any day as shown in a contract note issued by the stock-broker.
- Procedures for registration of Stock Broker and Sub- broker.
- Eligibility criteria for qualifying a person to be a stockbroker or sub-broker.
- Code of Conduct that is to be followed by the stockbroker holding a certificate at all times.
- Fees payable by every applicant eligible for grant of a certificate and the manner in which it should be paid.

- Suspension of the registration certificate by SEBI where a stock-broker fails to pay the fees as provided in regulation 10, whereupon the stock-broker shall cease to buy, sell or deal in securities as a stock-broker. A penalty of suspension of registration of a stock-broker may be imposed if the stock broker is guilty of misconduct or if he fails to resolve the complaints of the investors or if he does not follow the code of conduct.
- Maintenance of proper books of accounts, records as specified by every stockbroker and sub broker for a period of five years, as required by Regulation 17. Every stockbroker shall intimate to SEBI the place where the books of accounts, records and documents are maintained. Every stock broker shall, after the close of each accounting period, furnish to SEBI if so required as soon as possible but not later than six months from the close of the said period a copy of the audited balance sheet and profit and loss account, as at the end of the said accounting period.
- Appointment of Compliance Officer, who are on the records of the Exchange, by every stock broker who shall be responsible for monitoring the compliance of the Act, rules and regulations, notifications, guidelines, instructions etc. issued by SEBI or the Central Government and for redressal of investors, grievances. The compliance officer shall immediately and independently report to SEBI any non-compliance observed by him (Regulation 18A).
- Procedure for inspection to be followed by SEBI which may appoint one or more persons as inspecting authority to undertake inspection of the books of accounts, other records and documents of the stock-brokers under Regulation 19. Inspection is carried out for the purposes of ensuring that the books of accounts and other books are being maintained in the manner required and that the various provisions of the relevant Acts and the rules made there under are being complied with. .Procedure in case of default which provides that any stock-broker, who fails to comply with any conditions subject to which registration has been granted; and/ or contravenes any of the provisions of the relevant Acts, rules or regulations made there under, and/ or the rules, regulations and byelaws of the Stock exchange; shall be liable to suspension of registration, after the inquiry, for a specified period; or cancellation of registration (Regulation 25).

- Imposition of penalty in case of suspension of registration of a stock-broker may be done if the stock broker is held as guilty of certain non-compliance as stated in the penalty clauses of these regulations.
- Fees to be paid by Stock-broker and Sub-broker are specified in Schedule III which sets out details as to how much fee is payable by them based on the annual turnover and the number of years from the date of initial registration as a stock- broker. It also specifies the manner of fee to be paid.

SEBI (INSIDER TRADING) REGULATIONS, 1992

Insider Trading

Insider trading is prohibited and is considered an offence vide SEBI (Insider Trading) Regulations, 1992. The Regulations prohibits an insider from dealing (on his own behalf or on behalf of others) in securities on the basis of unpublished price sensitive information, communicating such information and also from counseling any other person to deal in securities of any company on the basis of such information. Unpublished price sensitive information, which if published or known, is likely to have an impact on the market price of the securities of that company. Such information may relate to the financial results of the company, declaration of dividends, issue of rights issues and bonus shares, amalgamation, mergers, takeovers, any major policy changes, etc. The regulations enable SEBI, on the basis of any complaint or otherwise, to take steps to investigate an allegation of insider trading and appoint inspectors. On the basis of the report of the inspectors, SEBI is empowered to prosecute persons found prima facie guilty of insider trading in an appropriate court. Person(s) violating the provisions of regulations is (are) liable to be punished with imprisonment or fine or both.

Code of conduct

In order to strengthen insider-trading regulations, SEBI has proposed a code of conduct for listed companies, its employees, analysts, market intermediaries and professional firms. The regulations also requires initial and continual disclosure of shareholding by directors or officers, who are insiders, and substantial shareholders (holding more than 5% shares/voting rights) of listed companies.

Dealing in securities

According to SEBI (Insider-Trading) Regulations, 1992, "dealing in securities" means an act of buying, selling or agreeing to buy, sell or deal in any securities by any person

either as principal or agent.

Definition of insider

An insider means any person who is or was connected with the company, or is deemed to have been connected with the company, and who is reasonably expected to have access, by virtue of such connection, to unpublished price sensitive information in respect of securities of the company, or who has received or has had access to such unpublished price sensitive information.

Connected person

A connected person means any person who:

- is a director of a company; or
- is deemed to be a director of that company; or
- occupies the position as an officer or an employee of the company; or
- holds a position involving a professional or business relationship between himself and the company and who may reasonably be expected to have an access to unpublished price sensitive information in relation to that company.

A person is deemed to be a connected person if such person is

- a company under the same management or group or Any subsidiary company thereof; or
- an official or a member of a stock exchange or of a clearing house of that stock exchange, or A dealer in or any employee of such member or dealer of a stock exchange; or
- a merchant banker, share transfer agent, registration issue, debenture trustee, broker, portfolio manager, Investment Advisor, sub-broker, Investment Company or an employee thereof, or
- a member of the Board of Trustees of a mutual fund; or
- a member of the Board of Directors of the Asset Management Company of a mutual fund or is an employee thereof who have a fiduciary relationship with the company; or
- a member of the Board of Directors, or an employee, of a public financial institution; or
- an official or an employee of a self regulatory organization recognized or authorized by the Board of a regulatory body; or

- is a relative of any of the aforementioned persons; or
- is a banker of the company.

Unpublished price sensitive information

Unpublished price sensitive information means any information which relates to the following matters or is of concern, directly or indirectly, to a company, and is not generally known or published by such company for general information, but which if published or known, is likely to materially affect the price of securities of that company in the market -

- (i) Financial results (both half-yearly and annual) of the company;
- (ii) Intended declaration of dividends (both interim and final);
- (iii) Issue of shares by way of public rights, bonus, etc.;
- (iv) Any major expansion plans or execution of new projects;
- (v) Amalgamation, mergers and take-overs;
- (vi) Disposal of the whole or substantially of the undertaking;
- (vii) Such other information as may affect the earnings of the company;
- (viii) Any changes in policies, plans or operations of the company.

Prohibition on insiders

No insider shall either on his own behalf or on behalf of any other person, deal in securities of a company listed on any stock exchange on the basis of any unpublished price sensitive information; or

Communicate any unpublished price sensitive information to any person, with or without his request for such information, except as required in the ordinary course of business or under any law; or

counsel or procure any other person to deal in securities of any company on the basis of unpublished price sensitive information; Any insider, who deals in securities or communicates any information or counsels any person dealing in securities in contravention of the provisions of regulation shall be guilty of insider trading (regulation 4).

Investigative Powers Vested in SEBI

Where SEBI, on the basis of written information in its possession, is of the opinion that it is necessary to investigate and inspect the books of account, other records and documents of an insider for any of the purposes specified below, it may appoint an

investigating authority/ auditor for the purpose of:

- investigating into the complaints received from investors, intermediaries or any other person on any matter having a bearing on the allegations of insider trading; and
- investigating suo-moto upon its own knowledge or information in its possession to protect the interest of investors in securities against breach of these regulations. The investigating authority shall, within one month of the conclusion of the investigation submit an investigation report to SEBI. SEBI shall after consideration of the investigation report communicate the findings to the insider and he shall be given an opportunity of being heard before any action is taken by SEBI on the findings of investigating authority. On receipt of the explanation, if any, from the insider, SEBI may call upon the insider to take such measures as SEBI may deem fit to protect the interest of investors and in the interest of the securities market and for due compliance with the provisions of the Act, rules made there under and these regulations.

SEBI can take any of the following actions:

- (a) Directing the insider-not to deal in securities in any particular manner;
- (b) Prohibiting the insider from disposing of any of the securities acquired in violation of these regulations
- (c) Restraining the insider to communicate or counsel any person to deal in securities.

Any person aggrieved by an order of SEBI, on and after the commencement of the securities laws (Second Amendment) Act, 1999 (i.e., after 16th December 1999), under these regulations may prefer an appeal to a Securities Appellate Tribunal (SAT) having jurisdiction in the matter.

SEBI (PROHIBITION OF FRAUDULENT AND UNFAIR TRADE PRACTICES RELATING TO SECURITIES MARKETS) REGULATIONS, 1995

The SEBI (Prohibition of Fraudulent and Unfair Trade Practices in relation to the Securities Market) Regulations, 1995 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. These regulations empower SEBI to investigate into violations committed by any person, including an investor, issuer or an intermediary associated with the securities market. The regulations specifically prohibit market manipulation, misleading statements to induce sale or purchase of

securities, unfair trade practices relating to securities. SEBI can conduct investigation, suo-moto or upon information received by it, through an investigation officer in respect of conduct and affairs of any person dealing, buying/selling/dealing in securities. Based on the report of the investigating officer, SEBI can initiate action for suspension or cancellation of registration of an intermediary.

Frauds

The regulations define frauds as acts committed by a party to a contract or by his agent, with intent to deceive another party or his agent or to induce him to enter into the contract. Fraud includes any of the following acts committed by a party to a contract, or with his connivance, or by his agent, with intent to deceive another party thereto or his agent, or to induce him to enter into the contract:

Through suggestion, as to a fact which is not true, by one who does not believe it to be true; By active concealment of a fact by one having knowledge or belief of the fact; By making a promise without any intention of performing it; By any other act fitted to deceive; and

Through any such act or omission as the law specially declares to be fraudulent.

The regulation prohibits:

- (1) Dealings in securities in a fraudulent manner,
- (2) Market manipulation,
- (3) Misleading statements to induce sale or purchase of securities, and
- (4) Unfair trade practice relating to securities

SEBI Investigations

SEBI conducts investigation, suo-moto or upon information received by it, through an investigating officer in respect of the conduct and affairs of any person buying, selling or otherwise dealing in securities. The investigation is conducted:

- to ascertain whether there are any circumstances which would render any person guilty of having contravened any of these regulations or any directions issued there under;
- to investigate into any complaint of any contravention of the regulation, received from any investor, intermediary or any other person;

Duties of person being investigated

He should produce to the Investigating Officer such books, accounts and other

documents in his custody or control and furnish him with such statements and information as the said officer may reasonably require for the purposes of the investigation and extend full cooperation to him.

Working of the Investigating officer

The Investigating Officer shall conduct investigation as directed by SEBI. He has power to examine orally and to record the statement of the person concerned, any director, partner, member or employee of such person. The Investigating Officer shall, on completion of the investigation, after taking into account all relevant facts and submissions made by the person concerned, submit a report to SEBI.

Actions that can be taken by SEBI

SEBI, on receipt of the report from the investigating officer may issue directions for ensuring due compliance with the provisions of the Act, Rules and Regulations made there under. The directions may be issued for the following purposes:

Directing the person concerned not to deal in securities in any particular manner;

Requiring the person concerned to call upon any of its officers, other employees or representatives to refrain from dealing in securities in any particular manner;

Prohibiting the person concerned from disposing of any of the securities acquired in contravention of these regulations;

Directing the person concerned to dispose of any such securities acquired in contravention of these Regulations, in such manner as SEBI may deem fit, for restoring the status-quo ante. SEBI may, in the circumstances specified in Regulation 11, and without prejudice to its power under Regulation 12, initiate action for suspension or cancellation of registration of an intermediary holding a certificate of registration under section 12 of the Act.

2.3.4. THE DEPOSITORIES ACT, 1996

The Depositories Act, 1996 provides for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed, accuracy and security by:

(a) Making securities of public limited companies freely transferable subject to certain

exceptions;

(b) Dematerializing the securities in the depository mode; and

(c) Providing for maintenance of ownership records in a book entry form.

In order to streamline the settlement process, the Act envisages transfer of ownership of securities electronically by book entry without making the securities move from person to person. The Act has made the securities of all public limited companies freely transferable, restricting the company's right to use discretion in effecting the transfer of securities, and the transfer deed and other procedural requirements under the Companies Act have been dispensed with.

The Depositories Act, 1996 was enacted to provide for establishment of depositories in securities and for matters connected therewith or incidental thereto. It came into force from 20th September, 1996. The act is administered by SEBI.

Depository

"Depository" means a company, formed and registered under the Companies Act, 1956 and which has been granted a certificate of registration under SEBI Act, 1992.

Beneficial Owner

"Beneficial owner" means a person whose name is recorded as such with a depository.

Issuer

"Issuer" means any entity making an issue of securities.

Participant

"Participant" means a person registered as such under sub-section (1A) of section 12 of SEBI Act, 1992.

Registered Owner

"Registered owner" means a depository whose name is entered as such in the register of the issuer.

Function of a Depository

A depository shall enter into an agreement in the specified format with one or more participants as its agent. Any person, through a participant, may enter into an agreement, in such form as may be specified by the bye-laws, with any depository for availing its services.

Surrender of physical certificate to depository

Any person who has entered into an agreement with a depository is required to surrender the certificate of security, for which he seeks to avail the services of a

depository, to the issuer in such manner as may be specified by the regulations. The issuer, on receipt of certificate of security, shall cancel the certificate of security and substitute in its records the name of the depository as a registered owner in respect of that security and inform the depository accordingly. A depository shall, on receipt of information enter the name of the person in its records, as the beneficial owner.

Registration of transfer of securities with depository

Every depository, on receipt of intimation from a participant, is required to register the transfer of security in the name of the transferee. If a beneficial owner or a transferee of any security seeks to have custody of such security, the depository shall inform the issuer accordingly. The eligibility criteria for admission of securities into the depository are specified by the Regulations.

Option to receive certificates or hold security with depository

Every person subscribing to securities offered by an issuer shall have the option either to receive the security certificates or hold securities with a depository. Where a person opts to hold a security with a depository, the issuer shall intimate such depository the details of allotment of the security, and on receipt of such information the depository shall enter in its records the name of the allottee as the beneficial owner of that security.

Holding of securities by depository

All securities held by a depository shall be dematerialized and shall be in a fungible form.

Rights of depository and beneficial owner

A depository is deemed to be the registered owner for the purposes of effecting transfer of ownership of security on behalf of a beneficial owner. The depository as a registered owner does not have any voting rights or any other rights in respect of securities held by it. The beneficial owner shall be entitled to all the rights and benefits and be subjected to all the liabilities in respect of his securities held by a depository.

Pledging of securities held with depository

A beneficial owner may create a pledge or hypothecation in respect of a security owned by him through a depository. Every beneficial owner shall give intimation of such pledge or hypothecation to the depository and such depository shall thereupon make entries in its records accordingly. Any entry in the records of a depository under Section 12 (2) shall

be evidence of a pledge or hypothecation.

Furnishing of information by depository

Every depository is required to furnish to the issuer information about the transfer of securities in the name of beneficial owners at such intervals and in such manner as may be specified by the bye-laws. Every issuer shall make available to the depository copies of the relevant records in respect of securities held by such depository.

Option to opt out in respect of any security

If a beneficial owner seeks to opt out of a depository in respect of any security he shall inform the depository accordingly. The depository shall on receipt of intimation make appropriate entries in its records and shall inform the issuer. Every issuer shall, within thirty days of the receipt of intimation from the depository and on fulfillment of such conditions and on payment of such fees as may be specified by the regulations, issue the certificate of securities to the beneficial owner or the transferee, as the case may be.

Indemnification of loss by depository in certain cases

Any loss caused to the beneficial owner due to the negligence of the depository or the participant, the depository shall indemnify such beneficial owner. Where the loss due to the negligence of the participant is indemnified by the depository, the depository shall have the right to recover the same from such participant.

2.3.5. Prevention of Money Laundering Act, 2002

The primary object of the Act is to prevent money-laundering and to provide for confiscation of property derived from or involved in money-laundering. The term money-laundering is defined as whoever acquires, owns, possess or transfers any proceeds of crime; or knowingly enters into any transaction which is related to proceeds of crime either directly or indirectly or conceals or aids in the concealment of the proceeds or gains of crime within India or outside India commits the offence of money-laundering. Besides providing punishment for the offence of money-laundering, the Act also provides other measures for prevention of Money Laundering. The Act also casts an obligation on the intermediaries, banking companies etc to furnish information, of such prescribed transactions to the Financial Intelligence Unit-India, to appoint a principal officer, to maintain certain records etc.

2.4. SAT

The Securities Appellate Tribunal or SAT has been constituted so that the aggrieved

parties can appeal against orders of SEBI. This is an independent tribunal or the presiding officer of SAT will be a sitting or a retired judge of the Supreme Court or the Chief Justice of the High Court. SAT will have a presiding officer and two other members appointed by the Central Government. Once an appeal is received by SAT, it will notify SEBI and aggrieved person and conduct a hearing. SAT also has powers to summon documents for evidence and examining witnesses and documents. SAT can uphold the decision of SEBI or reverse it or modify it. The Securities Appellate Tribunal shall have, for the purpose of discharging their functions under the SEBI Act, the same powers as are vested in a civil court.

2.5. ARBITRATION

SEBI has instructed the exchange to have arbitration committees so that differences, disputes and claims can be settled effectively and in a short time.

All contracts of sale and purchase of securities entered into on the trading platform of the Exchange are subject to Mumbai jurisdiction and any disputes arising in respect of such contracts are necessarily required to be submitted for arbitration. However, the complaints are in the first case generally investigated by the Exchange. For the purpose of investigation, documentary proof like contract notes, bills, statement of accounts and relevant documentary proof are called for from the parties. If required; personal meetings of the parties are also arranged in cases where issues to be resolved are of a complicated nature. As a last resort, where there are claims and counter-claims and the matter cannot be easily resolved by the intervention of the Exchange officials, the parties are advised to file an arbitration reference. The arbitration award is binding on both the parties. However, there is appeal against this also.

The aggrieved party, within fifteen days of the receipt of the award from the arbitrator, can file to the arbitration tribunal for re-hearing the whole case. On receipt of the appeal, the Exchange appoints an appeal bench consisting of five arbitrators who re-hear the case and then give the decision. The judgment of the appeal bench is by a majority decision and binding on both the parties. The final award of the bench is enforceable as if it were the decree of the Court.

Arbitration at BSE is a quasi Judicial Mechanism. The Arbitration between Trading member and non-Trading member is governed under Bye-laws 248 to 281 of the Rules, Bye-laws and Regulations of the Exchange.

The Exchange constitutes Arbitration Panel every year to resolve the disputes between Trading Members and the Clients inter-se.

CHAPTER 3

SENSEX & OTHER INDICES

3.1. INTRODUCTION

An Index is used to summarize the price movements of a unique set of goods in the financial, commodity, forex or any other market place. Financial indices are created to measure price movements of stocks, bonds, T-bills and other type of financial securities. More specifically, a stock index is created to provide investors with the information regarding the average share price movement in the stock market. Broad indices are expected to capture the overall behavior of equity market and need to represent the return obtained by typical portfolios in the country.

The primary function of a stock index is to serve as a barometer of the equity market. The ups and downs in the index represent the movement of the equity market. Any investor can look at the performance of the index to find out how the equity market is doing.

The availability of an index lends itself to forecasting of the market conditions by technical analyst. Technical analysts believe that historical share price movements can be used to predict the future price movements. They use the stock index data to forecast the direction, which the market is likely to move in near future.

The most important use of an equity market index is to act as a benchmark for a portfolio of stocks. All diversified portfolios, belonging either to retail investors or mutual funds, use the common stock index as a yardstick for evaluation of their performance.

Finally indices are useful in modern financial applications of derivatives. Indices serve as the underlying for futures and options products and also for the Exchange Traded Funds. In fact, Barclays Global Investors (BGI), the global leader in ETFs through its iShares brand, has created the 'iShares BSE SENSEX India Index ETF'. This ETF tracks the SENSEX, India's only free float index that captures the performance of a diversified portfolio of 30 blue-chip companies listed on the BSE. The ETF enables investors in Hong Kong to take an exposure to the Indian equity market or hedge their existing portfolios. The 'iShares BSE SENSEX India Index ETF' as it is called is listed on the Hong Kong Exchange and is posting healthy daily volumes.

There are different methodologies by which stock indices are calculated. They are;

- i. Market Capitalization Methodology: It takes into account the entire equity for

calculation of index and do not eliminate shares that are held by promoters/controlling interest.

- ii. **Free-Float Market Capitalization Methodology:** It takes into account only those shares that are freely available for trading in normal course. It excludes those shares that are held by promoters, group companies, lock-in shares etc.
- iii. **Price-Weighted Index:** A stock index in which each stock influences the index in proportion to its price per share. The value of the index is generated by adding the prices of each of the stocks in the index and dividing them by the total number of stocks. Stocks with a higher price will be given more weight and, therefore, will have a greater influence over the performance of the index. Dow Jones Industrial Average, one of the oldest indexes launched in 1896 is one example that is calculated on this methodology.
- iv. **Equal Weighted Index:** An equally-weighted index makes no distinction between large and small companies, both of which are given equal weighting. The good performance of large-cap stocks is negated one-for-one by poor performance of smaller-cap stocks in this index.

3.2. SENSEX - THE BAROMETER OF INDIAN CAPITAL MARKET

Till the decade of eighties, there was no scale to measure the ups and downs in the Indian stock market. The Bombay Stock Exchange Ltd. (BSE) in 1986 came out with a stock index 'SENSEX' that subsequently became the barometer of the Indian stock market.

SENSEX is not only scientifically designed but also based on globally accepted construction and review methodology. First compiled in 1986, SENSEX is a basket of 30 constituent stocks representing a sample of large, liquid and representative companies. The base year of SENSEX is 1978-79 and the base value is 100. The index is widely reported in both domestic and international markets through print as well as electronic media.

The SENSEX was initially calculated based on the "Full Market Capitalization" methodology but was shifted to the free-float methodology with effect from September 1, 2003. The "Free-float Market Capitalization" methodology of index construction is regarded as an industry best practice globally. All major index providers like MSCI, FTSE, STOXX, S&P and Dow Jones use the Free-float methodology.

Due to its wide acceptance amongst the Indian investors; SENSEX is regarded to be the pulse of the Indian stock market. As the oldest index in the country, it provides the

time series data over a fairly long period of time (From 1979 onwards). Small wonder, the SENSEX has over the years become one of the most prominent brands in the country. Table 4.1 gives the specification of the Sensex.

Table 4.1: Index Specification:

| | |
|-----------------------|--|
| Base Year | 1978-79 |
| Base Index Value | 100 |
| Date of Launch | January 1, 1986 |
| Method of calculation | Launched on full market capitalization method and effective September 1, 2003, |
| Number of scrips | 30 |
| Index calculation | Real Time |

3.3. OBJECTIVES OF THE SENSEX®

The SENSEX® is the benchmark index with wide acceptance among individual investors, institutional investors, foreign investors and fund managers. The objectives of the index are:

i. To measure Market Movements

Given its long history and its wide acceptance, no other index matches the SENSEX® in reflecting market movements and sentiments. SENSEX® is widely used to describe the mood in the Indian Stock markets.

ii. Benchmark for Funds Performance

The inclusion of Blue chip companies and the wide and balanced industry representation in the SENSEX® makes it the ideal benchmark for fund managers to compare the performance of their funds.

iii. For Index Based Derivatives Products

Institutional investors, money managers and small investors all refer to the SENSEX® for their specific purposes. The SENSEX® is in effect the proxy for the Indian stock markets. Since SENSEX® comprises of leading companies in all the significant sectors in the economy, we believe that it will be the most liquid contract in the Indian market and will garner a pre-dominant market share.

3.4. SENSEX CALCULATION METHODOLOGY

SENSEX is calculated using the "Free-float Market Capitalization" methodology. As per this methodology, the level of index at any point of time reflects the Free-float market

value of 30 component stocks relative to a base period. The market capitalization of a company is determined by multiplying the price of its stock by the number of shares issued by the company. This market capitalization is further multiplied by the free-float factor to determine the free-float market capitalization.

The base period of SENSEX is 1978-79 and the base value is 100 index points. This is often indicated by the notation 1978-79=100. The calculation of SENSEX involves dividing the Free-float market capitalization of 30 companies in the Index by a number called the Index Divisor. The Divisor is the only link to the original base period value of the SENSEX. It keeps the Index comparable overtime and is the adjustment point for all Index adjustments arising out of corporate actions, replacement of scrips etc. During market hours, prices of the index scrips, at which latest trades are executed, are used by the trading system to calculate SENSEX every 15 seconds and disseminated in real time.

3.5. UNDERSTANDING FREE-FLOAT METHODOLOGY:

Free-float Methodology refers to an index construction methodology that takes into consideration only the free-float market capitalization of a company for the purpose of index calculation and assigning weight to stocks in Index. Free-float market capitalization is defined as that proportion of total shares issued by the company that are readily available for trading in the market. It generally excludes promoters' holding, government holding, strategic holding and other locked-in shares that will not come to the market for trading in the normal course. In other words, the market capitalization of each company in a Free-float index is reduced to the extent of its readily available shares in the market.

In India, BSE pioneered the concept of free-float by launching BSE *TECK* in July 2001 and BANKEX in June 2003. While BSE *TECK* Index is a TMT benchmark, BANKEX is positioned as a benchmark for the banking sector stocks. SENSEX became the third index in India to be based on the globally accepted Free-float Methodology.

3.5.1. Major advantages of Free-float Methodology:

- A Free-float index reflects the market trends more rationally as it takes into consideration only those shares that are available for trading in the market.
- Free-float Methodology makes the index more broad-based by reducing the concentration of top few companies in Index.
- A Free-float index aids both active and passive investing styles. It aids active managers by enabling them to benchmark their fund returns vis-à-vis an investable index. This enables an apple-to-apple comparison thereby facilitating better evaluation of performance of active managers. Being a

perfectly replicable portfolio of stocks, a Free-float adjusted index is best suited for the passive managers as it enables them to track the index with the least tracking error.

- Free-float methodology improves index flexibility in terms of including any stock from the universe of listed stocks. This improves market coverage and sector coverage of the index. For example, under a full-market capitalization methodology, companies with large market capitalization and low free-float cannot generally be included in the Index because they tend to distort the index by having an undue influence on the index movement. However, under the free-float Methodology, since only the free-float market capitalization of each company is considered for index calculation, it becomes possible to include such closely held companies in the index while at the same time preventing their undue influence on the index movement.
- Globally, the free-float Methodology of index construction is considered to be an industry best practice and all major index providers like MSCI, FTSE, S&P and STOXX have adopted the same. MSCI, a leading global index provider, shifted all its indices to the Free-float Methodology in 2002. The MSCI India Standard Index, which is followed by Foreign Institutional Investors (FIIs) to track Indian equities, is also based on the Free-float Methodology. NASDAQ-100, the underlying index to the famous Exchange Traded Fund (ETF) - QQQ is based on the Free-float Methodology.

3.5.2. Definition of Free-float:

Share holdings held by investors that would not, in the normal course come into the open market for trading are treated as 'Controlling/ Strategic Holdings' and hence not included in free-float. In specific, the following categories of holding are generally excluded from the definition of Free-float:

- Holdings by founders/directors/acquirers which has control element
- Holdings by persons/ bodies with "Controlling Interest"
- Government holding as promoter/acquirer
- Holdings through the FDI Route
- Strategic stakes by private corporate bodies/ individuals
- Equity held by associate/group companies (cross-holdings)
- Equity held by Employee Welfare Trusts
- Locked-in shares and shares which would not be sold in the open market in normal course.

The remaining shareholders would fall under the Free-float category.

3.5.3. Determining Free-float factors of companies:

BSE has designed a Free-float format, which is filled and submitted by all index companies on a quarterly basis with the Exchange. (Format available on www.bseindia.com) The Exchange determines the Free-float factor for each company based on the detailed information submitted by the companies in the prescribed format. Free-float factor is a multiple with which the total market capitalization of a company is adjusted to arrive at the Free-float market capitalization. Once the Free-float of a company is determined, it is rounded-off to the higher multiple of 5 and each company is categorized into one of the 20 bands given below. A Free-float factor of say 0.55 means that only 55% of the market capitalization of the company will be considered for index calculation.

Table 4.2: Free-float Bands:

| % Free-Float | Free-Float | % Free-Float | Free-Float Factor |
|---------------------|-------------------|---------------------|--------------------------|
| >0 - 5% | 0.05 | >50 - 55% | 0.55 |
| >5-10% | 0.10 | >55 - 60% | 0.60 |
| >10- 15% | 0.15 | >60 - 65% | 0.65 |
| >15-20% | 0.20 | >65 - 70% | 0.70 |
| >20 - 25% | 0.25 | >70 - 75% | 0.75 |
| % Free-Float | Free-Float | % Free-Float | Free-Float Factor |
| >25 - 30% | 0.30 | >75 - 80% | 0.80 |
| >30 - 35% | 0.35 | >80 - 85% | 0.85 |
| >35 - 40% | 0.40 | >85 - 90% | 0.90 |
| >40 - 45% | 0.45 | >90 - 95% | 0.95 |
| >45 - 50% | 0.50 | >95-100% | 1.00 |

Index Calculation and Maintenance:

3.5.4. Formula for calculation of index is

All BSE indices (except BSE PSU index) are calculated using following formula:

Free-float market capitalization of index constituents/ Base Market Capitalization * Base Index Value

For calculation of BSE PSU index, full market capitalization of index constituents is considered instead of free-float market capitalization, as this is the only index at BSE calculated on full-market capitalization methodology. Dollex-30, Dollex-100 and Dollex-200 are dollar-linked version of SENSEX, BSE-100 and BSE-200 index.

3.5.5. Index Closure Algorithm

The closing index value on any trading day is computed taking the weighted average of

all the trades of index constituents in the last 30 minutes of trading session. If an index constituent has not traded in the last 30 minutes, the last traded price is taken for computation of the index closure. If an index constituent has not traded at all in a day, then its last day's closing price is taken for computation of index closure. The use of index closure algorithm prevents any intentional manipulation of the closing index value.

3.5.6. Maintenance of BSE Indices

One of the important aspects of maintaining continuity with the past is to update the base year average. The base year value adjustment ensures that replacement of stocks in Index, additional issue of capital and other corporate announcements like 'rights issue' etc. do not destroy the historical value of the index. The beauty of maintenance lies in the fact that adjustments for corporate actions in the Index should not per se affect the index values.

The *Department of BSE Indices* of the exchange does the day-to-day maintenance of the index within the broad index policy framework set by the BSE Index Committee. The *Department* ensures that all BSE Indices maintain their benchmark properties by striking a delicate balance between frequent replacements in index and maintaining its historical continuity. The Index Committee of the Exchange comprises of experts on capital markets from all major market segments. They include Academicians, Fund managers from leading Mutual Funds, Finance Journalists, Market Participants, Independent Governing Board members, and Exchange administration.

On - Line Computation of the Index:

During market hours, prices of the index scrips, at which trades are executed, are automatically used by the trading computer to calculate the BSE Indices on real time basis and are continuously updated on all trading workstations connected to the BSE trading computer in real time.

Adjustment for Bonus, Rights and Newly issued Capital:

The arithmetic calculation involved in calculating index is simple, but problem arises when one of the component stocks pays a bonus or issues rights shares. If no adjustments were made, a discontinuity would arise between the current value of the index and its previous value despite the non-occurrence of any economic activity of substance. The Department adjusts the base value, which is used to alter market capitalization of the component stocks to arrive at the index value.

The *Index Cell* of the Exchange keeps a close watch on the events that might affect the

index on a regular basis and carries out daily maintenance of all BSE Indices.

Adjustments for Rights Issues:

When a company, included in the compilation of the index, issues right shares, the free-float market capitalization of that company is increased by the number of additional shares issued based on the theoretical (ex-right) price. An offsetting or proportionate adjustment is then made to the Base Market Capitalization.

Adjustments for Bonus Issue:

When a company, included in the compilation of the index, issues bonus shares, the market capitalization of that company does not undergo any change. Therefore, there is no change in the Base Market Capitalization; only the 'number of shares' in the formula is updated.

Other Issues:

Base Market Capitalization Adjustment is required when new shares are issued by way of conversion of debentures, mergers, spin-offs etc. or when equity is reduced by way of buy-back of shares, corporate restructuring etc.

Base Market Capitalization Adjustment:

The formula for adjusting the Base Market Capitalization is as follows:

New Base Market Capitalization = Old Base Mkt. Cap. x (New Mkt. Cap. / Old Mkt. Cap.)

To illustrate, suppose a company issues additional shares, which increases the market capitalization of the shares of that company by say, Rs.100 crore. The existing Base Market Capitalization (Old Base Market Capitalization), say, is Rs.2450 crore and the aggregate market capitalization of all the shares included in the index before this issue is made is, say Rs.4781 crore. The "New Base Market Capitalization" will then be:

$$2450 \times (4781+1000)/4781 = 2501.24$$

This figure of 2501.24 will be used as the Base Market Capitalization for calculating the index number from then onwards till the next base change becomes necessary. In case, the index is calculated on a free-float methodology, free-float market capitalization of scrip before and after making the shares adjustment shall be considered.

In case, there is any change in equity of a company or replacement of scrip in the index, there shall have no impact on the index level on the date of such changes as the adjustment in base market capitalization ensures continuity in the index calculation on the effective date.

3.6. SENSEX - SCRIP SELECTION CRITERIA:

The Surveillance dept. provides recommendation based on investigation report for selection of scrips in index. The general guidelines for selection of constituents in SENSEX are as follows:

- a) **Listing History:** The scrip should have a listing history of at least 3 months at BSE. Minimum requirement of 3 months is reduced to one month, if full market capitalization of a newly listed company ranks among top 10 in the list of BSE universe. In case, a company is listed on account of merger/ demerger/ amalgamation, minimum listing history would not be required.
- b) **Trading Frequency:** The scrip should have been traded on each and every trading day in the last three months. Exceptions can be made for extreme reasons like scrip suspension etc.
- c) **Final Rank:** The scrip should figure in the top 100 companies listed by final rank. The final rank is arrived at by assigning 75% weightage to the rank on the basis of three-month average full market capitalization and 25% weightage to the liquidity rank based on three-month average daily turnover & three-month average impact cost.
- d) **Market Capitalization Weightage:** The weightage of each scrip in SENSEX based on three- month average free-float market capitalization should be at least 0.5% of the Index.
- e) **Industry/Sector Representation:** Scrip selection would generally take into account a balanced representation of the listed companies in the universe of BSE.
- f) **Track Record:** In the opinion of the Index Committee, the company should have an acceptable track record.

3.7. THE BETA OF SENSEX® SCRIPS

Beta measures the sensitivity of a scrips Price movement relative to movement in the SENSEX®. Statistically Beta is defined as:
$$\text{Beta} = \frac{\text{Covariance (SENSEX® , Stock)}}{\text{Variance (SENSEX®)}}$$
 Beta is also calculated by regressing stock returns with the index returns. The regression coefficient thus calculated is the Beta value.

Note: Covariance and variance are calculated from the Daily Returns data of the SENSEX® and SENSEX® scrips

3.8. INDEX REVIEW FREQUENCY:

The Index Committee meets every quarter to discuss index related issues. In case of a revision in the Index constituents, the announcement of the incoming and outgoing scrips is made six weeks in advance of the actual implementation of the revision of the Index.

3.9. VARIOUS INDICES AT BSE

In addition to SENSEX, the Exchange calculates broad indices such as, BSE 100, BSE 200, BSE 500, BSE Mid Cap and Small Cap and BSE PSU.

3.9.1. BSE-100 Index:

Introduction

A broad-based index, the BSE-100 was formerly known as the BSE National index. This Index has 1983-84 as the base year and was launched in 1989. In line with the shift of the BSE Indices to the globally accepted free-float methodology, BSE-100 was shifted to Free-Float methodology effective from April 5, 2004. The method of computation of Free-Float index and determination of free-float factors is similar to the methodology for SENSEX.

Table 3.3 Index Specification:

| | |
|-----------------------|--|
| Base Year | 1983-84 |
| Base Index Value | 100 |
| Date of Launch | January 03, 1989 |
| Method of calculation | Launched on full market capitalization method and effective April 05, 2004, calculation method |
| Number of scrips | 100 |
| Index calculation | Real Time |

Base Year

The financial year 1983-84 has been chosen as the base year. The price stability during that year and proximity to the index series were the main consideration for choice of 1983-84 as the base year. The base value was fixed at 100 points.

3.9.2. BSE-200 Index: Background

Over the years, the number of companies listed on BSE continued to register a phenomenal increase; from 992 in to over 3,200 companies by March 1994, with combined market capitalization rising from Rs.5,421 crore to Rs. 3,98,432 crore as on 31st March, 1994.

Though SENSEX (1978-79=100) was serving the purpose of quantifying the price movements as also reflecting the sensitivity of the market in an effective manner, the rapid

growth of the market necessitated compilation of a new broad-based index series reflecting the market trends in a more effective manner and providing a better representation of the increased equity stocks, market capitalization as also to the new industry groups. As such, BSE launched on 27th May 1994, two new index series-BSE-200 and Dollex-200.

The equity shares of 200 selected companies from the specified and non-specified lists of BSE were considered for inclusion in the sample for 'BSE-200'. The selection of companies was primarily been done on the basis of current market capitalization of the listed scrips. Moreover, the market activity of the companies as reflected by the volumes of turnover and certain fundamental factors were considered for the final selection of the 200 companies.

Table 4.4 Index Specification:

| | |
|-----------------------|--|
| Base Year | 1989-90 |
| Base Index Value | 100 |
| Date of Launch | May 27, 1994 |
| Method of calculation | Launched on full market capitalization method and effective April 05, 2004, calculation method |
| Number of scrips | 200 |
| Index calculation | Real Time |

Choice of Base Year

The financial year 1989-90 was chosen as the base year because of the price stability exhibited during that year and due to its proximity to the current period.

3.9.3. BSE-500 Index:

Bombay Stock Exchange Limited constructed a new index, christened BSE-500, consisting of 500 scrips w.e.f. August 9, 1999. The changing pattern of the economy and that of the market were kept in mind while constructing this index.

BSE-500 index represents nearly 93% of the total market capitalization on BSE. BSE-500 covers all 20 major industries of the economy. In line with other BSE indices, effective August 16, 2005 calculation methodology was shifted to the free-float methodology.

Table 4.5 Index Specification

| | |
|------------------|--------------------|
| Base Year | 1st February, 1999 |
| Base Index Value | 1000 |

| | |
|-----------------------|--|
| Date of Launch | 9th August, 1999 |
| Method of calculation | Launched on full market capitalization method and effective April 05, 2004, calculation method |
| Number of scrips | 500 |
| Index calculation | Real Time |

Selection of the Base Year and Base Index Value:

The base date was fixed after a detailed analysis of the relative volatility of BSE-200, the index closest to BSE-500, over the last 8 years. The coefficient of variation of BSE-200 for 1998-99 was one of the lowest in this period. Hence, 1998-99 was chosen as the base year, and within this, February 1, 1999 was selected as the base date for its proximity to the current period. The base value was fixed at 1000 points in order to keep the index comparable with other similar indices

Table number 4.6 gives details of the each of the indices with respect to specifications such as base year, base index value, date of launch, method of calculation, number of scrips (stocks) underlying each index and frequency of calculation.:

Table 4.6 Specifications of Various Indices

| Specification | BSE-100 | BSE-200 | BSE-500 | BSE Mid- and BSE Small-Cap | BSE PSU |
|-----------------------|---|--|---|--|---|
| Base Year | 1983-84 | 1989-90 | Feb. 1, 1999 | 2002-2003 | February 1, 1999 |
| Base Index Value | 100 | 100 | 1000 | 1000 | 1000 |
| Date of Launch | Jan. 3, 1989 | May 27, 1994 | Aug. 9, 1999 | April 11, 2005 | June 4, 2001 |
| Method of calculation | Launched on full market capitalization method and effective April 5, 2004, calculation method shifted to free-float market capitalization | Launched on full market capitalization method and effective Aug. 16, 2005 calculation method shifted to free-float market capitalization | Launched on full market capitalization method and effective Aug. 16, calculation method to free-float market capitalization | Free-float market capitalization methodology | Full market capitalization methodology |
| Number of scrips | 100 | 200 | 500 | Variable to represent and 5% capitalization coverage | The index is a sub-set of BSE-500 index. All PSU stocks BSE-500 index are included in the index and |

| | | | | | |
|-----------------------------------|-----------|-----------|-----------|-----------|---------------------------|
| | | | | | number of are variable |
| Index calculation frequency | Real Time |

3.10. Sectoral Indices at BSE:

Scripts classified under information technology, media and telecom sectors that are present constituents of BSE-500 index form the eligible universe.

3.10.1. BSE TECK Index:

Introduction

The decade of 1990s saw the emergence of the TMT sector as a major force in the Indian economy. The remarkable growth of this sector was reflected in the financial markets. The investment interest in technology stocks continues unabated.

Simultaneously, BSE also calculates various sectoral indices "Sector Series (90/FF)" as detailed below. All these indices are calculated and disseminated on BOLT, BSE's trading terminal on a real time basis. "90/FF" implies that the index covers 90% of the sectoral market capitalization and is based on the Free-Float methodology.

Number of scrips in each of the sectoral indices at BSE is variable as they aims to represent minimum of 90% market capitalization from the universe of BSE-500 index. Similar to other BSE indices, sectoral indices at BSE are also calculated and disseminated on Real Time basis.

Recognizing the growing importance of the TMT sector, BSE TECK index was launched in 2001.

Table 4.7 Index Specification:

| | |
|-----------------------|---|
| Base Year | April 02, 2001 |
| Base Index Value | 1000 |
| Date of Launch | July 11, 2001 |
| Method of calculation | Free-float market capitalization |
| Number of scrips | Variable as it aims to represent minimum 90% market capitalization from the |
| Index calculation | Real Time |

3.10.2. BSE PSU Index:

Bombay Stock Exchange Limited launched "BSE PSU Index" on 4 June 2001. This index consists of major Public Sector Undertakings listed on BSE. The BSE PSU Index

is displayed on-line on the BOLT trading terminals nationwide.

Objective:

- a. An Index to track the performance of listed equity of PSU companies
- b. A suitable benchmark for the Central Government to monitor its wealth on the bourses.

Table 4.8 Index Specification:

| | |
|-----------------------|-----------------------------------|
| Base Year | February 01, 1999 |
| Base Index Value | 1000 |
| Date of Launch | June 04, 2001 |
| Method of calculation | Full market capitalization method |
| Number of scrips | All PSU stocks in BSE-500 index |
| Index calculation | Real Time |

The Base Date for the BSE PSU Index is 1st February 1999, the date when the BSE-500 was launched. Being a subset of BSE-500, the BSE PSU Index ensures a reasonable history of how the Central Government wealth fluctuated on the bourses. The Base Value for the BSE PSU Index has been set at 1000 to ensure adequacy in terms of daily index movement.

3.10.3. BSE Mid-Cap and BSE Small-Cap Index

BSE introduced the new index series called 'BSE Mid-Cap' index and 'BSE Small-Cap' index to track the performance of the companies with relatively small market capitalization that would exclusively represent the mid and small cap companies listed on the stock exchange.

Table 4.9 Salient feature of these indices are:

| | |
|-----------------------|---|
| Base Year | 2002-2003 |
| Base Index Value | 1000 |
| Date of Launch | April 11, 2005 |
| Method of calculation | Free-float market capitalization methodology |
| Number of scrips | Variable to represent 15% and 5% market capitalization coverage |
| Index calculation | Real Time |

3.10.4. BSE IPO Index

Introduction

Robust growth of the Indian economy, 6.7% in 2008-09, and the expectation of higher growth in the future are expected to boost the primary market. For this and other

reasons, it was an appropriate time to introduce to the market an indicator that will track primary market conditions in the Indian capital market.

BSE introduced the new index series - BSE IPO index to track the current primary market conditions in the Indian capital market and measure the growth in investor's wealth within a period of two years after listing of a company subsequent to successful completion of initial public offering (IPO).

BSE on August 24, 2009 announced the launch of BSE IPO index to track the value of companies for two years after listing subsequent to successful completion of their initial public offering (IPO).

BSE continued to introduce index innovations with the launch of the IPO index, by introducing ceiling (capping) on weightings of index constituents. Market capitalization weightings of index constituents is limited to 20%. If a constituent's market capitalization results in a higher weighting, the company's weight is suitably adjusted to ensure that all constituents are restricted to 20% in the index. However, between any rebalancing, weightage of any index constituent can exceed 20%.

Table 4.10 Index Specification:

| | |
|-----------------------|----------------------------------|
| Base Year | May 3, 2004 |
| Base Index Value | 1000 |
| Date of Launch | August 24, 2009 |
| Method of calculation | Free Float market capitalization |
| Index calculation | Real Time |

Criteria governing BSE IPO index are as follows:

- a) Company seeking listing on the Exchange after completion of IPO shall be considered eligible for inclusion in the index. Follow-on public issue shall be considered ineligible for inclusion in the index.
- b) A scrip must have the minimum free-float market capitalization of Rs. 100 crore on first day of listing
- c) A scrip will be included in the index on third day of its listing subject to fulfillment of minimum free-float market capitalization criteria stated above.
- d) A scrip will be excluded from the index on second Monday of the month after completion of two years of listing.
- e) At all time minimum of 10 scrips shall be maintained in the index. In case, there are less than 10 companies on account of possible exclusion after two years, the exclusion of such company shall be delayed till such time new

inclusion is made in the index.

- f) Maximum weight of any scrip shall be capped at 20%. The constituent weightage shall be reviewed at the time of inclusion/ exclusion of scrip and on monthly rebalancing. However, between any rebalancing, weightage of any index constituent can exceed 20%

Table 4.11 BSE Sectoral Indices Series:

| Index | Base Period | Base Index | Date of | Method of calculation |
|-----------------------|-------------|------------|-------------|--|
| BSE Auto | 01-Feb- | 1000 | 23-Aug-2004 | Free-float market |
| BSE BANKEX | 01-Jan- | 1000 | 23-Jun-2003 | Free-float market |
| BSE Capital Goods | 01-Feb-1999 | 1000 | 09-Aug-1999 | Launched on full market capitalization method and effective August 16, 2005, calculation method shifted to |
| BSE Consumer Durables | 01-Feb-1999 | 1000 | 09-Aug-1999 | Launched on full market capitalization method and effective August 16, 2005, calculation method shifted to |
| BSE FMCG | 01-Feb-1999 | 1000 | 09-Aug-1999 | Launched on full market capitalization method and effective August 16, 2005, calculation |
| BSE Healthcare | 01-Feb-1999 | 1000 | 09-Aug-1999 | Launched on full market capitalization method and effective August 16, 2005, calculation |
| BSE IT | 01-Feb-1999 | 1000 | 09-Aug-1999 | Launched on full market capitalization method and effective August 16, 2005, calculation |
| BSE Metal | 01-Feb- | 1000 | 23-Aug-2004 | Free-float market |
| BSE Oil & | 01-Feb- | 1000 | 23-Aug-2004 | Free-float market |
| BSE Realty | 2005 | 1000 | 09-Jul-2007 | Free-float market |
| BSE <i>TECK</i> | 02-Apr-2001 | 1000 | 11-Jul-2001 | Free-float market capitalization (index comprising IT, Media & |
| BSE Power | 03-Jan-2005 | 1000 | 09-Nov-2007 | Free-float market capitalization |

3.11. DOLLEX SERIES OF BSE INDICES

All BSE indices reflects the growth in market value of constituent stocks over the base period in rupee terms, the yardstick was desired to measure the growth values in US dollar terms. Such an index would reflect, in one value, the changes in both the stock prices and the foreign exchange variation. This is facilitated by the introduction of a dollar-linked index in which the formula for calculation of index is suitably modified to

express the current and base market values in dollar terms. This dollar-linked index is useful to overseas investors, as it helps them measure their 'real returns' after providing for exchange rate fluctuations. Eligible overseas investors can place order on a real time basis rather than placing it over the telephone. An investor abroad permitted to invest in India can be a NRI, OCB, FII, etc.

Earlier, BSE calculated dollar-linked version of SENSEX and BSE-200. Dollex-30 was launched on July 25, 2001 whereas Dollex-200 on May 27, 1994. BSE announced introduction of Dollex-100, a dollar linked version of BSE-100 index effective from May 22, 2006 and from this date onwards Dollex-30, Dollex-100 and Dollex-200 are calculated and displayed through BSE On-line trading terminals (BOLT) by taking into account real-time Re./US\$ Exchange rate. The formula for calculating the index is:

$$\text{Dollex} = \text{Index Value (In local currency)} * (\text{Base Rupee-US\$ rate} / \text{Current rupee-US\$ rate})$$

Dollex-100

BSE also calculates a dollar-linked version of BSE -100 and historical values of this index are available since its inception.

Dollex-200

BSE also calculates a dollar-linked version of BSE-200 index and historical values of this index are available since its inception

Chapter 4

Valuation of Securities: Fundamental Concepts

4.1. Time Value of Money

Time value of money helps an investor learn how to invest better and analyze the returns. It is a key ingredient in all financial decisions and is the basis of investment and portfolio management. An important requirement is that one must understand everything about interest rates.

There are four major aspects of time value of money opportunity. These are

- (a) Future value of a sum invested today
- (b) Present value of a sum received after a time period
- (c) Future Value of annuity, and
- (d) Present Value of an annuity

(a) Future Value of a Sum Invested Today:

Simple interest on a sum can be calculated as

$$SI = PV \times i \times n \text{ ----- (1)}$$

Here SI= Simple Interest

PV= Present Value

i = Interest Rate

n = Time Period.

Illustration

(i) What is the simple interest on Rs 100 at 10% pa for 6 months?

Ans: $S I = 100 \times 0.10 \times 6/12 = Rs5.$

(ii) If Shyam bought a house and borrowed Rs30, 000 at a 10% annual interest rate, what would be his first month's interest payment?

Ans. $S I = 30,000 \times 0.10 \times 1/12 = 250$

When Simple interest is added to the present value we get a new sum. Interest calculated on such a sum is also called compound interest. Very often the term Future Value is used for a sum received when compounding is done over several periods.

Therefore Future Value is defined as:

$$FV = PV (1+i)^n \text{ -----(2)}$$

The term $(1+i)^n$ is defined as Future Value Interest Factor for an interest rate *I* and

periods n.

$$FV_n = PV (FVIF_{i,n}) \text{-----}(3)$$

Illustration:

- (i) What will be the FV of Rs1000 deposited by Shyam in a savings account compounded annually at 6% for 4 years?

Ans. $FV=(1000) \times (1 + 0.06)^4 = 1262$

The value of FVIF for 6% and 4 years is 1.262. Thus we can also say:

$$FV_4= 1000 \times 1.262=1262$$

- (b) Present Value of a sum received after a given period. The Present Value is a function of Future value, interest rate and time period n.

As $FV_n = PV (FVIF_{i,n})$

There fore,

$$PV = FV_n \div (FVIF_{i,n}) \text{-----}(4)$$

The relationship is also known as discounting which is opposite to compounding as discussed above.

Illustration:

- (i) What is the PV of Rs100 received one year from now with 12 percent interest p.a. compounded monthly?

Solution

$$\begin{aligned} PV &= Rs100 \times 1/(1 + .12/12)^{(12 \times 1)} \\ &= Rs100 \times 1/(1.126825) \\ &= Rs100 \times (.88744923) \\ &= Rs 88.74 \end{aligned}$$

- (c) Future Value of annuity

An annuity is defined as a constant sum of money received or paid over a period of time. Payments on recurring deposits of banks, payment of insurance premium, and payment of Equated Monthly Installments of Loans (EMI), all are examples of annuities. When the amount is paid or received at the end of a period, it is called ordinary annuity. If the payment occurs in the beginning of the period it is called annuity due.

The future value of an ordinary annuity with 'n' periods and an interest rate of 'i' can be found with the following formula:

$$=PMT \frac{(1+i)^n - 1}{i}$$

$$FVAN=PMT (FVIFA_{i,n}) \text{-----(5)}$$

Where PMT stands for ordinary annuity and $FVIFA_{i,n}$ stands for future value interest factor of an annuity.

Illustration:

- (i) What's the FV of a 3-year ordinary annuity of Rs100 at 10%?

$$=100 \frac{(1+0.10)^3 - 1}{0.10} = 331.$$

The FV of annuity due can be found after calculating ordinary annuity as:

$$= (\text{FV of ordinary annuity}) (1+i) \text{-----6}$$

Illustration:

- (ii) What's the FV of a 3-year annuity due of Rs100 at 10%?

$$=100 \frac{(1+0.10)^3 - 1}{0.10} = 331.$$

$$= (331.00) (1+ 0.10) = 364.1$$

- (iii) The Sinking Fund Problem

Future Value of an Annuity Interest Factor (FVIF) can be used to find the annuity amount that must be invested each year to produce a future value. This is called a Sinking Fund Problem.

Infosys Ltd wants set aside an equal, annual, end of year amount in a 'Sinking Fund Account' earning 10% pa over the next 5 years. The firm wants to have Rs5 million in the account at the end of five years so as to retire a debt of same amt. How much should be deposited each year?

Solution

$$FVAN_n = PMT (FVIFA_{i, n})$$

$$5,000,000 = PMT (6.105)$$

$$PMT = 819,000.81$$

- (d) Present Value of an Annuity

The present value of an ordinary annuity with 'n' periods and an interest rate of 'i' can be found with the following formula:

$$=PMT \frac{1 - \frac{1}{(1+i)^n}}{i}$$

$$=PMT (PVIFA_{i,n}) \text{ -----(7)}$$

Where PMT stands for ordinary annuity and $PVIFA_{i,n}$ stands for present value interest factor of an annuity.

Illustration

- (i) What's the PV of a 3-year ordinary annuity of Rs100 at 10%?

$$=100 \frac{1 - \frac{1}{(1+0.10)^3}}{0.10} = 248.69$$

The PV of annuity due for the above ordinary annuity can be calculated as

$$= (\text{PV of ordinary annuity}) (1+i) \text{ ----- (8)}$$

Illustration:

- (ii) What's the PV of a 3-year annuity due of Rs100 at 10%?

$$= (248.69) (1+ 0.10) = 273.56$$

(iii) Amortization: Calculating Installments of a Housing Loan

You have borrowed Rs 10,000 from SBI. The loan is for a period of 5 years at an interest rate of 12%.Your payments should be made at the end of year and should include both Interest and Principal on the outstanding balance. What should be the value of each installment?

$$PVAN_0 = PMT (PVIFA_{i, n})$$

$$10,000=PMT (3.605)$$

$$PMT=Rs 2773.92.$$

4.2. Calculation of Returns

Returns on investment can come from one of two sources or both:

- (a) Capital Gain – This is the increase (or decrease) in the market value of the security
- (b) Income – This is the periodic cash flows that an investment may pay (e.g., cash dividends on stock, or interest payments on bonds)

Note that total return on any investment is the sum of your capital gains and income. Investors look at returns in various ways, but the most basic (not necessarily the best) is the single period total return. Period is defined as any appropriate period of time (year, quarter, month, week, day, etc.)

The most appropriate measure is known as the Holding Period Return (HPR):

Illustration

Shyam purchased 100 shares of Infosys stock for Rs50 per share five years ago. Recently, he sold the stock for Rs100. In addition, the company paid a dividend each year of Rs1.00 per share. What is his HPR?

$$HPR = \frac{100 + 1 + 1 + 1 + 1 + 1}{50} - 1 = \frac{105}{50} - 1 = 1.10 = 110\%$$

4.2.1. Annualizing HPRs

If a calculated HPR is for a non-annual holding period, we generally annualize it to make it comparable to other returns. The general formula is:

$$HPR_{Annualized} = (1 + HPR_{Non-Annual})^m - 1 \quad \text{-----}9$$

Here m is the number of periods per year. Note that m will be > 1 for less than annual periods and < 1 for greater than annual periods

Illustration

- (i) Shyam earned a return of 5% on an investment over a period of three months. There are 4 three-month periods in a year, so what is your annualized HPR?

$$HPR_{Annualized} = (1.05)^4 - 1 = 21.55\%$$

- (ii) Ram earned an HPR of 47% on an investment over a period of 5 years. In this case, what would be his annualized HPR?

$$HPR_{Annualized} = (1.47)^{1/5} - 1 = 8.01\%$$

Note: Use an exponent (m) of $1/5$ because a year is $1/5$ th of a five-year period.

4.2.2. Multi-period Returns

HPR provide an interesting bit of data (Infosys example), but it suffers from some flaws:

- (a) The HPR ignores compounding
- (b) The HPR is usually not comparable to other returns because it isn't an necessarily annualized return

The solution to these problems is to calculate the IRR of the investment

A security investment's IRR is usually referred to as its Holding Period Yield (HPY).

Since the HPY is the same as the IRR, there is no general formula for finding the HPY. Instead, we must use some iterative procedure (or a financial calculator or spreadsheet function)

Illustration

Shyam purchased 100 shares of Infosys stock for Rs50 per share five years ago. Recently, he sold the stock for Rs100. In addition, the company paid a dividend each year of Rs1.00 per share. What is his HPY?

For the Infosys investment, the HPY is 16.421% per year:

$$50 \cong \frac{1}{1+y} + \frac{1}{(1+y)^2} + \frac{1}{(1+y)^3} + \frac{1}{(1+y)^4} + \frac{1+100}{(1+y)^5}$$

$$y = \text{HPY} = 16.421\%$$

Generally, the HPY is superior to the HPR as a measure of return, but it also has problems:

- (a) The HPY assumes that cash flows are reinvested at the same rate as the HPY
- (b) The HPY assumes that the cash flows are equally spaced in time (i.e., every year or every month)
- (c) The HPY makes no provision for stock splits, stock dividends, or partial purchases or sales of holdings

4.2.3. Arithmetic vs. Geometric Mean Returns

Arithmetic Mean is an average value of a set of the values. It indicates the central value of the overall population. It equals to the sum of all the values over (divided by) the number of observations.

Geometric Mean (GM) is theoretically considered to be the best average in measuring returns from securities. The geometric mean, G, of a set on N positive numbers $X_1, X_2, X_3, \dots, X_n$ is the Nth root of the product of the numbers:

When one has to calculate a rate of return over a number of periods, people often use the arithmetic average. However, that is incorrect because it ignores compounding, and therefore tends to overstate the return.

Illustration

Hari purchased shares in Wipro two-years ago. During the first year, the stock doubled, but it fell by 50% in the second year. What is your average annual rate of return?

$$\text{Arithmetic: } R = \frac{100\% + (-50\%)}{2} = 25\%$$

Geometric: $R = \sqrt{(1+1)(1+(-0.50))} - 1 = 0.00\%$

4.2.4. Negative Returns

All of the examples we've seen so far assume that your investment appreciates in value. However, it's very likely that you will lose money occasionally. The formulas that we've seen work just as well for negative returns as for positive returns.

Illustration

Shiv purchased a stock for Rs50 three months ago, and it is now worth Rs40. What is his HPR and annualized HPR? Assume no dividends were paid.

An often overlooked problem with losses is that you must earn a higher percentage return than you lost just to get even. Using our example, you lost 20%. If the stock now rises by 20% you are *not* back to Rs50.

$$40(1.20) = 48 \neq 50$$

To figure the "gain to recover" use the formula (%L is the loss):

$$\%GTR = \frac{1}{1 - \%L} - 1 \quad \text{----- (10)}$$

So, you would need to earn a return of 25% to get back to Rs50:

$$\%GTR = \frac{1}{1 - 0.20} - 1 = 0.25 = 25\%$$

4.3. Measurement of Risk

A risky situation is one which has some probability of loss. The higher is the probability of loss, the greater the risk. If there is no possibility of loss, there is no risk. The riskiness of an investment can be judged by describing the probability distribution of its possible returns. A probability distribution is simply a listing of the probabilities and their associated outcomes. Probability distributions are often presented graphically as in figure 1, 2 and 3.

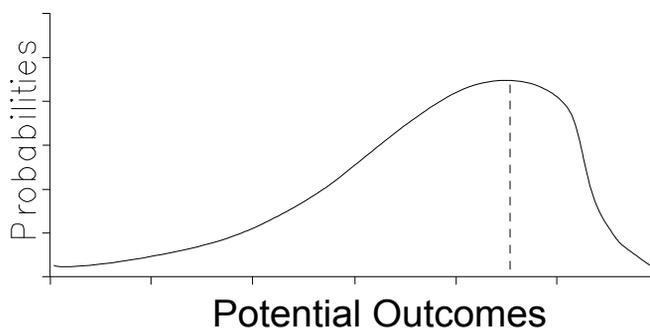


Figure-1

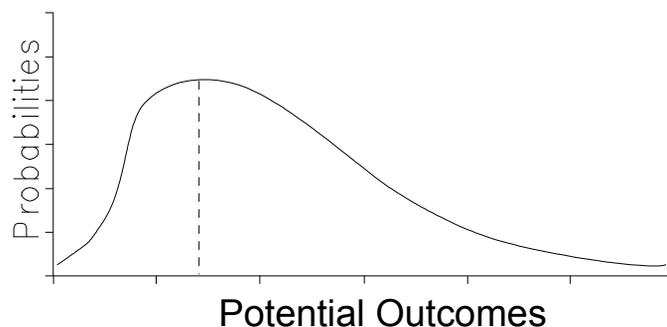


Figure-2

For many reasons, we usually assume that the underlying distribution of returns is normal. The normal distribution is a bell-shaped curve with finite variance and mean.

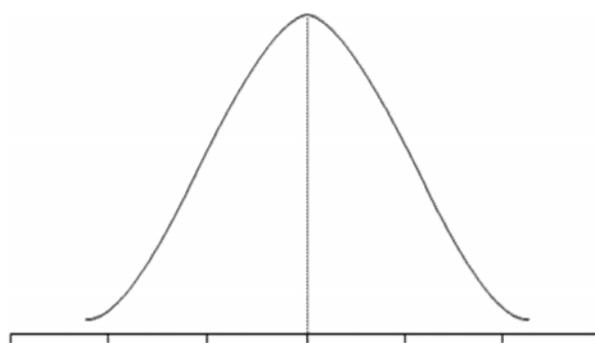


Figure-3

4.3.1. Expected Return, Variance and Standard Deviation

The expected value of a distribution is the most likely outcome. For the normal dist., the expected value is the same as the arithmetic mean.

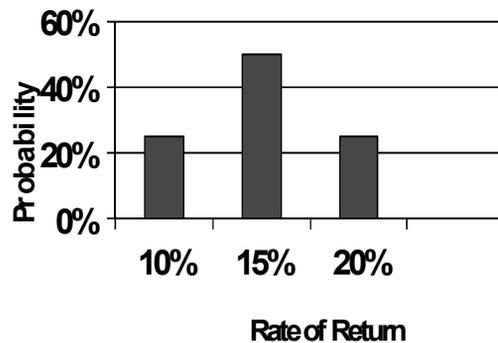
$$E(R) = \sum_{t=1}^N \rho_t R_t \quad \text{----- (11)}$$

All other things being equal, we assume that people prefer higher expected returns at given levels of risk.

Illustration:

Suppose that a particular investment has the following probability distribution:

- (a) 25% chance of 10% return
- (b) 50% chance of 15% return
- (c) 25% chance of 20% return



This investment has an expected return of 15%

The variance and standard deviation describe the dispersion (spread) of the potential outcomes around the expected value. Greater dispersion generally (not always!) means greater uncertainty and therefore higher risk.

$$E(R_i) = 0.25(0.10) + 0.50(0.15) + 0.25(0.20) = 0.15$$

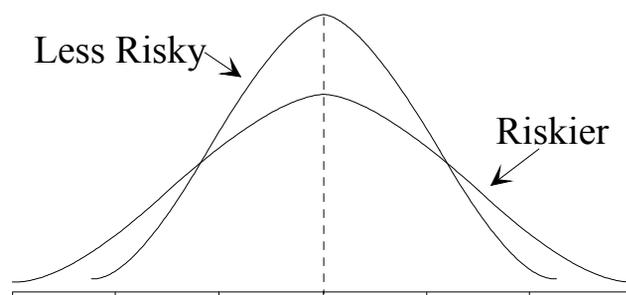


Figure-4

$$\sigma_R^2 = \sum_{i=1}^N \rho_i (R_i - \bar{R})^2 \quad \text{----- (12)}$$

$$\sigma_R = \sqrt{\sigma_R^2} \text{----- (13)}$$

Calculating σ^2 and σ : An Illustration

Suppose that a particular investment has the following probability distribution:

- (a)** 25% chance of 10% return

- (b)** 50% chance of 15% return

- (c)** 25% chance of 20% return

Using the same example as for the expected return as 15% (0.15), we can calculate the variance and standard deviation:

$$\sigma^2 = 0.25(0.10 - 0.15)^2 + 0.50(0.15 - 0.15)^2 + 0.25(0.20 - 0.15)^2 = 0.00125$$

$$\sigma = \sqrt{0.25(0.10 - 0.15)^2 + 0.50(0.15 - 0.15)^2 + 0.25(0.20 - 0.15)^2} = 0.03536$$

The variance and standard deviation suffers from the scale problem.

Scale problem in calculation of risk (variance or standard deviation) as the magnitude of the returns used to calculate the variance impacts the size of the variance possibly giving an incorrect impression of the riskiness of an investment

Illustration:

| Prob | Potential Returns | |
|-------------|--------------------------|------------|
| | ABC | XYZ |
| 10% | -12% | -24% |
| 15% | -5% | -10% |
| 50% | 2% | 4% |
| 15% | 9% | 18% |
| 10% | 16% | 32% |
| E(R) | 2.0% | 4.0% |
| Variance | 0.00539 | 0.02156 |
| Std. Dev. | 7.34% | 14.68% |
| C.V. | 3.6708 | 3.6708 |

4.3.2. The Coefficient of Variation

As shown above although variance and standard deviation of returns is different for two stocks but the Coefficient of Variation is same. The coefficient of variation (CV) provides a scale-free measure of the riskiness of a security. It removes the scale problem by dividing the standard deviation by the expected return. In the previous example, the CV for XYZ and ABC are identical, indicating that they have exactly the same degree of riskiness.

$$CV = \frac{\sigma_R}{R} \text{-----} (14)$$

Standard deviation measures the stand-alone risk of an investment. The larger the standard deviation, the higher the probability that returns will be far below the expected return. Coefficient of variation is an alternative measure of stand-alone risk.

Generally, we don't know the probability distribution of future returns, so we estimate it based on past (historical) data. When using past data, the formulas are the same, but we assign equal (1/n) probabilities to each past observation.

4.3.3. Portfolio Risk and Return

The preceding risk and return measures apply to individual securities. However, when we combine securities into a portfolio some things (particularly risk measures) change in, perhaps, unexpected ways. In this section, we will look at the methods for calculating the expected returns and risk of a portfolio.

(a) Return of a Portfolio

For a portfolio, the expected return calculation is straightforward. It is simply a weighted average of the expected returns of the individual securities:

$$E(R_p) = \sum_{i=1}^N \omega_i E(R_i) \text{-----} 15$$

Where w_i is the proportion (weight) of security i in the portfolio.

Illustration

Suppose that we have three securities in the portfolio. Security 1 has an expected return of 10% and a weight of 25%. Security 2 has an expected return of 15% and a weight of 40%. Security 3 has an expected return of 7% and a weight of 35%. (Note that the weights add up to 100 %.)

The expected return of this portfolio is:

$$E(R_p) = 0.25(0.10) + 0.40(0.15) + 0.35(0.07) = 0.1095 = 10.95\%$$

(b) Risk of a Portfolio

Unlike the expected return, the riskiness (standard deviation) of a portfolio is more complex.

We can't just calculate a weighted average of the standard deviations of the individual securities because that ignores the fact that securities don't always move in perfect synch with each other.

For example, in a strong economy we would expect that stocks of grocery companies would be moderate performers while technology stocks would be great performers. However, in a weak economy, grocery stocks will probably do very well compared to technology stocks. Both are risky, but by owning both we can reduce the overall riskiness of our portfolio.

By combining securities with less than perfect correlation, we can smooth out the portfolio's returns (i.e., reduce portfolio risk). The following chart shows what happens when we combine two risky securities into a portfolio. The line in the middle is the combined portfolio. Note how much less volatile it is than either of the two securities.

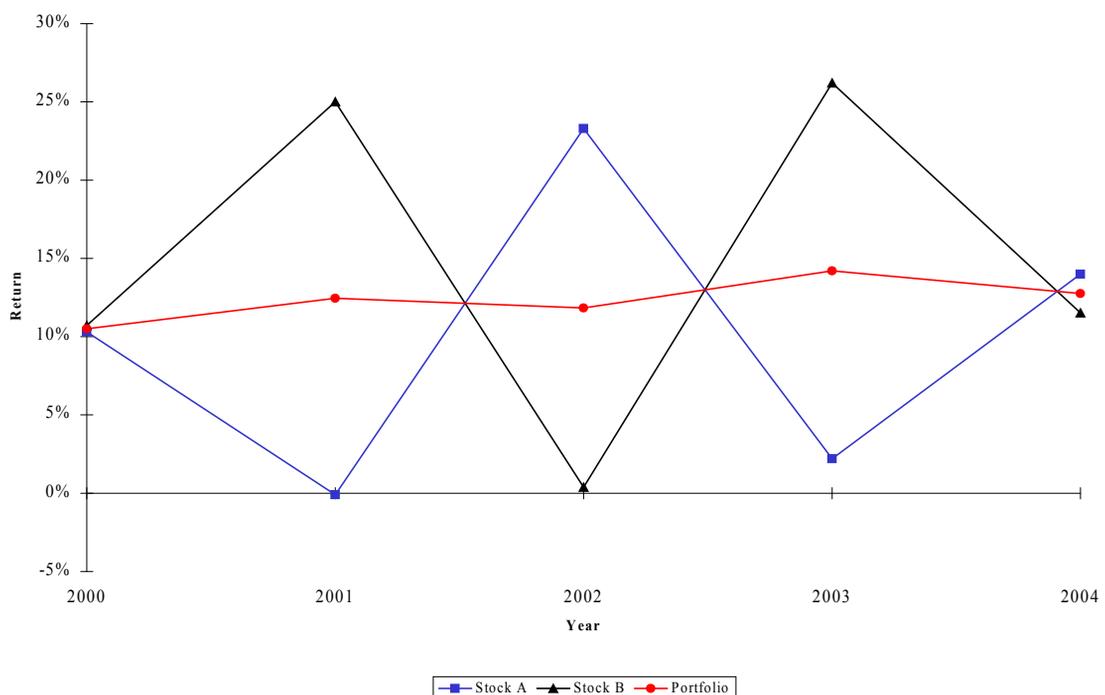


Figure 6

The key to the risk reduction shown on the previous chart is the correlation between the securities. Note how Stock A and Stock B always move in the opposite direction (when A has a good year, B has a not so good year and vice versa). This is called negative correlation and is great for diversification.

Securities that are very highly (positively) correlated would result in little or no risk reduction. So, when constructing a portfolio, we should try to find securities which have a low correlation (i.e., spread your money around different types of securities, different industries, and even different countries).

The correlation coefficient (r_{xy}) describes the degree to which two series tend to move together. It can range from +1.00 (they always move in perfect sync) to -1.00 (they always move in different directions). Note that $r_{xy} = 0$ means that there is no identifiable (linear) relationship.

Our measure of portfolio risk (standard deviation) must take account of the riskiness of each security, the correlation between each pair of securities, and the weight of each security in the portfolio.

For a two-security portfolio, the standard deviation is:

$$\sigma_p = \sqrt{\omega_1^2 \sigma_1^2 + \omega_2^2 \sigma_2^2 + 2r_{1,2} \sigma_1 \sigma_2 \omega_1 \omega_2} \text{-----16}$$

The equation gets longer as we add more securities, so we will concentrate on the two-security equation.

Illustration:

Suppose that we are interested in two securities, but they are both very risky. Security 1 has a standard deviation of 30% and security 2 has a standard deviation of 40%. Further, the correlation between the two is quite low at 20% ($r_{1,2} = 0.20$).

What is the standard deviation of a portfolio of these two securities if we weight them equally (i.e., 50% in each)?

$$\sigma_p = \sqrt{(0.50)^2(0.30)^2 + (0.50)^2(0.40)^2 + 2(0.20)(0.30)(0.40)(0.50)(0.50)} = 0.273$$

Note that the standard deviation of the portfolio is less than the standard deviation of either security. This is what diversification is all about.

4.3.4. Determining the Required Return

The required rate of return for a particular investment depends on several factors, each of which depends on several other factors. The two main factors for any investment are:

- (a) The perceived riskiness of the investment
- (b) The required returns on alternative investments (which includes expected inflation)

An alternative way to look at this is that the required return is the sum of the risk-free rate (RFR) and a risk premium:

$$E(R_i) = RFR + Risk\ Premium \text{ ----- (17)}$$

The risk-free rate is the rate of interest that is earned for simply delaying consumption and not taking on any risk. It is also referred to as the pure time value of money which we discussed earlier in this chapter.

The risk-free rate is determined by:

- (c) The time preferences of individuals for consumption
- (d) Relative ease or tightness in money market (supply & demand)
- (e) Expected inflation
- (f) The long-run growth rate of the economy
- (g) Long-run growth of labor force
- (h) Long-run growth of hours worked
- (i) Long-run growth of productivity

The risk premium is the return required in excess of the risk-free rate. Theoretically, a risk premium could be assigned to every risk factor, but in practice this is impossible. Therefore, we can say that the risk premium is a function of several major sources of risk:

- (j) Business risk
- (k) Credit Risk/Default Risk
- (l) Liquidity risk
- (m) Maturity risk
- (n) Exchange rate risk

4.3.5. The MPT View of Required Returns

Modern portfolio theory assumes that the required return is a function of the RFR, the market risk premium, and an index of systematic risk:

$$E(R_i) = R_f + \beta_i(E(R_M) - R_f) \text{ ----- (18)}$$

Here

$E(R_i)$ = Expected return on stock

R_f = Risk free rate of return

β_i = Beta of stock, and

R_m = Market return

$(E(R_m) - R_f)$ = Risk premium (Excess market return)

The above relation can also be written as:

$$r_s = r_{RF} + (RP_M)b_{Firm} \text{ -----(19)}$$

where return on a stock r_s is defined as sum of risk free rate r_f and product of risk premium and beta (b). One should note that equation 17, 18 and 19 are different representations of same relationship.

This model is known as the Capital Asset Pricing Model (CAPM). Graphically Risk and Return can be represented in Figure

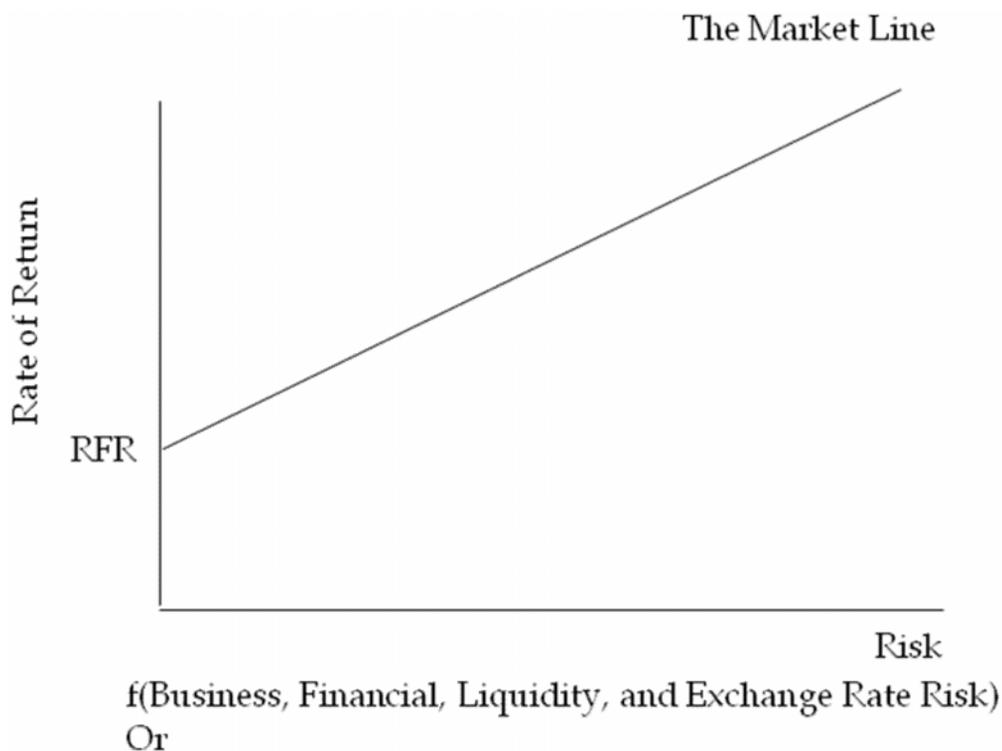


Figure-7

In addition to measuring a stock's contribution of risk to a portfolio, the coefficient beta (β_i) also measures the stock's volatility relative to the market.

It can be defined as:

$$\beta_i = \frac{\text{Covariance}_{i,m}}{\text{Variance}_m} \text{-----} (20)$$

One can also use simple linear regressions to estimate Beta. Run a regression with returns on the stock in question plotted on the Y axis and returns on the market portfolio plotted on the X axis. The slope of the regression line, which measures relative volatility, is defined as the stock's beta coefficient, or (β_i).

Many analysts use the BSE Sensex to find the market return. Analysts typically use four or five years' of monthly returns to establish the regression line. Some analysts use 52 weeks of weekly returns.

If $\beta_i = 1.0$, stock has average risk.

If $\beta_i > 1.0$, stock is riskier than average.

If $\beta_i < 1.0$, stock is less risky than average.

Most stocks have betas in the range of 0.5 to 1.5.

4.4. Valuation of Shares (common stock)

Common stock represents ownership of a small portion of a firm. Ownership implies that common shareholders can exercise control over the operations of firms by electing directors. Directors in turn hire management for day to day operations of the firm. Since managers are "agents" of shareholders, their goal should be to maximize stock price. A common stock is created when a firm "goes public" through an IPO and the stock is first offered to the public. Prior to an IPO, shares can be owned by the firm's managers, key employees, and, in many situations, venture capital providers. A seasoned equity offering occurs when a company with public stock issues additional shares. After an IPO or SEO, the stock trades in the secondary market, such as the BSE. Different Approaches for Valuing Common Stock

There are three broad approaches of valuing common stock. These are:

- (a) Dividend growth model
- (b) Using the multiples of comparable firms
- (c) Free cash flow method

4.4.1. Dividend growth model

For a constant growth stock, price of a stock can be calculated as

$$\hat{P}_0 = \frac{D_1}{(1+r_s)^1} + \frac{D_2}{(1+r_s)^2} + \frac{D_3}{(1+r_s)^3} + \dots + \frac{D_\infty}{(1+r_s)^\infty} \quad \text{----- (21)}$$

$$\begin{aligned} D_1 &= D_0(1+g)^1 \\ D_2 &= D_0(1+g)^2 \quad \text{----- (22)} \\ D_t &= D_0(1+g)^t \end{aligned}$$

Where P0 is the stock price, D1, D2 etc are dividends and rs is the required return on stock as per equations 17 18 and 19.

We can also say

$$\hat{P}_0 = \frac{D_0(1+g)}{r_s - g} = \frac{D_1}{r_s - g} \quad \text{----- (23)}$$

If $r_s < g$, get negative stock price, which is nonsense. We can't use model unless (1) $g < r_s$ and (2) g is expected to be constant forever. Because g must be a long-term growth rate, it cannot be $> r_s$.

Illustration.

Assume $\beta = 1.2$, $r_{RF} = 7\%$, and $RP_M = 5\%$. What is the required rate of return on the firm's stock?

Use the SML to calculate r_s :

$$\begin{aligned} r_s &= r_{RF} + (RP_M)\beta_{Firm} \\ &= 7\% + (5\%)(1.2) \\ &= 13\%. \end{aligned}$$

D_0 was Rs2.00 and g is a constant 6%. Find the expected dividends for the next 3 years, and their PVs. $r_s = 13\%$. The expected dividends for next 3 years can be found by using equations no.22 as 2.12, 2.2472 and 2.3820. We can also apply equation 23 the stock price can be calculated as:

$$\hat{P}_0 = \frac{2(1+0.06)}{0.13-0.06} = (2.12/0.07) = 30.29.$$

4.4.2. Using the Stock Price Multiples to Estimate Stock Price

Analysts often use the P/E multiple (the price per share divided by the earnings per share) or the P/CF multiple (price per share divided by cash flow per share, which is the earnings per share plus the dividends per share) to value stocks.

This can be done in following steps:

Step 1: Estimate the average P/E ratio of comparable firms. This is the P/E multiple.

Step 2: Multiply this average P/E ratio by the expected earnings of the company to estimate its stock price.

Some experts use several other ratios apart from P/E ratios to calculate stock price of a firm. This can be done in following steps

Step 1: Select companies for a given industry to which the firm we want to value belongs.

Step 2: Pick a measure, such as EBITDA, Sales, Customers, Eyeballs, etc.

Step 2: Calculate the value of each of the selected firms as $V = \text{market value of equity (\# shares of stock multiplied by the price per share) + value of debt}$.

Step 3: Calculate ratios for each firm selected as

- (a) V/Sales
- (b) V/EBITDA
- (c) $V/\text{Customers}$

Step 4: Calculate the average entity ratio by adding all the ratios for individual firms and dividing by the number of firms selected in sample.

Step 5: Find the entity value of the firm in question by multiplying the firm's C sales (the one to be valued) by the V/Sales multiple or multiply the firm's #no. of customers by the $V/\text{Customers}$. The result is the total value of the firm.

Step 6: Subtract the firm's debt to get the total value of equity.

Step 7: Divide by the number of shares to get the price per share of the firm in question.

There are several problems with market multiple methods. It is often hard to find comparable firms. At times the average ratio for the sample of comparable firms often has a wide range. For example, the average P/E ratio might be 20, but the range could be from 10 to 50. How do you know whether your firm should be compared to the low, average, or high performers?

4.4.3. Free Cash flow Method (FCF Method)

Corporate valuation through free cash flow method emphasizes that firms largely own productive assets (operating) and financial (non-operating) assets. Operating Assets are tangible assets, such as buildings, machines, inventory. Usually they are expected to grow and they generate free cash flows. Non operating assets can be defined as investments (long and short) of the firm.

The PV of their expected future free cash flows, discounted at the WACC, is the value of operations. Thus Value of Operations (Vop) is defined as:

$$V_{Op} = \sum_{t=1}^{\infty} \frac{FCF_t}{(1+WACC)^t} \quad \text{----- (24)}$$

We can also write the above formula in approximation as:

$$V_{op} = \frac{FCF_1}{(WACC - g)} = \frac{FCF_0(1+g)}{(WACC - g)} \quad \text{----- (25)}$$

Total corporate value is defined as $= V_{Op} + V_{non\ op}$. ----- (26)

Value of equity therefore is = Total Corporate Value - claims on the Firm (Debt + Preferred Stock)

Illustration:

If $FCF_0 = \text{Rs}20$ million, $WACC = 10\%$, growth in $FCF = 5\%$, Marketable securities = $\text{Rs}100$ million, Debt = $\text{Rs}200$ million, Preferred stock = $\text{Rs}50$ million, Book value of equity = $\text{Rs}210$ million then

Total corporate value = $V_{Op} + \text{Mkt. Sec.}$

$$V_{op} = \frac{FCF_0(1+g)}{(WACC - g)}$$

$$V_{op} = \frac{20(1+0.05)}{(0.10-0.05)} = 420$$

Total Corporate Value = $\text{Rs}420 + \text{Rs}100$
= $\text{Rs}520$ million

Value of equity = Total - Debt - Pref.
= $\text{Rs}520 - \text{Rs}200 - \text{Rs}50$
= $\text{Rs}270$ million

Divide this by number of shares to calculate price of one share.

4.5. Efficient Market Hypothesis (EMH)

The EMH states that securities are normally in equilibrium and are “fairly priced.” One cannot “beat the market” except through good luck or inside information. However there are three aspects of this hypothesis.

1. Weak-form EMH:

One cannot profit by looking at past trends. A recent decline is no reason to think stocks will go up (or down) in the future. Evidence supports weak-form EMH, but “technical analysis” is still used.

2. Semistrong-form EMH:

All publicly available information is reflected in stock prices, so it doesn’t pay to pore over annual reports looking for undervalued stocks. This also holds true in several markets

3. Strong-form EMH:

All information, even inside information, is embedded in stock prices. This is a very stringent condition which is rarely found to be true.

4.4 Valuation of Debt Securities

All debt securities are defined with parameters such as

1. Par value, M (Face amount paid at maturity)
2. Coupon interest rate, I: Stated interest rate. (Multiply by par value to get rupees of interest, generally fixed.)
3. Maturity, n: Years until bond must be repaid.
4. Yield k_d : required rate of return for an investor

Value of a bond in above terms is defined as:

$$P = \sum_{t=1}^n \frac{I}{(1+k_d)^t} + \frac{M}{(1+k_d)^n}$$

Where P is price of a bond, I the coupon in Rupees M the Maturity amount and k_d as the yield on the bond. n is number of periods for which coupon is paid.

Illustration:

Find the market price of a bond with face value of Rs 100, carrying a coupon of 10% and has a life of 5 years. The required rate of return (yield) is 13%.

$$89.44 \cong \frac{10}{1+0.13} + \frac{10}{(1+0.13)^2} + \frac{10}{(1+0.13)^3} + \frac{10}{(1+0.13)^4} + \frac{10+100}{(1+0.13)^5}$$

Chapter 5

Financial Statements Analysis

The purpose of financial statements is to provide decision makers with useful information about economic activities. These include both information about recent activities and forecasts of what may happen in the future. All type of decision makers -managers, investors, lenders and consumers use accounting information as a basis for making economic decisions.

Financial statements are set of accounting reports which taken together, describe the financial position of the business and the results of its recent operations. Financial position is described by identifying the company's financial resources and obligations as of a specific date.

A complete set of financial statements for a corporation includes three related accounting reports

- (a) A balance sheet, which shows the financial position of the business at a specific date by describing its financial resources and obligations
- (b) An income statement i.e. profit and loss a/c reports the company's profitability over a period of time.
- (c) A statement of cash flows, which summarizes the company's cash receipts and cash payments over a period of time covered by the income statements.

A complete set of financial statement also includes several pages of notes .These notes provide additional information that is useful interpreting the statements.

Publicly owned companies are required by law to report quarterly profit and loss statements in summarized format and furnish detailed financial statements at the end of each year. In exceptional cases, companies are allowed to change their accounting year and hence some period should comprise of more or less than 12 months.

5.1. THE BALANCE SHEET

The purpose of the balance sheet is to show the financial position of a business entity at a specific date. A balance sheet consists of a listing of the assets, the liability's and the owner's equity of a business. The balance sheet date is important, as the financial position of the business may change quickly.

The body of the balance sheet also consists of two distinct sections: assets and liabilities. Liabilities include liabilities towards outsiders and towards shareholders or owners. Shareholders funds comprise of capital and reserves.

Assets are economic resources owned by a business and expected to benefit future operations. Assets may have definite physical form such as buildings, machinery, or an inventory of merchandise. On the other hand, some assets exist not in physical or tangible form, but in the form of valuable legal claims or rights.

Liabilities are debts. The person or organization to whom the debt is owed is called a creditor.

Shareholders funds, also known commonly as equity or net worth, represent the owners' claim to the assets of the business. Because creditors' claims have legal priority over those of owners, owners' equity is a residual amount. Owners are entitled to "what is left" after the claims of creditors have been satisfied in full.

Owners' equity = Total Assets - Total Liabilities.

Owners' equity does not represent a specific claim to cash or any other particular asset. Rather it is the owners' overall financial interest in all of the company's assets.

5.2. THE INCOME STATEMENT

The accounting report that summarizes the revenues and the expenses of an accounting period is called the income statement and reports the results of operations and indicates reasons for the entity's profitability. Mere statistics/ data presented in the different financial statements do not reveal the true picture of a financial position of a firm. Properly analyzed and interpreted financial statements can provide valuable insights into a firm's performance: To extract the information from the financial statements, a number of tools are used to analyze these statements. The popular tools are:

- Comparative Financial Statements,
- Common Sized Statements and
- Ratio Analysis

5.3. COMPARATIVE FINANCIAL STATEMENTS

As a part of the financial reporting process, large business organizations prepare annual reports of their activities. These reports are sent to all of the company's stockholders. An annual report includes audited financial statements for the current year and the previous

year. Many annual reports provide summarized numbers for the past several years, could be 5 or even 10 years in some cases. These comparative financial statements enable users to spot trends in the company's operating results.

Analysts can also compare different organizations by putting beside each other figures in a comparative form and indicating differences between them in terms of rupees and percentages.

Financial Statements of ABC Limited for the year ended:

| Balance Sheets as at 31st March | 2001 | 2002 Rs. | Increase/ Decrease | % |
|--|-------------|---------------------|-------------------------------|----------|
| SOURCES OF FUNDS | | | | |
| Equity Capital | 40 | 40 | | |
| Reserves & Surplus | 20 | 25 | 5 | 2 |
| Secured Loans | 50 | 70 | 20 | 4 |
| Unsecured Loans | 10 | 8 | -2 | (20) |
| TOTAL | 120 | 143 | 23 | 1 |
| APPLICATION OF FUNDS | | | | |
| Fixed Assets | 62 | 68 | 6 | 1 |
| Investments | 24 | 32 | 8 | 3 |
| Current Assets | 53 | 58 | 5 | 9 |
| Current Liabilities | 19 | 15 | -4 | (21) |
| Net Current Assets | 34 | 43 | 9 | 2 |
| TOTAL | 120 | 143 | 23 | 1 |

5.4. COMMON SIZE STATEMENTS

A common size income statement expresses each item on the income statements as a percentage of net sales. A common-size balance sheet uses total assets as base. To identify changes in a company's operating results, investment mix and sources of capital common-size financial statements of two or more periods are prepared and the percentage figures for each line item are compared. This indicates relative importance of each item in the total and significant changes in the composition of the items.

COMMON SIZE FINANCIAL STATEMENTS

Financial Statements of ABC Limited for the year ended **Mar 2002**

| Balance Sheets as at 31st March | 2001 | Rs. Crore 2002 | Percentages 2001 | 2002 |
|--|-------------|-----------------------|-------------------------|-------------|
| SOURCES OF FUNDS | | | | |
| Equity Capital | 40 | 40 | 33 | 28 |
| Reserves & Secured | 20 | 25 | 17 | 17 |
| Unsecured | 50 | 70 | 42 | 49 |
| TOTAL | 120 | 143 | 100 | 100 |
| APPLICATION OF FUNDS | | | | |
| Fixed Assets | 62 | 68 | 52 | 48 |
| Investments | 24 | 32 | 20 | 22 |
| Current Assets | 53 | 58 | 44 | 41 |
| Current | 19 | 15 | 16 | 10 |
| Net Current | 34 | 43 | 28 | 30 |
| TOTAL | 120 | 143 | 100 | 100 |

5.5. RATIO ANALYSIS

In using financial statement information it often is helpful to express certain important relationships as ratios or percentages. A ratio is simply one number expressed in terms of another. It is found by dividing one number, the base, into the other. Some of the popular ratios are discussed in following paragraphs.

5.5.1. Liquidity ratios

Current Ratio

The ratio of current assets to current liabilities is called the current ratio. It is an important indication of an entity's ability to meet its current obligations because if current assets do not exceed current liabilities by a comfortable margin, the entity may be unable to pay its current bills. This is because most current assets are expected to be

converted into cash within a year or less. The higher the current ratio, the more is the firm's ability to meet current obligations, and greater is the safety of funds of short term creditors.

Hence Current Ratio = Current Assets / Current Liabilities

Quick Ratio /Acid Test Ratio

Some of the current assets are non-monetary assets. Some of these assets are difficult to convert to cash quickly. A ratio that focuses on the relationship of monetary assets to current liabilities is called the acid-test ratio, or quick ratio. Quick assets are those current assets that are also monetary assets; therefore they exclude inventories and prepaid expenses.

A firm with a large proportion of current assets in the form of cash and accounts receivable is more liquid than a firm with a high proportion of inventories even though two firms might have the same current ratio.

Acid Test Ratio

= Current Assets - (Inventory + Prepaid Expenses) / Current Liabilities.

5.5.2. Solvency ratios

Debt /Equity Ratio

A company with a high proportion of long term debt is said to be highly leveraged. The debt/equity ratio shows the balance that the management of a particular company has struck between these forces of risk versus cost. This is often called simply the debt ratio. It may be calculated in several ways. Debt may be defined as total liabilities, as interest-bearing current liabilities plus non-current liabilities, or as only non-current liabilities. The user must always be careful to ascertain which method is used in a given situation.

Including current liabilities, the debt/equity ratio is: Total liabilities / Shareholders' Equity. Excluding current liabilities, the ratio is: Interest bearing Liabilities / Shareholders' Equity.

It is more popular in India to use the second formula of the Debt Equity ratio indicated above. Some practitioners exclude Short term Debt in the above computation, but a practical problem arises as short term and long term debt details are not always available in the audited annual reports. A common approach is to then consider all debt for this purpose.

A high debt to equity ratio implies greater financial risk (on account of interest payment and legal actions by creditors). Therefore, for a newly set up firm equity finance is

preferred to debt finance.

Interest Coverage Ratio

Another measure of a company's financial soundness is the times interest earned, or interest coverage ratio. This is the relationship of company's income to its interest requirements. The numerator of this ratio is the company's pretax income before subtraction of interest expense.

Interest Coverage Ratio = Earnings before Depreciation, Interest and Tax / Interest.

5.5.3. Profitability ratios

Gross Margin Ratio

The difference between net sales revenue and cost of sales is the gross margin. It is the difference between the revenue generated from selling products and the related product costs. This ratio is defined as ratio between gross profit to net sales.

Gross Margin Ratio = Gross Profit / Net Sales.

Net Profit Ratio

It is defined as ratio between net profit to net sales i.e.

Net Profit Ratio = Net Profit / Net Sales.

This ratio shows the profits left for shareholders as a percentage of net sales. It measures the overall efficiency of production, administration, selling, financing, pricing and tax management.

5.5.4. Efficiency ratios

Inventory Turnover Ratio

The ratio most commonly used in analyzing the size of the inventory item is inventory turnover. Inventory Turnover = Cost of Goods Sold / Inventory.

Some companies calculate this ratio on the basis of the ending inventory, others on the basis of the average inventory. The average may be simply one-half the sum beginning and ending inventories for the year, or it may be an average of monthly inventory levels. The end-of-period basis is more representative of the current state of the inventory if volume is expected to continue at previous levels: The average basis is a better reflection of events that occurred during the period because it measures the amount of inventory that supported the sales activity of that period.

Inventory turnover varies greatly with the nature of business. One must also consider the seasonality of sales. For example, college book stores have high inventories before the start of each new term, with lower inventories in between. In such cases, inventory measured at various seasonal high and low points is of more significance.

Inventory turnover indicates the velocity with which merchandise moves through a business. The higher the ratio, the more efficient the inventory management (i.e. how quickly/fast the inventory is sold).

Average Collection Period

Average Collection Period represents the number of days taken to collect an account. The ratio is used to see how many days worth sales are represented in accounts receivables. It is defined as:

Average Collection Period = Average Accounts Receivable / Average Daily Credit Sales.

It can be roughly related to credit terms offered by the company. Change in the ratio indicates changes in the company's credit policy or changes in its ability to collect its receivables.

Fixed Asset Turnover Ratio

This ratio is used to measure the efficiency with which fixed assets are employed. A high ratio indicates an efficient use of fixed assets. Generally this ratio is high when the fixed assets are old and substantially depreciated.

Fixed Assets Turnover = Net Sales / Average Net Fixed Assets.

5.5.5. Valuation ratios

Earning Per Share

EPS measures the profit available to the equity shareholders on a per share basis, that is, the amount the company has earned on every share held. It is calculated by dividing the profits available to the shareholders by the number of outstanding shares. The profits available to equity shareholders are defined as Profit after Tax less Preference Dividend if any.

EPS = Net Profit after tax / No. of Equity Shares.

Dividend Yield

Two other ratios are related to another aspect of financial management: dividend policy. These ratios are the dividend yield and dividend payout.

Yield is expressed in terms of the market value per share. Dividend Yield = Dividend per share / Market price per Share
Dividend payout = Dividends / Profit after Tax.

Price Earning Ratio

The broadest and most widely used overall measure of performance is the price/earning or P/E ratio: = Market Price per share / Earnings per share.

This measure is not directly controlled by the company as it is based on the market price of its shares.

The P/E ratio is a good indicator of how investors judge the firm's future performance. Management, of course, is interested in this market appraisal, and a decline in the company's P/E ratio will be a cause for concern. Further, management would compare its P/E ratio with those of similar companies to determine the marketplace's relative ranking of the firms.

CHAPTER 6

FUTURES AND OPTIONS

Future and Options are two key derivative contracts introduced in Indian securities markets. These derivative contracts derive their prices from underlying assets such as the BSE Sensex and individual stocks traded on the BSE. According to the amended Securities Contract regulation Act, (1956) the term “derivative” includes:

- (i) 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;
- (ii) a contract which derives its value from the prices, or index of prices, of underlying securities.

BSE created history on June 9, 2000 by launching the first Exchange-traded Index Derivative Contract i.e. futures on the capital market benchmark index - the BSE Sensex. The inauguration of trading was done by Prof. J.R. Varma, member of SEBI and Chairman of the committee which formulated the risk containment measures for the derivatives market. The first historical trade of 5 contracts of June series was done that day between the Members Kaji & Maulik Securities Pvt. Ltd. and Emkay Share & Stock Brokers Ltd. at the rate of 4755.

In sequence of product innovation, BSE commenced trading in Index Options on Sensex on June 1, 2001, Stock Options were introduced on 31 stocks on July 9, 2001 and Single Stock Futures were launched on November 9, 2002.

September 13, 2004 marked another milestone in the history of the Indian capital market, when BSE launched Weekly Options, a unique product unparalleled worldwide in the derivatives markets. BSE permitted trading in weekly contracts in options in the shares of four leading companies namely Reliance Industries, Satyam, State Bank of India, and TISCO (now Tata Steel) in addition to the flagship index-Sensex.

6.1. Futures Contracts:

These are basically exchange traded, highly standardized forward contracts. The exchange stands guarantee to all transactions and counterparty risk is largely eliminated. The contracts can be settled by offsetting, exchange for physicals or actual delivery. Another differentiating feature is the marking to market of futures contract on a daily

basis. Some experts call forwards as OTC futures contracts. However it should be noted that both contracts are similar as far as their pricing and valuation is concerned. They are different however in terms of mechanics, trading and hedging.

The buyers of contracts are considered having a long position whereas the sellers are considered to be having a short position. It should be noted that this is similar to any asset market where anybody who buys is long and the one who sells in short.

6.2. Futures Terminology

- **Spot price:** The price at which an underlying asset trades in the spot market.
- **Futures price:** Futures price is the price that is agreed upon at the time of the contract for the delivery of an asset at a specific future date.
- **Contract cycle:** It is the period over which a contract trades. The index futures contracts on the BSE have one-month, two-month and three-month expiry cycles which expire on the last Thursday of the month. Thus a January expiration contract expires on the last Thursday of January and a February expiration contract ceases trading on the last Thursday of February. On the Friday following the last Thursday, a new contract having a three-month expiry is introduced for trading.
- **Expiry date:** In case of futures and options, the expiry date is the date on which the final settlement of the contract takes place.
- **Contract size:** The amount of asset that has to be delivered under one contract. This is also called as the lot size.
- **Basis:** In the context of financial futures, basis can be defined as the futures price minus the spot price. There will be a different basis for each delivery month for each contract. In a normal market, basis will be positive. This reflects that futures prices normally exceed spot prices.
- **Cost of carry:** The relationship between futures prices and spot prices can be summarized in terms of what is known as the cost of carry. This measures the storage cost plus the interest that is paid to finance the asset less the income earned on the asset.
- **Initial margin:** The amount that must be deposited in the margin account at the time a futures contract is first entered into is known as initial margin.
- **Marking-to-market:** In the futures market, at the end of each trading day, the margin account is adjusted to reflect the investor's gain or loss depending upon the futures closing price. This is called marking-to-market.
- **Maintenance margin:** Investors are required to place margins with their trading members before they are allowed to trade. If the balance in the margin account

falls below the maintenance margin, the investor receives a margin call and is expected to top up the margin account to the initial margin level before trading commences on the next day.

6.3. Trading Underlying vs. Trading Single Stock Futures

- The single stock futures market in India has been a great success story across the world. One of the reasons for the success could be the ease of trading and settling these contracts.
- To trade securities, a customer must open a security trading account with a securities broker and a demat account with a securities depository. Buying security involves putting up all the money upfront. With the purchase of shares of a company, the holder becomes a part owner of the company. The shareholder typically receives the rights and privileges associated with the security, which may include the receipt of dividends, invitation to the annual shareholders meeting and the power to vote.
- Selling securities involves buying the security before selling it. Even in cases where short selling is permitted, it is assumed that the securities broker owns the security and then "lends" it to the trader so that he can sell it.
- To trade in futures, a customer must open a futures trading account with a derivatives broker. Buying futures simply involves putting in the margin money. They enable the futures traders to take a position in the underlying security without having to open an account with a securities broker. With the purchase of futures on a security, the holder essentially makes a legally binding promise or obligation to buy the underlying security at some point in the future (the expiration date of the contract). Security futures do not represent ownership in a corporation and the holder is therefore not regarded as a shareholder.
- A futures contract represents a promise to transact at some point in the future. Therefore, a promise to sell security is just as easy to make as a promise to buy security. Selling security futures without previously owning them simply obligates the trader to sell a certain amount of the underlying security at some point in the future. It can be done just as easily as buying futures, which obligates the trader to buying a certain amount of the underlying security at some point in the future. In the following sections we shall look at some uses of security future.

6.4. PRICING OF FUTURES

Pricing of futures contract is very simple. Using the cost-of-carry logic, we calculate the fair value of a futures contract. Every time the observed price deviates from the fair value, arbitragers would enter into trades to capture the arbitrage profit. This in turn would push the

futures price back to its fair value. The cost of carry model used for pricing futures is given below:

$$F = S e^{rT}$$

where:

- r Cost of financing (using continuously compounded interest rate)
- T Time till expiration in years
- e 2.71828

Example: Security XYZ Ltd trades in the spot market at Rs. 1150. Money can be invested at 11% p.a. The fair value of a one-month futures contract on XYZ is calculated as follows:

$$\begin{aligned} F &= S e^{rT} \\ &= 1150 * e^{0.11 * \frac{1}{12}} \\ &= 1160 \end{aligned}$$

6.4.1. Pricing equity index futures

A futures contract on the stock market index gives its owner the right and obligation to buy or sell the portfolio of stocks characterized by the index. Stock index futures are cash settled; there is no delivery of the underlying stocks.

In their short history of trading, index futures have had a great impact on the world's securities markets. Its existence has revolutionized the art and science of institutional equity portfolio management.

The main differences between commodity and equity index futures are that:

- There are no costs of storage involved in holding equity.
- Equity comes with a dividend stream, which is a negative cost if you are long the stock and a positive cost if you are short the stock.

Therefore, Cost of carry = Financing cost - Dividends. Thus, a crucial aspect of dealing with equity futures as opposed to commodity futures is an accurate forecasting of dividends. The better the forecast of dividend offered by a security, the better is the estimate of the futures price.

6.4.2. PRICING STOCK FUTURES

A futures contract on a stock gives its owner the right and obligation to buy or sell the stocks. Like index futures, stock futures are also cash settled; there is no delivery of the

underlying stocks. Just as in the case of index futures, the main differences between commodity and stock futures are that:

- There are no costs of storage involved in holding stock.
- Stocks come with a dividend stream, which is a negative cost if you are long the stock and a positive cost if you are short the stock.

Therefore, Cost of carry = Financing cost - Dividends. Thus, a crucial aspect of dealing with stock futures as opposed to commodity futures is an accurate forecasting of dividends. The better the forecast of dividend offered by a security, the better is the estimate of the futures price.

6.5. Options Contracts:

Options are contracts which give the holder a right but not obligation to buy or sell an asset. The buyer can have unlimited profits but can limit his losses to the extent of premium paid for acquiring the option. Option contracts are of two types Puts and Calls. One can buy and sell each of the contracts. When one buys an option he is said to be having a long position and when one sells he is said to be having a short position. The buyer (holder) of an option can exercise the option depending upon the spot price of the asset. For example the buyer (holder) of a call option has a right to buy an asset at the strike price before the maturity of the contract. Option contracts are both over the counter as well as exchange traded. They are available on a wide variety of financial assets including those on futures and swap contracts. According to the Securities Contract Regulation Act, 1956 “option in securities” means a contract for the purchase or sale of a right to buy or sell, or a right to buy and sell, securities in future, and includes a put, a call or a put and call in securities.

Options are the most recent and evolved derivative contracts. They have non linear or asymmetrical profit profiles making them fundamentally very different from futures and forward contracts. Options have allowed both theoreticians as well as practitioners’ wide range of possibilities for engineering different and sometimes exotic pay off profiles. Option contracts help a hedger reduce his risk with a much wider variety of strategies.

An option gives the holder of the option the right to do something in future. The holder does not have to exercise this right. In contrast, in a forward or futures contract, the two parties have committed themselves or are obligated to meet their commitments as specified in the contract. Whereas it costs nothing (except margin requirements) to enter into a futures contract, the purchase of an option requires an up-front payment. This chapter first introduces key terms which will enable the reader understand option terminology. Afterwards futures have been compared with options and then payoff profiles of option contracts have been defined diagrammatically. Readers can create

these payoff profiles using payoff tables. They can also use basic spreadsheet software such as MS-Excel to create these profiles.

6.6. Option Terminology

- **Index options:** These options have the index as the underlying. Some options are European while others are American. Like index futures contracts, index options contracts are also cash settled.
- **Stock options:** Stock options are options on individual stocks. Options currently trade on over 500 stocks in the United States. A contract gives the holder the right to buy or sell shares at the specified price.
- **Buyer of an option:** The buyer of an option is the one who by paying the option premium buys the right but not the obligation to exercise his option on the seller/writer.
- **Writer of an option:** The writer of a call/put option is the one who receives the option premium and is thereby obliged to sell/buy the asset if the buyer exercises on him.

There are two basic types of options, call options and put options.

- **Call option:** A call option gives the holder the right but not the obligation to buy an asset by a certain date for a certain price.
- **Put option:** A put option gives the holder the right but not the obligation to sell an asset by a certain date for a certain price.
- **Option price/premium:** Option price is the price which the option buyer pays to the option seller. It is also referred to as the option premium.
- **Expiration date:** The date specified in the options contract is known as the expiration date, the exercise date, the strike date or the maturity.
- **Strike price:** The price specified in the options contract is known as the strike price or the exercise price.
- **American options:** American options are options that can be exercised at any time upto the expiration date. Most exchange-traded options are American.
- **European options:** European options are options that can be exercised only on the expiration date itself. European options are easier to analyze than American options and properties of an American option are frequently deduced from those of its European counterpart.
- **In-the-money option:** An in-the-money (ITM) option is an option that would lead to a positive cash flow to the holder if it were exercised immediately. A call option on the index is said to be in-the-money when the current index stands at a level higher than the strike price (i.e. spot price > strike price). If the index is much higher than the strike price, the call is said to be deep ITM. In the case of a put, the put is ITM if the index

is below the strike price.

- **At-the-money option:** An at-the-money (ATM) option is an option that would lead to zero cash flow if it were exercised immediately. An option on the index is at-the-money when the current index equals the strike price (i.e. spot price = strike price).
- **Out-of-the-money option:** An out-of-the-money (OTM) option is an option that would lead to a negative cash flow if it were exercised immediately. A call option on the index is out-of-the-money when the current index stands at a level which is less than the strike price (i.e. spot price < strike price). If the index is much lower than the strike price, the call is said to be deep OTM. In the case of a put, the put is OTM if the index is above the strike price.
- **Intrinsic value of an option:** The option premium can be broken down into two components - intrinsic value and time value. Intrinsic value of an option at a given time is the amount the holder of the option will get if he exercises the option at that time. In other words, the intrinsic value of an option is the amount the option is in-the-money (ITM). If the call is OTM, its intrinsic value is zero. Putting it another way, the intrinsic value of a call is $Max[0, (S_t - K)]$ which means the intrinsic value of a call is the greater of 0 or $(S_t - K)$. Similarly, the intrinsic value of a put is $Max[0, K - S_t]$, i.e. the greater of 0 or $(K - S_t)$. K is the strike price and S_t is the spot price.
- **Time value of an option:** The time value of an option is the **difference between its premium and its intrinsic value**. Both calls and puts have time value. An option that is OTM or ATM has only time value. Usually, the maximum time value exists when the option is ATM. The longer the time to expiration, the greater is an option's time value, all else equal. At expiration, an option should have no time value.

6.7.Pricing of Options Contracts

There are various models which help us get close to the true price of an option. Most popular among them are the binomial option pricing model and the much celebrated Black-Scholes model. Today most calculators and spread-sheets come with a built-in Black-Scholes options pricing formula so to price options we don't really need to memorize the formula. All we need to know is the variables that go into the model.

Option prices are affected by six factors. These are Spot Price (S), Strike Price (X), Volatility (σ) of spot price, Time for expiration of contract (T) risk free rate of return (r) and Dividend on the asset (D). The price of a call option rises with rise in spot price as due to rise in prices the option becomes more likely to exercise. It however falls with the rise in strike price as the payoff (S-X) falls. The opposite is true for the price of put options. The rise in volatility levels of the stock price however leads to increase in price of both call and put options. The option price is higher for an

option which has a longer period to expire. Option prices tend to fall as contracts are close to expiry. This is because longer the term of an option higher is the likelihood or probability that it would be exercised. It should be noted that the time factor is applicable only for American options and not European types. The rise in risk free rate tends to increase the value of call options and decrease the value of put options. Similarly price of a call option is negatively related with size of anticipated dividends. Price of put option positively related with size of anticipated dividends.

For the sake of simplicity the above relationships have been written for options on non dividend paying stocks. In practice a minor adjustment is done in the formulae to calculate the price limits for options on dividend paying stocks.

6.7.1. The Binomial Option Pricing Model

The Binomial model is based on the assumption that there could be only two possible changes in any stock price in time T. This is called up movement or down movement. An option contract (call or put) on this stock would last for time T and is dependent on a stock. Stock price S can move up to a value S_u or down to S_d where $u > 1$ and $d < 1$. This will be calculated as $S_u = S(u)$ and $S_d = S(d)$. If change in price is 10% (0.1) then $u = 1.1$ ($1 + 0.1$) and $d = 0.9$ ($1 - 0.1$). Figure 6.1 shows the process of stock price changes. Here the model can be extended for several periods as is shown in illustration 6.1. f_u and f_d in the Figure 6.1 are the payoffs on option and are calculated by subtracting strike price X of an option from S_u and S_d (in case the derivative is a call option) which are the new stock prices after time T. f is the present value of payoffs and is called the price of the option contract.

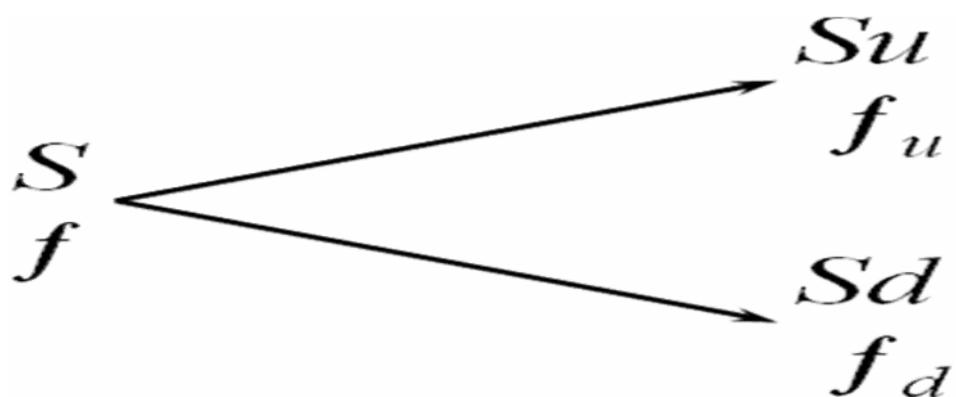


Figure 6.1

The price of an option contract is given as:

$$f = [p f_u + (1 - p) f_d] e^{-rT} \quad \text{-----} \quad 6.1$$

Here p is the probability of up movement and $1-p$ the probability of down movement of stock price. p can also be calculated as:

$$p = \frac{e^{rT} - d}{u - d} \text{-----6.2}$$

where up movement and down movement over a small period Δt can be also defined as.

$$u = e^{\sigma\sqrt{\Delta t}} \text{-----6.3}$$

$$d = e^{-\sigma\sqrt{\Delta t}} \text{-----6.4}$$

Here σ is the volatility of stock price.

6.7.2. The Black-Scholes formula

The Black-Scholes formulas for the prices of European calls and puts with strike price X on a non-dividend paying stock are the roots of the differential equation 6.5 (without proof):

$$\begin{aligned}
 C &= SN(d_1) - Xe^{-rT}N(d_2) \\
 P &= Xe^{-rT}N(-d_2) - SN(-d_1) \\
 \text{where } d_1 &= \frac{\ln \frac{S}{X} + (r + \sigma^2/2)T}{\sigma\sqrt{T}} \\
 \text{and } d_2 &= d_1 - \sigma\sqrt{T}
 \end{aligned}$$

- $N(x)$ is the cumulative distribution function for a standardized normal distribution.
- The expression $N(d_2)$ is the probability that the option will be exercised in a risk neutral world, so that $N(d_2)$ is the strike price times the probability that the strike price will be paid.
- The expression $S_0N(d_1)e^{rt}$ is the expected value of a variable that equals S_T if $S_T > X$ and is 0 otherwise in a risk neutral world. Here S_T is the spot price at time T and X is the strike price.
- σ is a measure of volatility, is the annualized standard deviation of continuously compounded returns on the underlying. When daily *sigma* is given, they need to be converted into annualized *sigma*.
- $\text{Sigma}_{annual} = \text{sigma}_{daily} \times \sqrt{\text{Number of trading days per year}}$. On an average there are 250 trading days in a year.
- X is the exercise price, S the spot price and T the time to expiration measured in

years.

- When S becomes very large a call option is almost certain to be exercised.
- It also becomes similar to a forward contract with a delivery price K. Thus the call option price will be $c = S - Xe^{-rT}$
- As S becomes very large both $N(d_1)$ and $N(d_2)$ are both close to 1.0. Thus
- Similarly the put option price will be 0 as $N(-d_1)$ and $N(-d_2)$ will be close to 0.

Similarly when σ approaches zero d_1 and d_2 tend to infinity so that $N(d_1)$ and $N(d_2)$ tend to 1.0 and the value of call option is:

$$c = S - X e^{-r T}$$

Thus the call price will always be the $\max(S - X e^{-r T}, 0)$.

The Black Scholes model uses continuous compounding as discussed in earlier Chapters one need not remember the formulae or equation as several option price calculators are available freely (in spreadsheet formats also).

The futures & options trading system of BSE provides a fully automated screen-based trading for Index futures & options and Stock futures & options on a nationwide basis as well as an online monitoring and surveillance mechanism. It supports an order driven market and provides complete transparency of trading operations. It is similar to that of trading of equities in the cash market segment.

6.8. Types of Memberships in BSE Derivatives Segment

BSE has five broad membership categories. These are:

Trading Member

A trading member should be an existing member of BSE cash segment. A trading member has only trading rights but no clearing rights. He has to associate with a clearing member to clear his trades.

Trading-Cum-Clearing Member

A trading-cum-clearing member should be an existing member of BSE cash segment. ATCM can trade and clear his trades. In addition, he can also clear the trades of his associate trading members.

Professional Clearing Member/Custodial Clearing Member:

A professional clearing member need not be a member of BSE cash segment. A PCM has no trading rights and has only clearing rights i.e. he just clears the trades of his associate trading members & institutional clients.

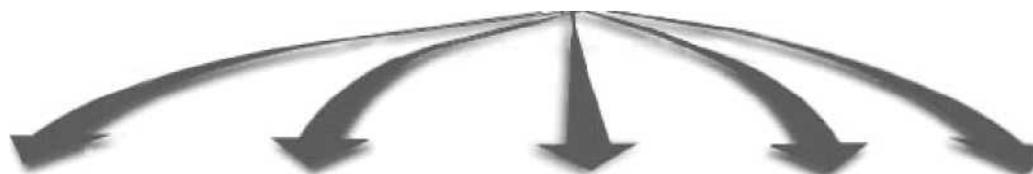
Limited Trading Member

A Limited Trading Member need not be a Member of BSE cash segment. A LTM has only trading rights and no clearing rights. He has to associate with a Clearing Member to clear his trades.

Self Clearing Member

A Self Clearing Member should be an existing Member of the BSE cash segment. An SCM can clear and settle trades on his own account or on account of his client only and not for any other Trading Member.

Membership Categories



**TRADING
TRADING-CUM-
MEMBER
CLEARING (TM)
MEMBER (TCM)**

**PROFESSIONAL
CLEARING
MEMBER (PCM) /
CUSTODIAL
CLEARING
MEMBER (CU)**

**LIMITED
TRADING
MEMBER (LTM)**

**SELF CLEARING
MEMBER (SCM)**

The futures & options trading system of BSE provides a fully automated screen-based trading for Index futures & options and Stock futures & options on a nationwide basis as well as an online monitoring and surveillance mechanism. It supports an order driven market and provides complete transparency of trading operations. It is similar to that of trading of equities in the cash market segment.

The software for the F&O market has been developed to facilitate efficient and

transparent trading in futures and options instruments. Keeping in view the familiarity of trading members with the current capital market trading system, modifications have been performed in the existing capital market trading system so as to make it suitable for trading futures and options. The Derivatives Trading at BSE takes place through a fully automated screen-based trading platform called DTSS (Derivatives Trading and Settlement System). The DTSS is designed to allow trading on a real-time basis. In addition to generating trades by matching opposite orders, the DTSS also generates various reports for the member participants.

CHAPTER 7

TRADING

7.1. Introduction

BSE On-Line Trading System (BOLT):

BSE On-Line Trading System, popularly known as the BOLT System took its genesis in the year 1994, as part of the four-phase computerization program to create an automated trading environment. BOLT system aimed at converting the Open Outcry System of trading to a Screen-based trading system (SBT). BSE had the requisite knowledge base and virtue of more than 115 year track record in the capital markets; BSE embarked on the specified project in 1991 and seamlessly completed the fourth phase in March 1995. The expansion of BOLT to cities outside Mumbai was started in 1997.

BOLT is supported on the hardware front by the Tandem Non-Stop Himalaya System which is specifically designed to cater to the requirements of the On Line Transaction Processing (OLTP) environment. BOLT System works on the Tandem **NS 16000 & NS 16200** platforms running on 32 CPUs. The existing set-up, a fault tolerant system with scalable architecture can handle a maximum of 3500 trades every second against a daily average of 36 lakh trades a day when BOLT was started. Further, the average time of execution is 222 orders per second with a peaking speed of 6000 orders per second. The BOLT system is order driven. The system comprises of a Tandem Himalaya NS 16000 & NS 16200 machines acting as backend to more than 17000 Trader Work Stations (TWS) networked on Ethernet, VSAT and LAN network.

BOLT is architecture as a two-tier system. TWS is connected directly to the back-end server. It acts as a communication server as well as the Central Trading Engine (CTE). In addition to the above, other services like information dissemination, index computation, position monitoring is also provided in the system.

In an On-Line Transaction Processing (OLTP) environment, data integrity is of primordial importance. The Transaction Monitoring Facility (TMF) in the Tandem ensures data integrity through Non-Stop SQL. The fault tolerance feature is ensured at each level i.e. Process, disk, CPU, Networking, etc. In case of any server failure, the transaction is automatically taken over by the other server without affecting data integrity.

BSE has adopted client-server architecture to enhance performance. The Client portion

of the software residing in the TWS is based on Windows-SDK. This PC-based TWS keeps the latest information in memory and responds to queries instantaneously. It also offloads much of the computing load on the Tandem.

The client-server architecture facilitates broadcast information, which appears on the screen giving real time prices. All the queries are allowed locally from the database, thereby substantially reducing the load on the trading system. The software design ensures that messages sent across from the BOLT to the TWS are in a compressed form, utilizing lesser bandwidth than under normal form.

Networking:

Networking plays a very important role in terms of connectivity to not only the officers of the Exchange, but also the Trading Members. Trading Members are networked through 3 different modes. i.e. Local Area Network (LAN), Leased Lines (WAN) and VSATs. This provides members with the option of multiple/ alternate modes of connectivity.

7.2. DIFFERENT GROUPS LISTED IN BSE

Different Groups:

Equity shares of the Companies are listed under the under mentioned Groups on the Exchange:

- A Group
- B Group
- S Group (INDO NEXT)
- T Group (based on Surveillance Action)
- TS Group (based on Surveillance Action)
- Z Group

Debentures/Bonds issued by companies are listed under F Group (i.e. fixed income securities) while the Government Securities are listed under G Group. Margins in transactions on 'F' group are charged at 10 % flat rate.

All the listed scrips are grouped into above-specified groups depending upon the type of the security and in case of equity shares it also depends upon their trading volume and liquidity. Normally, the scrips are shifted from one group to another from time to time considering their liquidity and trading volume.

Note:

- 1) The Exchange generates Delivery and Receive Orders for transactions done by

the Trading Members in A, B, S, F and G group scrips after netting purchase and sale transactions in each scrip whereas Delivery and Receive Orders for "T", "TS" & "Z" group scrips, the odd lot transactions, 6 lakh series transactions and the Block Deal transactions, which are traded on the Exchange on "trade to trade" basis are generated on gross basis (i.e., without netting of purchase and sell transactions in a scrip). *However, the funds obligations for the Trading Members/Custodians are netted for transactions across all groups of securities.*

- 2) The Trading Members may note that a warning message box ("Please note that the Scrip is in the 'T' GROUP and Trades would be settled on "Trade to Trade' basis" Do you wish to continue?") will be flashed on BOLT-TWS on entering of the order in "T", "TS" and "Z" group scrips. It informs the trader that the order placed is for "T" or "TS" or "Z" group scrip and its settlement will be based on trade-to-trade basis. The default option is " No" .The trader will have to specifically select option "YES" for placing the order. If trader selects "No" option then that order will not be accepted.
- 3) The 'Z' group was introduced by BSE in July 1999 and includes companies which have failed to comply with its listing requirements and/or have failed to resolve investor complaints and/or have not made the required arrangements with both the depositories, viz., Central Depository Services (I) Ltd. (CDSL) and National Securities Depository Ltd. (NSDL) for dematerialization of their securities
- 4) BSE also provides a facility to the market participants for on-line trading of odd-lot securities in physical form in 'A', 'B', 'T', 'S', 'TS' and 'Z' groups and in rights renunciations in all groups of scrips in the Equity Segment.
- 5) With effect from December 31, 2001, trading in all securities listed in the Equity segment takes place in one market segment, viz., Compulsory Rolling Settlement Segment (CRS).
- 6) The scrips of companies which are in demat can be traded in market lot of 1. However, the securities of companies which are still in the physical form are traded in the market lot of generally either 50 or 100. Investors having quantities of securities less than the market lot are required to sell them as "Odd Lots". This facility offers an exit route to investors to dispose of their odd lots of securities, and also provides them an opportunity to consolidate their securities into market lots.
- 7) This facility of selling physical shares in compulsory demat scrips is called an Exit

Route Scheme. This facility can also be used by small investors for selling up to 500 shares in physical form in respect of scrips of companies where trades are required to be compulsorily settled by all investors in demat mode.

- 8) As per SEBI circular No.SMDRP/DC/Cir-13/02 dated the December 18, 2002, for unlisted companies coming out with initial public offering, if the net public offer is Rs.500 Crore or more, then the exchanges may consider introducing stock options and stock futures on such stocks at the time of its listing in the cash market.

7.3. Scrip Codes/Scrip ID

The Exchange allots Scrip Codes and Scrip IDs to the securities issued by the companies at the time of listing them on Exchange. The fully paid-up equity shares of the Company will have a 5 lakh series code for e.g. State Bank of India Scrip code allotted by the Exchange is "500112" while scrip id allotted is "SBI". Hence, the trader can enter/select either Scrip Id or Scrip Code at the time of entering the order from the order entry window.

Classification of Codes on BOLT System for various types of securities issued by Company is stated below:

| No | Security | | Code Series | | Remarks |
|----|---|---------------|---------------|--------|--|
| | | | From | To | |
| 1 | Equity | Fully Paid-up | 5 Lakh Series | | Selling Client ONLY "FII" and Buying Client can be only be Institutional Client (i.e. "FII") |
| | | | 6 Lakh Series | | |
| | | Partly Paid- | 890001 | 90000 | |
| 2 | Preference Shares | | 700001 | 72000 | |
| 3 | Right Renunciation Forms (Composite Application Form) | | 750001 | 790000 | Trading through ODD LOT Window |
| 4 | Corporate Bonds/Debentures | | 9 Lakh Series | | |
| 5 | Government Securities | | 800001 | 82000 | |
| 6 | Future Scripts | | 820001 | 88999 | |

7.4. TRADING MEMBER'S CAPITAL

The Trading Members are required to maintain the under mentioned capitals with the Exchange:

- i) **BASE MINIMUM CAPITAL (BMC):** BMC of Rs.10 lakh is to be kept by all the Trading Members and the same is not available for adjustment towards margin obligations.
- ii) **Trade Guarantee Fund (TGF):** Trading Members are also required to deposit with the Exchange a sum of Rs.10 lakh towards his contribution to the Trade Guarantee Fund (TGF). The Trading Members are allowed to deposit cash/FDRs/Bank Guarantee (i.e. Cash & Cash Equivalent) towards their contribution to TGF. TGF will be available for adjustment towards margins (i.e. for taking trading exposure). The Trade Guarantee Fund Scheme is managed by the defaulter's committee
- iii) **ADDITIONAL CAPITAL (AC):** For availing higher trading limits, Trading Members can deposit additional capital in form of cash & non-cash equivalents. AC will be available for adjustment towards margins (i.e. for taking trading exposure).

Marginable/Non-Marginable Trades: The Trading Member can do transactions in their own account or on behalf of their clients. All transactions done by the Trading Members on behalf of their non-institutional categories of clients (i.e. "OWN", "NRI" and "Client") are marginable while the transactions done by them on behalf of their institutional clients viz. "Foreign Institutional Investors (FII)", "Mutual Fund (MF)", "Financial Institutions (FI)", "Banks" and "Insurance companies (INS)") are non-marginable (refer SEBI circular No.MRD/DoP/SE/Cir-7/2005 dated the February 23, 2005).

The Trading Member will be able to take Exposure only up to the extent of its available Total Liquid Assets (i.e. Cash & Cash Equivalent + Non-Cash Equivalent).

7.5. CALCULATION OF MARGINS

There are two categories of Margins payable by the Trading Members on marginable transactions. They are stated below:

A) ONLINE UPFRONT BLOCKING/RELEASE OF MARGINS

- i) **Value at Risk Margin (VaR):** The VaR Margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99%

Value at Risk).

ii) Extreme Loss Margins (ELM): It covers the expected loss in situations that go beyond those envisaged in the 99% value at risk estimates used in the VaR margin.

Note: Collection of VaR & ELM Margins will be as follows:

- a) The VaR and ELM margins shall be collected on an upfront basis by adjusting against the total liquid assets of the trading member at the time of trade.
- b) The VaR margin shall be collected on the gross open position (value) of the trading member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a trading member including his proprietary position.
- c) For this purpose, there would be no netting of positions across different settlements.
- d) The VaR and ELM margins so collected shall be released along with the pay- in, including early pay-in of securities.

From June 10, 2006, like in derivatives segment, Value at Risk Margins and Extreme Loss Margins are computed and applied on Intra-Day basis. On start of Trading Hours VaR and ELM margins which were calculated at the End of the Previous Day is applied to all the transactions upto 11:00 a.m. The VaR and ELM margins are recomputed at 11:00 a.m., 12:30 a.m., 2:00 p.m., 3:30 p.m. and again recomputed at the End of Day.

B) END OF DAY MARGINS

- i) **Mark to Market Margin (MTM):** Mark to market losses is collected on outstanding settlement obligations of the Trading Member.
- ii) **Special Margin:** Special Margin if imposed on scrip is collected along with MTM from the Trading Members.

Note: Collection of MTM & Special Margins will be as follows:

Collection of Mark to Market Margin: Mark to Market Losses are collected in

the following manner:

- a) The Exchange collects the mark to market margin (MTM) from the member/broker before the start of the trading of the next day.
- b) The MTM margin is collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange and the balance (if any) is collected in the form of cash from the Trading Members through their Designated Clearing Banks on the same day.
- c) The MTM margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including his proprietary position. For this purpose, the position of a client would be netted across his various securities and the positions of all the clients of a broker would be grossed. Further, there is no netting across two different settlements.
- d) There is no netting off the positions and setoff against MTM profits across 2 rolling settlements i.e. T day and T-1 day. However, for computation of MTM profits/losses for the day, netting or setoff against MTM profits is permitted
- e) The margin so collected is released along with the pay-in, including early pay-in of securities.

For more details on the aforesaid topic, please refer to the topic "Risk Management" in the chapter "Clearing & Settlement".

7.6. TRADING MODEL - ORDER EXECUTION

7.6.1. **BIDS/OFFERS**

In BOLT system buy and sell orders entered by the Trading Members are known as "Bid" and "Offers", respectively.

7.6.2. **ORDER BOOK**

For a particular scrip, all the Orders (Bids/Offers) except Block Deal Order/s and Odd lot Order/s entered by the various Trading Members comes to the common Order Book of BOLT system and are arranged according to the Best bid rates (in descending rate wise) / offer rates (in ascending rate wise). The BOLT system displays the Top 5 Best Bids and Offers in the Market View Picture (click "Refresh" pushbutton in the Order Entry window).

The Topmost Best Bid/Offer is known as TOUCHLINE and the BOLT system displays the same in the Order Entry window and also in the Touchline Window.

The under mentioned table displays the various bid/offer orders entered by the various Trading Members for Scrip ABC Ltd (Scrip Code 500000).

| Bid Quantity | Bid Rate (Rs.) | Sell Quantity | Sell Rate(Rs.) |
|--------------|----------------|---------------|----------------|
| 1000 | 51.00 | 400 | 52.00 |
| 200 | 51.00 | 600 | 52.05 |
| 100 | 50.00 | 100 | 53.00 |

The Orders are arranged based on Rate priority (i.e. in Descending order for Bids and ascending Order for Offers) and within Rate priority on Timestamp wise. This means at same bid/offer rate the order which was entered in the system first will get the first chance in execution of the transaction.

From the aforesaid orders the TOP 5 Best Bid/Offer will be shown as under:

| Bid Quantity | Bid Rate (Rs.) | Sell Quantity |
|--------------|----------------|---------------|
| 1200 | 51.00 | 400 |
| 100 | 50.00 | 600 |
| | | 100 |

The Touchline in the above example would be B (for Bid) 1200 shares shares @ Rs.52/-.

Sell Rate (Rs.) 52.00 52.05 53.00

Rs.51 and S (for Offer) 50

In the above example, if Trading Member 1 has entered the order for buying 1000 shares at 10:02:00 and Trading Member 2 has entered the order for buying 200 shares at 10:00:02 than if the trade is executed based on the Order Matching Logic, Trading Member 2 will get priority in execution of its buy orders, as his order was entered first in the BOLT system.

Touchline: The Best Bid bid/offer from the above table is known as Touchline (i.e. B (bid) 1200 @ Rs.1200 S (offer) 400 @ Rs.52.00).

7.6.3. TICK SIZE

Tick size is the minimum difference in rates between two orders entered on the BOLT system for particular scrip. Trading in scrips listed on the Exchange is done with the tick size of 5 paisa. Hence, if the Trader wants to outbid the Best Bid in the scrip which is

appearing in the Touchline, he has to make a bid which is minimum 5 paisa more than the prevailing best bid rate and in case of Offers the Trader should offer the shares at a rate which is minimum 5 paisa less than the prevailing Best Offer rate.

However, in order to increase the liquidity and enable the market participants to put orders at finer rates, the Exchange has reduced the tick size from 5 paise to 1 paise in case of:

- (i) units of Mutual Funds,
- (ii) securities which are traded in "F" and "G" group and
- (iii) equity shares having closing price upto Rs.15/- on the last trading day of the calendar month will have tick size of 1 paise for the next full month.

7.6.4. ORDER MATCHING LOGIC (except the ODD LOT and BLOCK DEAL orders)

All incoming orders would first be matched against the best price (bids/offers, as the case may be) available in the market. Therefore, at a given price, till the available depths of all orders quoting at the touchline price are exhausted, the incoming order cannot be matched against any standing order from the order book. The only way an order from the order book can be matched against an incoming order is having a price better than the best rates prevalent in the market at that point in time.

7.6.5. Various Types of Orders on BOLT System are stated below with the Order Description:

| No . | Order Type along with Order Type Tag | Order Description |
|------|--------------------------------------|---|
| 1 | Limit (L) | To be executed at a particular price or better. |
| 2 | Market (M)/New Market | To be executed at prevailing market price. |
| 3 | New Market Order (G) | To be executed at prevailing best market price |
| 4 | Immediate/Cancel (C) | To be executed at prevailing best market price and remaining killed |
| 5 | Odd Lot (O) | Refer Odd Lot Section. |
| 6 | Block Deal (K) | Refer Block Deal Section. |
| 7 | Stop Loss (P) | Refer Stop Loss Section. |
| 8 | Basket (B) | To be Executed at the prevailing market rates. |

All the aforesaid orders are discussed below one after the other.

Limit Orders (Order Type flag "L")

These are orders for buying and selling a certain quantity of particular scrip **at a specified price or better, if possible**. In case the required quantity or part of the required quantity is not available at the price specified, the balance-unexecuted quantity would be stored as a standing limit order at the specified price. Standing Limit orders would be killed by the system, either at the end of the session or day depending upon the choice exercised by the Trading Member when the order was entered. ***Pending Orders could, however be cancelled or modified at anytime. There is an option to save the pending orders in a file with extension.***

Drip feed Orders (Revealed Quantity): Whenever a Trading Member/Trader wishes to trade for a very large quantity; he may not wish to reveal the entire quantity. A mechanism, called drip-feeding, has been devised by which he reveals a fraction of the total quantity (not less than 10% of Total). On execution of the first reveal quantity the next lot of revealed quantity is displayed till the total quantity is exhausted.

Market Orders (Order type tag "M")

Market Orders, unlike limit orders, are orders to buy or sell a certain quantity of particular scrip **at the best price or prices prevailing in the market at that time**. The prevailing prices are called the Touchline prices.

Note: In Market Orders the rate of the order is not to be entered as the Order will pick the rate from the touchline i.e. Buy Market Order shall pick the touchline Offer Rate and the Sell Market Order shall pick the touchline Bid Rate. In case the Touchline Bid/Offer rates are not available, the Market Order would not be allowed to enter in the system due to unavailability of the rate from the touchline. An error message displaying "No touch for scrip" would be shown.

In an automated trading environment, there is a possibility that market orders may be executed at totally ridiculous rates, just because there are some opposite orders at this price. Consequently, it is necessary to protect all market orders by having a protection price. Therefore, a concept of Market Protection is provided in BOLT.

Market Protection: Market Protection is to be entered in %. It could be an integer or a decimal number (upto 2 decimals). The "protection price" would be calculated by the system every time a market order is placed. The protection

price would be fixed percentage of the touchline price, depending upon the categorization of that scrip, at the time the market order was placed. Presently, the default value for market protection is 1%, but the trader can change this for every order to suit his convenience till 0.01%. Traders are also permitted to enter 0% market protection.

For market buy orders, protection would be added to the touch-line offer price, and for market sell orders, protection would be deducted to touchline bid price. After attaching the protected price to the market order, this order would be executed like any other order.

It may be noted that market orders do not have a higher priority over limit orders, but since price is given the highest priority in the system, market orders would stand a better chance of execution than limit orders. The balance unexecuted quantity, if any, would be stored in the system as a limit order at the last traded price in the Pending Order Window.

Example:

Trading Member X(Clg. No.1) places a market order for buying 1000 shares of ABC Limited @ Market Protection of 1%. The touchline on his TWS, while placing the order is Rs.88 (bid) and Rs.90 (offer). At that point of time the Total Sell Depth of the scrip was 700 shares. The best offer was for 200 shares @ Rs.90 while the next best offer was for 500 shares @ Rs.90.80.

In this case, the protection price would be Rs.90.90 i.e. Rs.90 (being the touchline offer price) + 1%. The Trading Member X (Clg. No.1) market order would get executed as under:

200 shares @ Rs.90 and 500 shares @ Rs.90.80.

Since there are no more offers, the remaining 300 quantity will be stored at the Bid (Buy) rate of Rs.90.80, which is the Last Traded Price.

New Market Orders (Order Type tag "G")

"New Market" orders are same as Market Orders, but unlike Market Orders, the matching/ opposite rate is taken at the exchange, as soon as it reaches the exchange. The prevailing prices are called the Exchange Prices.

In an automated trading environment, there is a possibility that market orders may be executed at totally ridiculous rates, just because there are some opposite

orders. Consequently, it is necessary to protect all "New Market" orders by having protection price. Therefore, a concept of Market Protection is provided for this type of orders also.

IOC (Immediate or cancel) Orders (Order Type tag "C")

This is a variation of the New Market orders. It allows for faster order execution without cluttering up the limit order book. Minimum fill/rest kill is a facility provided for quick order execution. To make a quick deal, select and enter the quantity and minimum fill quantity. Click on the IOC button with Buy/Sell option button selected as per the requirement. The order will be matched at touchline price (exchange price) to a quantity available in the market. The unexecuted quantity of the order will be killed. The traders are not allowed to enter rates for IOC orders. Here user has an option to add market protection for more flexibility and control.

ODD Lot (Order Type flag "O") Orders (Function Key: [Control] + [F7])

As per SEBI guidelines, with a view to provide an exit route to small investors holding physical shares in the scrips mandated for compulsory demat deliveries, BSE has put in place a system which allows small investors to trade in these scrips in odd lot segment. However, this facility will be restricted to 500 shares. The delivery orders for such trade would be generated on a **Trade to Trade basis** (*i.e. there will be no netting allowed in any of these trades and every trade will have to necessarily result in Delivery*). Only registered holders of the shares can avail of this facility. The price offered by the buyers in the odd-lot window for a scrip is generally less as compared to the prevailing market price of that scrip in the rolling settlement (*i.e. demat shares*).

The odd lot orders are executed on grab mechanism. Members have to invoke Odd-lot Grab window (*Function Key: Control + F7*) to grab the odd lot orders available in the system. Members cannot enter exact market lot quantity but multiples of market lot quantity is allowed.

Note: The Trader will have to invoke the Odd Lot Icon and select the scrip in which he wants to deal. All the pending odd lot Bids and Offers in the scrip will be shown in the separate box. Facility of sorting all the bids/offers orders is available based on the Quantity and Rate. It is possible that the same quantity of the scrip is offered by same/various Traders at different rates. The Trader will have to choose and grab the opposite order for execution of the transaction *i.e.* if he wants to sell odd lot he will have to grab the buy odd lot order from the various pending buy orders and vice versa.

Odd Lot Orders can also be loaded from a Batch file. For this, Order type of the record in the file should be 'O'.

FIs/FIIs are not allowed to participate in Odd Lot segment. The procedure for entering the odd lot order is stated below:

- i) The trading Members will have to enter their odd lots orders through the main Order Entry Screen by pressing the Odd-Lot pushbutton. However, incase they want to accept the Counter party order they will have to go to the Odd Lot window and grab the Counter Party Order.
- ii) BSE has provided facility to the investors for trading in the Right Renunciation Forms through this window. Trading in the right renunciation forms is permitted on BOLT system from the date of opening of the Right Issue and it is suspended three day's prior to the closure of the Right Issues (please refer to the notice issued by the Department of Corporate Services in this regard).

Block Deal Orders (Order type flag "K")

This Order facility is being provided to the Traders based on SEBI specifications (refer Exchange Notice No. 20051108-28 dated the November 8, 2005), which are stated below:

- i) **Execution Time:** The traders will be allowed to enter the Block Deal Orders only during the first 35 minutes of the continuous trading session (i.e. on normal trading days the time for entering Block Deal orders will be from 9.55 a.m. to 10.30 a.m.), **And**
- ii) **Order Size:** The minimum Order size should be either:
 - a) 5,00,000 shares or
 - b) Rs. 5 Crore Order Value **And**
- iii) **Restricted Price Band:** The Block Deal order entered by the Traders shall be valid only if the Order rate entered by them is within +/-1 % of the Last Traded Price/Previous Day's Closing Price of the scrip. **And**
- iv) **Order Matching Logic:** The Block Deal Buy/Sell Orders entered by the Traders shall go to the Common Block Deal Order Book and shall be matched against the opposite counter Buy/Sell Block Deal order (as the case may be) for same quantity and same rate.

Note: The Exchange vide its Notice No. 20051108-29 dated the November 8, 2005, have cast the responsibility on its Trading Members for uploading the client details (Deal Date, Scrip Code, Scrip Name, Client Name, Buy or Sell flag, Trade Quantity, Trade Price) thru Data Upload Software ("DUS") of all the Block Deal Transactions executed by them.

Basket Orders (Order type flag "B" - Function key: [F11])

The Exchange has initiated trading in Equities, enabling the market participants to create Sensex linked portfolios and also to establish a linkage between Cash and Future market prices by launching futures trading on Index (BSE Sensex), where futures trading is done in three monthly series at any point of time. The BSE Sensex reflects current price movement of 30 underlying shares based on which the pricing of Sensex Futures contracts is done.

Basket Trading will facilitate Traders to enter orders in a set of scrips (e.g. SENSEX scrips or user defined scrips) in a single order. Once an order is placed in the basket entry screen, the orders will follow the path of Market Orders.

PROFILING OF BASKET (Function key: [F10])

The Basket Trading System allows the Traders to create their own baskets in Basket Profiling window or by pressing [F10] key. The features for creating profiled baskets are as under:

- a) In terms of profiling, the System allows for deleting certain scrips from the total Sensex Basket of 30 scrips or allows him to create his own basket.
- b) In case of profiled baskets (e.g. SENSEX), the calculation of the Value (V) would be the product of the Sensex Value at that point of time multiplied by 25. Therefore, in case of profiled baskets also, the minimum investment required for buy or sell of one lot would be equal to a full Sensex Basket of 30 scrips.

Incase, the trader wants to profile a basket by directly entering value of the basket (Sensex or user defined) the minimum value of the basket should be Rs.50, 000/-.

- c) The system would also allow profiling of weight of scrips in Sensex.

For user defined basket (other than Sensex) the Trader will have to enter the value of the basket and will also have to assign the individual scrip weightages.

- d) Whenever the Trader creates a Basket, the system will take the default Sensex weights for the specific scrip. Traders have the option to give their own weights,

which may or may not equal to 100%. Such adjustment of weights is explained by way of the following example:

Total Selected Scrips in the Profile baskets: 5

Sum of weights of these 5 profiled basket scrip: 60%

It may be noted that since the Trader has deleted 25 scrips out of 30 Sensex Scrips, the weights of selected 5 scrips stand at 60% of the entire Sensex Basket Value.

However, Traders cannot enter the weights exceeding 100%. Trader can profile his basket less than 100% of weightage. Profiled Baskets are stored in a file with extension *.BKTfile.

FACILITY OF ENTERING BASKET VALUE IN BASKET ENTRY

Trader can place order for buying/selling basket by entering the number of baskets on the Index basket order entry. The value of one Sensex Basket is arrived at by multiplying 15 to the prevailing Sensex.

The Trader can place basket orders by entering the value of the basket orders. The system will automatically calculate the number of baskets and display the same. Basket quantity will also be accepted in fraction.

The formula for calculating the basket quantity and value is given as under:

$$\text{Basket Qty} = \frac{\text{Basket Value (Entered by the Trader)}}{(\text{Current Sensex} * \text{Multiplier} * (\text{Total weightage of the basket}/100))}$$

For e.g. If the Trader puts Basket Value = 478369.90 for a basket with 96.77% total weightage with current Sensex Value = 3050, the basket quantity will be calculated as under:

$$\text{Basket Quantity} = 478369.90 \text{ divide by } (3050 * 25 * (96.77/100)) \text{ Basket Quantity} = 10.81.$$

Actual quantity for scrips will be rounded off to the Market Lot.

Pending Orders: The pending orders in a basket will be converted into Limit Orders and shown in the pending order window with suffix "B".

Validity of Orders: Orders in Index Baskets would be valid only till the end of the day. After end of the day, pending orders will be returned to the Traders.

Killed/Rejected Order: The Orders in a basket, which do not get an opposite touchline bid/offer rate (as the case may be), are killed.

Risk Management: The trades executed under the Basket Trading system would be subject to the same margining system like other orders (i.e. upfront blocking/release of Value at Risk Margin (VaR) and Extreme Loss Margin (ELM), MTM and Special Margin (if any)).

How to Square Off/Repeat a Basket Order: A basket order that has to be squared off must be saved. To do so user may choose the Basket Order ID in the Basket entry screen and Press "Save". The entire basket order will be saved in the batch upload for orders format (Market orders) with a ".bkt" file extension. Thus all orders within the basket order will be saved as individual market orders. This file may now be loaded from the batch upload for orders screen.

Viewing Basket Orders: A basket order can be viewed and the information regarding the basket order is stored in BktOrd file.

Stop Loss Orders (Order type flag "P")

To minimize the loss of the investor, the BOLT system provides a mechanism, which is called as 'Stop Loss' orders. Suppose, an investor/Trader has bought some shares of a company at some price and later on he was watching other scrips. Suddenly the price of the Scrip, he has bought starts going down and the Investor/Trader is not aware of this as he is occupied in watching other scrips. In that situation the Investor/Trader will suffer a loss. The said Investor/Trader doesn't want to suffer a loss of more than "Rs.x" per share. BOLT system provides a facility whereby the Trader/Investor can put a Stop Loss Order (opposite order- in our example sell order) immediately on execution of its buy order.

The modalities of entering the Stop Loss Order and its functionality are discussed below:

Stop Loss Order Entry (Function Key: [Control] + [F11]): While entering Stop Loss Orders, you will have to enter 2 prices - the Trigger price and the Limit price. In case of a buy stop loss order, Trigger price must be less than or equal to the Limit Price. In case of Sell order, Trigger price must be greater than or equal to the Limit price.

The buy stop loss orders will be activated when the "Last traded price" of the scrip becomes equal to or greater than the "Trigger Price" of the stop loss order.

The sell stop loss orders will be activated when the "Last traded price" of the scrip becomes equal to or less than the "trigger Price" of the stop loss order.

These orders get activated in the order of Trigger price and time stamp.

The un-triggered stop-loss orders can be removed/changed. After getting triggered, these orders are converted into normal orders and are displayed in the pending order window. These can be changed or removed in the same way as normal pending orders. The trades executed against the stop-loss orders, can be viewed from the saudas screen.

For entering a Stop Loss Order into the system:

- 1) Press ([Control] + [F11] key) to activate the Stop Loss Orders Entry Window.
- 2) Trader can put Stop Loss Order through Fast Entry (Fast Entry facility is for Single Record Upload).
- 3) The Order of the fields in this window is B/S, scrip, Total Qty, Revealed Qty, Trigger rate, Limit rate, Client ID.
- 4) The pending stop loss orders will be shown in the same stop loss window.
- 5) Returned Stop Loss Orders (Function Key: [Control] + [F12]): This window will display untriggered / returned stop loss orders.

Note: Triggered returned stop loss orders can be viewed along with normal returned orders in the Returned Orders window.

7.6.6. Orders handling

Both Limit and Market Orders will be entered into the Order book. IOC order on the other hand would not flow through order book.

Orders may be modified or cancelled at any time. Any modification would mean a new time stamp, and hence the order would lose its earlier time priority. In a modified order the fields Total Quantity, Rate and Client ID can be updated. The priority for standing orders in the order book will be based on:

- 1) Price
- 2) Within Price - on Time Priority basis.

7.6.7. **Circuit Filters/Price Band for Scrips:** SEBI has prescribed circuit filters/price-bands of 20% for all

the scrips except for scrips which are forming part of SENSEX or NIFTY or on which derivative products are available or those scrips which are part of the any Indices (on any Exchange) and on which derivative products are available.

It means that the price of the scrip can move up or down maximum 20% in a day as compared to its previous day's Closing Price. For e.g. the price of scrip ABC Limited had closed at Rs. 100/-yesterday. The Upper Circuit-Filter limit and the Lower Circuit-Filter limit for this scrip will be Rs.120 and Rs.80, respectively. All orders entered by the Trading Members which are above the Upper Circuit-Filter Limit and the Lower Circuit-Filter/Limits will be rejected by the BOLT system.

Note: In case the Upper and lower circuit filters for a scrip are not shown in the Market View Picture Window (refer "Order Entry Window") those scrips are not having SEBI prescribed circuit filter band. However, to avoid any erroneous orders to enter the BOLT system and getting executed which may also disturbed the market equilibrium, the Exchange has introduced concept of "Dummy Circuit Filters" of 20%. The Exchange Surveillance Officers continuously monitors the price movement of the scrips which are having Dummy Circuit filter limits and they relax the same further by 20% in the same direction once the scrip has reached 'x%' to their Previous Day's Close Price. The Exchange (BSE/NSE) which relaxes the Dummy Circuit Filters of the scrips on their Exchange has inform the other Exchange so that the other Exchange can also relax the dummy circuit filters for that scrip to avoid any price arbitrage situation. If Member buys a particular stock on one Exchange and sells the same on another Exchange on the same day it is called as Arbitrage.

7.7. **MARKET WIDE CIRCUIT BREAKER/INDEX BREAKER (MARKET HALT)**

Automatic Sensex Halt:

It has been decided as per SEBI circular Ref. No.SMDRPD/Policy/Cir-37/2001 dated the June 28, 2001, to implement index based market wide circuit breaker system, which will apply at three stages of the Index movement either way at 10%, 15% & 20%. These circuit breakers will bring about a coordinated trading halt in all equity and equity derivative markets nationwide.

The modalities of market halt are as under:

Movement of either BSE SENSEX or the NSE S&P CNX Nifty whichever is breached

earlier would trigger the market wide circuit breakers.

In case of 10% movement of either of these indices, there would be a 1-hour market halt if the movement takes place before 1 p.m. In case the movement takes place at or after 1 p.m. but before 2.30 p.m. there will be a trading halt for *Vi* hour. In case the movement takes place at or after 2.30 p.m. there will be no trading halt at the 10% level and the market will continue trading.

In case of 15% movement of either index, there will be a 2-hour market halt if the movement takes place before 1 p.m. If the 15% trigger is reached on or after 1 p.m. but before 2 p.m. there will be a 1 hour halt. If the 15% trigger is reached on or after 2 p.m. the trading will halt for the remainder of the day.

In case of a 20% movement of either index, the trading will be halted for the remainder of the day.

Note: The percentages are calculated on the closing index value of the quarter. These percentages are translated into absolute points of index variations (rounded off to the nearest 25 points in case of SENSEX). At the end of each quarter, these absolute points of index variations are revised and made applicable for the next quarter. The existing set of Sensex levels to trigger market halt is maintained separately.

IMPORTANT POINTS:

No limit order or market order allowed when market is at halt.

A limit order put into the system before the market halt & not matched, will be shown as a pending order. If a market order is executed only partially before the market halt, the unexecuted part of the market order will be shown as pending limit order at the last executed price, during the market halt.

During the market halt the pending orders can only be deleted, they cannot be modified.

There would not be any change in the algorithm to calculate the closing price of a scrip for the day.

If the Market halt is triggered at more than 2 levels, or at all the levels & the last trading continuous session has been, for less than 30 minutes, then, for the closing price calculation the weighted Average of the price of the scrip in the last continuous session will be the closing price for that scrip.

Restart of the market, after the market halt will not be considered as new session. The touchline would be frozen during the market halt. 14

The Sensex Graph will be frozen for the time period of the market halt. The day's Sensex graph would show breaks for market halt.

A ticker message would be sent stating the details of the market halt.

7.8. Market Access Trading Sessions : The market would have the following sessions:

7.8.1. Logon Session: 8.45 a.m. to 9:00 a.m.

Trading Members can LOG ON during this session and can download various trading related information, similarly, can prepare the batch of orders for speedy submission at the start of the Trading session.

During this session the Trading Members are not allowed to enter orders in the BOLT system. Trading Members can do the batch upload of orders during this session. However, the batch submission of these orders can be done only in the continuous trading session. Trading members/traders can also download the BRK (consolidated tradelog i.e. trades from various TWS's can be downloaded by the Trading Member), TRD files (tradelog file can be downloaded by the trader from his TWS pertaining to his TWS) of the previous 5 settlements and the Auction files can be downloaded for the previous 25 settlements.

7.8.2. Pre-opening Session: 9.00 a.m. to 9:15 a.m.

7.8.3. Continuous Trading Session: 9:15 a.m. to 3:30 p.m.

During this session, all types of orders are allowed to be entered into the system and the traders can carry on all their trading activities. The trader receives confirmations of the orders entered as well as trades executed by him and can also view the net position on both scrip-wise and client-wise. The ticker facility in the BOLT provides market sensitive information as and when received from the sources. The BSE SENSEX is calculated at every 15 seconds and is broadcasted on TWS as well as to the Derivatives system of the Exchange. The rate of the scrip is determined by the market forces based on the demand and supply.

Kindly note: Block Deals orders are allowed up to initial 35 minutes of the continuous trading session (i.e. from 9:15 a.m. to 9:40 a.m. during normal trading timings).

7.8.4. Closing Session: 3:30 p.m. to 3:40 p.m.

In this session the Trading Members will not be allowed to enter any orders. The closing price of scrips is computed during this session as per the computation logic. At the end of the session, the computed closing price of all the scrips traded on BOLT system in the continuous trading session is displayed on the Touchline window of TWS and it also displayed in the Market View (scripwise) Screen (on pressing of "Refresh" pushbutton in the Order Entry Window).

The closing price of all the traded scrips will be calculated based on:

- a) The weightage average price of all the trades in last 'N' minutes for that scrip. The current 'N' value in the BOLT system is '30' minutes or
- b) If there are no trades in last 'N' minutes in that scrip, then the last traded price would be taken as the official closing price or
- c) If the scrip is not traded on that day, the previous day's closing price of the scrip shall be treated as the Closing Price.

7.8.5. Post-Closing Session: 3:40 p.m. to 4:00 p.m.

This session is held after the closing session. The Trading Members can enter only Limit Orders at Closing Prices declared by the Exchange. Any order other than those at closing price would not be accepted. The trader has to enter Retention flag as EOSESS for order. All the unmatched orders are return at the end of the session.

Only during the Post Closing Session the Trading Members are:

- i) Allowed to do rectification of **erroneous Client Codes** entered by them while entering orders and which had resulted in trades.
- ii) Allowed to rectify the **wrong "institutional id" (i.e. client type)** which they have marked while entering orders in the BOLT System. Note:
 - 1) Both the above rectification can be done through Saudas (i.e. Trades View) Window.
 - 2) The Trading Members are **only** allowed to change the "institutional id" from "Institutional" Category (i.e. "FII", "FI", "Bank", "Ins" and "MF") to "Non-Institutional" Category (i.e. "Client", "Own" and "NRI") and not vice-versa.

7.8.6. Member Query Session: 4.00 p.m. to 5.25 p.m.

In this session, the system **generates member-wise, trader level reports**. In this session trading members are allowed to download the break-up of trader-wise positions. Member-Query window is a function provided in the main menu. This window displays the trades of all the traders executed during the day. Members download the TRD & BRK files. TRD file containing the trades executed from that particular TWS (Trader Work Station) can be downloaded by the traders if allowed by the ADMIN Terminal. Only Trader 1 is authorized to download the .BRK file during Member Query session. This can be done by clicking on the "BRK"(Shift+F10) icon.

When all the trades are downloaded, a check is initiated to detect any error in download trades. A warning message is displayed in case of an error and query message is displayed in case of an error and query would have to be reinitiated. If all the trades are downloaded successfully, a message is displayed indicating the file in which the data has been stored.

The file is created in the Export sub-directory and is in the binary format. The Exchange provides WINPRN utility to convert the downloaded data from Binary to TXT/DAT format. **Member Query is normally allowed from TWS No.0**. However, at the discretion of the Trading Member, he can allow this facility to any other TWS.

Note:

- i) Please note that trader/Trading Member are allowed/disallowed certain functions on their workstation based on the session you are in.
- ii) **6A/7A Window (Function Key: [Control] + [F8]) Transfer of client's Obligation to the Custodian:** BOLT has provided online entry/confirmation facility to trading members/custodians for transfer of client's obligation from Trading Member to the Client's Custodian. This facilitates the Trading Members to transfer the settlement obligations of their clients to their clients Custodians. On acceptance of the obligation by the Custodians they will have to directly settle their client's obligations with the Clearing House of the Exchange (BOI Shareholding Limited -"BOISL") on Pay-in/Pay-out Day. This facility of transferring client's obligations to the custodian is called 6A/7A in BOLT system.

Trading Members are allowed to enter the 6A/7A entries and custodians to confirm the same in all the above sessions on the T Day (i.e. Trading Day) except

during the Closing Session. The Trading Members can modify the unconfirmed 6A/7A entries upto 11:00 a.m. on T+1 day while the Custodians can confirm the 6A/7A entries upto 1:00 p.m. on T+1 Day. Batch upload facility for entering/confirming at Trading Member/Custodian end is also provided in the BOLT system. BOLT provides viewing and saving of confirmed/unconfirmed 6A/7A entries both at the end of the Trading Members and Custodians.

As per SEBI mandate all the institutional clients are required to settled their obligations thru the Custodians. In case the Custodian doesn't confirms a 6A/7A entry the obligations for settlement of transaction will remained with the Trading Member. For the unconfirmed 6A/7A entries the Trading Member is penalized as per Notice No. 20050914-19 dated the September 14, 2005.

iii) Session timings are subject to change by BSE. Generally, the session timings are changed during the Sun-Outage period or the Exchange is conducting special Trading Session on Muhurat Trading Day (i.e. Diwali Day) or conducting Trading Session from its disaster site.

7.9. BOLT Screen

| ICON | Function Key | Function |
|---|--------------|----------------------------------|
|  | F1 | System Access (Logon and Logoff) |
|  | F2 | Touchline |
|  | F3 | Order Entry |
|  | F4 | Pending Orders |
|  | F5 | Returned Orders |

| ICON | Function Key | Function |
|---|---------------|--------------------------|
|  | F6 | Fully Executed Orders |
|  | Control + F11 | Stop Loss Entry |
|  | Control + F12 | Returned Stop Loss Entry |
|  | Shift + F1 | Saudas (Trades View) |
|  | Shift + F2 | Batch Orders |
|  | Shift + F6 | News |
|  | Shift + F7 | Index |
|  | Shift + F8 | Change Logon Password |
|  | Shift + F9 | Net Position (Scripwise) |
|  | Alt + F3 | Net Position Clientwise |
|  | Shift + F10 | Broker Query |
|  | Shift + F11 | Online Printing |
|  | Shift + F12 | Scrip Profile |
|  | Control+F1 | Scrip Help |
|  | Control + F3 | Offer Entry |

| ICON | Function Key | Function |
|---|--------------|---|
|  | Control + F4 | Pending Offer |
|  | Control + F5 | Batch Offer |
|  | Control + F6 | Auction Reports |
|  | Control + F7 | Grab Oddlot |
|  | Control + F8 | 6A/7A Entry |
|  | Control + F9 | Trade Limits |
|  | F11 | Basket Entry |
|  | F10 | Basket Profiling |
|  | Alt + F1 | Broker Query/Trades/Order Log File Download |
|  | Shift + F4 | Client Registration |
|  | F7 | Quote Entry (Disabled) |
|  | F8 | Returned Quotes (Disabled) |
|  | F9 | Batch Quotes (Disabled) |
|  | Control+ F10 | Online Help |
| | "+" key | Order Entry(with 'Buy' selected) |
| | "-" key | Order Entry(with 'Sell' selected) |
| | Alt+Space+L | Lock Workstation |

7.10. System Access (Logon and Logoff) - (Function Key: [F1])

On clicking Login ICON or pressing function key (F1) in the BOLT application, the following icons appears on the TWS:

Member ID: ****

Trader ID: ***

Password: *****

In Order to Logon to BOLT system, the trader must specify a valid Trading member ID, Trader Id (allotted to the trader by the Trading Member) and the corresponding password. A valid combination of Trader ID, Trading Member ID and password is needed to access the BOLT system.

Member ID: The Exchange assigns a Trading Member ID to each Trading Member. The Trading Member ID is unique and functions as a reference for all orders/trades of different traders. This ID is common for all the traders of a particular trading member. The Trading Member ID and Trader ID form a unique and valid combination.

Trader ID: Each Trading Member can have more than one trader/user. The number of users allowed for each main trading member is notified by the Exchange from time to time. Each Trader of a main Trading Member must be registered with the Exchange and is assigned a unique Trader ID. The trader IDs are allotted depending on the connectivity viz. 1 to 200 for TWS users, 200 to 300 for IML users and 600 to 700 for internet based traders.

Password: When a trader logs in the BOLT system he has to enter a password. Password of Trader is set by the Admin Terminal.

The Trader can use this password only once for log in and system forces the trader to change the password before commencing any other operation. Strict security features are built in the system to protect any misuse. The password appears in encrypted form and the complete secrecy is maintained. The system ensures the change in password for all users periodically (password expiry period is parameterized by the Exchange) which is set 15 days.

■ **BSE Password Standards:** BSE has set certain standards for entry of passwords and these have to be followed by the Trading Members.

Minimum 8 characters (maximum of 10) Alphanumeric (one numeric and one alphabet is mandatory). Password cannot be same as the last 8 passwords. Further, passwords cannot be null or contain blanks.

Change on Logon Password (Function Key: [Shift]+ [F8]): To change the logon password at any point of time the trader will have press [Shift] + [F8] or click on the Change on Logon Password icon.

Logoff: For exiting from the BOLT system press [F1] function key (i.e. System

Access) and fill in the requisite details such as "Broker", "Trader" and "Password" and then click the "Log off" button.

7.10.1. **BOLT TWS LOCK (Function Key: Alt+Space+L)**

This facility will enable the Trading Member to leave his terminal (without logging off), by providing password control in the BOLT application. Trading Member/User can lock his terminal by choosing Lock Workstation option. A window pops-up indicating Workstation Locked. Password for unlocking TWS will be same as BOLT Log-on password for the specific terminal.

Locking of BOLT TWS on failed Logins: This facility has been incorporated in BOLT TWS to prevent unauthorized entry into the BOLT system. Every failed instance of login is stored in the log file and on the fifth attempt, the system will get locked and a message will be displayed to contact the Admin Terminal (TWS-0).

Admin Terminal has to reset the password for the user terminal, and then, the user can enter the correct password for logging into his terminal.

Once the correct password is entered, the password log is reset to capture only failed instances.

7.10.2. **Touchline Screen (Function Key: [F2])**

This can be used to monitor price movements of the scrips in the market. The Touch line can be profiled by the user. The touchline, by default, displays all the scrips and their details.

The touchline window will automatically get rewritten whenever an order or trade takes place. The user shall get to view the latest information. Double clicking on particular scrip on the touchline takes the user directly to the **"Market View (Scripwise) screen"** of that particular scrip.

The details provided in the touchline are Up/Down Arrow (Price Movement Indicator Last Trade to Previous Last Trade), ScripID, Bid Qty, Bid Rate, Offer Qty, Offer Rate, Open, High, Low, Close, Last Trade Rate, % Change (i.e. Last Trade Rate to Previous Day's Closing Price).

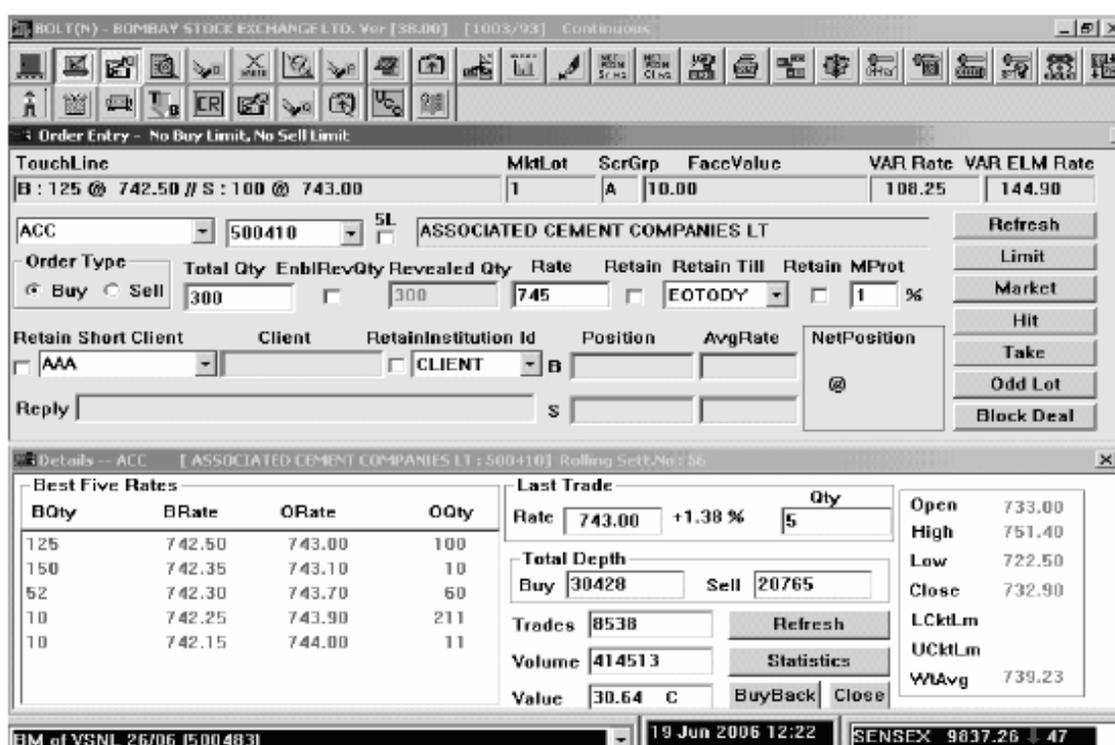
Another facility available in the touchline is that the characters 'ND' in the ND field indicate non-delivery of shares for that particular scrip. Note that the user should have the latest SCRIPMASTER for correct display of no delivery indication.

New facility has been provided to view Cash and near month Stock Future scrips information in the same touchline.

In case of orders, only the depth of the best buy and sell orders from the order book would be shown on the touchline, without identification of Broker.

7.10.3. Order Entry Screen (Function Key: [F3]) and Market View (Scripwise) Screen (Press "Refresh" pushbutton in Order Entry Window)

The Order Entry Screen & Market View (scripwise) screen is shown in the continuing picture:



A) **Order Entry Screen (Upper Part of the Screen):** The Trader will have to select the scrip by entering the Scrip Code "500410" or Scrip ID "ACC". On Pressing of Refresh Button the Market View Picture for that Scrip is displayed (refer bottom screen)

A) **Order Entry Screen (Upper Part of the Screen):** The Trader will have to select the scrip by entering the Scrip Code "500410" or Scrip ID "ACC". On Pressing of Refresh Button the Market View Picture for that Scrip is displayed (refer bottom screen). If the Trader wants to enter its Order in the BOLT System, the Trader will have to:

- i) Select Buy or Sell,
- ii) Enter desired quantity (mandatory field), revealed quantity (optional field)

- iii) Enter desired Rate (incase of Market, Hit and Take Order it is not required),
- iv) Select and change/not change the default "MProt %" (Market Protection Percentage -incase of market orders)
- v) Select "EOTODY" (Order Valid Upto End of Day-Default) or EOSESS (End of Session - Order is valid in the Current Trading System),
- vi) Enter the Client Code
- vii) Select the Institution ID (i.e Client Type - Client (Default)/Own/NRI/FII/FI/MF/Bank/Insurance), viii) Press the Order Type (Limit, Market, Hit, Take, ODD LOT, Block Deal).

Note: Basket Order can be entered in the system through the Basket Order Entry Window and ODD LOT can be grabbed through the ODD LOT Window.

Hourly Statistic pushbutton: To view hourly statistics, there is a Statistic pushbutton provided in market view (scrip wise detail) screen, which shows the details of the selected scrip hour by hour since start of trading. These details will include the time period, Open rate, Close Rate, High Rate, Low Rate, Quantity traded, Value (Turnover in rupees), and Average Rate during this time period.

Buy Back push button: All the Buy back orders can be viewed by clicking on the 'buy-back' pushbutton in the market view (scripwise) screen. All buy back orders available in the market are displayed in the Buyback window from where they can be refreshed by clicking the refresh pushbutton. The details shown in Buyback window are

- i) Buy Quantity and
- ii) Buy Rate.

Note:

- i) While watching Touchline Screen by pressing "+" sign key the trader will be invoking the Buy Order Entry for that scrip and by pressing "-" sign key the trader will be invoking Sell Entry for that scrip.
- ii) If you select the "5L" check box button then while entering scrip code for scrip, the Trader will not have to enter 5 lakh value of the scrip code i.e. he can simply entered "410" instead of "500410". Thus it acts a short key for selection of scrip code.
- iii) By clicking the button "EnbIRevQty", the user will have to disclose minimum 10% of the Order Quantity. In case the Traders order appears in the TOP 5 BEST BIDS

and OFFERS only 10% of the Trader Orders will be revealed to the market and on its execution the another lot will be displayed to the market till the quantity is exhausted.

- iv) The clicking the button "Retain M Prot" is relevant at the time of entering Market Orders (refer Market Order as discussed below).
- v) In case the Trader has mapped the short Client ID to Client ID and has intimated the same to the BOLT system, then the BOLT System will provide the facility to the Trader for either selecting the short client id or on entering of the short client id the Client Id shall be automatically displayed on the screen.
- vi) The Trader will have the trading details on Gross and Net Quantity basis along with the average rate for the transaction executed from its terminal.

B) Market View (scripwise) Screen (Press "Refresh" pushbutton in Order Entry Window)

On pressing of the Refresh pushbutton in Order Entry Screen the Market View picture for that scrip is displayed.

The screen would display, on a continuous basis, the under mentioned market related information for that scrip, which will help the traders in putting their bid/offer orders at their desired rate in the BOLT system.

Best Five Bids (Buy) Quantity and rate and Offers (Sell) Quantity and rate.

Last traded rate along with percentage change to the previous day's closing price and last trade quantity.

Total Depth Box will display:

- Total buy depth and sell depth (irrespective of rates).
- Total number of trades.
- Volume (Turnover in Quantity).
- Value (Turnover in Rupees).

The Extreme bottom right hand side box displays on continuous basis the under mentioned information;

- Open Price (the first trade price in that scrip).
- High Price (till that point of time).
- Low Price (till that point of time).
- Close Price (before the Closing session it displays the Previous Day's Closing Price and in the Post Closing Session it displays the Today's Closing Price).
 - The Lower Circuit Price (in case it is not displayed the scrip is not having circuit filters limit- however to avoid any market disruption due to erroneous order, the Exchange had kept Dummy Circuit filters of "20 %").
 - The Upper Circuit Price (in case it is not displayed the scrip is not having circuit filters limit-however to avoid any market disruption due to erroneous order, the Exchange had kept Dummy Circuit filters of "20 %").
- Unique Client Code

As per the SEBI directive, all the orders entered on the BOLT system will be accepted only if client code is entered. The client id has to be unique at the Trading Member level i.e. every client under a Trading Member, (Irrespective of the sub-broker) should have a unique client id.

Note:

Further, based on the SEBI directive (SEBI Circular No.MRD/DoP/SE/Cir-8/ 2006 dated the July 13, 2006), the trading members can enter the orders only for those clients who has got the "Pan No." from the Income Tax Department.

Trading Members is cast the responsibility of uploading the Unique Client Code ("UCC") details to the Exchange through BSE Webex.

The details pertaining to Unique Client Code are required to be preserved in the back office of the member for 5 years

Sensex and Sensex Future movement is displayed on BOLT main screen which

is updated on a continuous basis after 15 seconds. Company related market information is also displayed.

7.10.4. 6.5 Batch Upload of orders (Function Key: [Shift] + [F2])

This window is provided as a facility for quick entry of orders in a batch mode. The Trader may ideally use this function at the Logon Session, when he can batch up all his orders and submit them to BOLT system in the Continuous Trading Session. This saves valuable time of the Trader during the trading sessions. This facility the Trader can also use in the trading sessions. The maximum number of the orders that a Trader can submit is 500. The facility to upload the batch orders can be used even without logging on by the Trader, however he will be able to submit the batch orders only if he is logged on the BOLT system. There are 2 ways in which you can input orders in a batch:

- (i) Through screen entry of orders (known as "Fast Entry") and later submission,
- (ii) By loading a pre-created batch file into the BOLT System. 24

Note: In both the modes of Batch entry, the Trader has got the option to add more orders, modify/delete the uploaded orders before he presses the "Submit" push button.

7.10.5. 6.6 VIEWING PENDING ORDERS (Function Key: [F4])

Unexecuted orders and partially executed orders across all scrips are displayed in this window on Trading Member pressing the [F4] key.

The under mentioned facility is also provided to the Trading Members:

Pending Orders may be sorted Clientwise, Scripwise or Timewise. Filtering Criteria is provided to filter Pending orders list. Three text boxes Order Type B/S, Scrip Code/Id and Client Id have been provided for this purpose. The filtration takes place as the trader enters the value and tabs out of the text box. The filtration will be displayed instantly on the criteria entered. The trader may change the criteria as many number of times as he wishes and on each different combination the results will differ accordingly.

When the Pending Order Window is opened by selecting a scrip on the touchline then the same scrip id is shown in the Scrip Code/Id Text box of the Pending Order window and the pending orders are filtered accordingly. This functionality can be enabled or disabled according to the user's choice. The user has to select the **TLSEL** checkbox provided in the pending order window to enable it. If user does not select this check box then invocation of pending order window will show all the pending orders for that trader.

By default this functionality will be disabled. User has to reopen the pending order window to see the effect of change in TLSel option (from Check to Uncheck or Uncheck to Check).

Type Of Order (Buy or Sell) Only: This will show all pending buy orders or sell orders according to the value given for this field (B-Buy/S-Sell).

Scrip Code Only: In case the trader had entered the Scrip Code/Id only and other fields are left blank in that case the Pending Order Window will show all the pending orders of that particular Scrip irrespective of the other filtration criteria. As the Client code field is Empty, it means that all the orders should be shown without considering client code and Buy/Sell. Pending Order window will be empty if there is not any order with the Scrip Code/Id entered.

Client Code Only: When the trader had entered the client code and had left others fields blank, this will show all the pending orders that match the Client Code entered by the trader. Pending Order Window will be empty if there is not any order, which matches for the Client Code.

All Fields are entered: In case the trader had entered all the fields with the specific values for Buy/Sell, Scrip code/ID and Client ID. The results displayed will contain those records, which fulfill all these three criteria. If the entered details do not match then the pending order window will be empty.

No Criteria Selection: A trader can keep all the options blank and in that case all the pending order records in the list are shown in the pending order window.

Type % Match: A trader can type in the first few characters of the client id or scrip id or scrip code followed by "%". This will match all those records, which start with those characters and they are displayed in the pending order window. For eg: 5001% will display all pending orders of scrip which starts with 5001.

Scroll through the window to see all your pending orders, if it is not viewable in the current screen.

From the pending order window the trader will be able to update/delete its pending orders in the BOLT system.

Below the list of pending orders, you will see some blank fields. The fields which can be updated are Total Qty, Revealed Qty, Rate, Retention status and Client Id.

7.10.6. Viewing Returned Orders (Function Key: [F5])

Returned orders are pending orders that are returned to the Trading Member, and it may be viewed in the 'RETURNED ORDERS' window, by pressing [F5] or clicking upon the Returned Order icon with the mouse.

Orders submitted by the Trader on the BOLT system maybe returned due to any of the following reasons:

1. Scrip or company is suspended after the order has been entered
2. Member or trader has been suspended after the order is entered
3. Unmatched orders with retention status EOSESS of the continuous session. This window has a single function pushbutton [RESUBMIT].

A save option has been provided in the System Menu of Returned Order window. The trader will have to click on the top left hand corner of the Returned Order window to save the file. The orders, which are returned, should be saved with extension "*.DOT" in the boltntsbtd directory. The file saved will be in the same format as that of batch upload file. The orders can be resubmitted from batch upload option.

7.10.7. VIEWING FULLY EXECUTED ORDERS (Function Key: [F6])

Fully executed orders can be viewed by Trader clicking on Fully Executed icon or pressing [F6]. The orders which are fully executed will be displayed in this window.

The orders are displayed in the reverse chronological order i.e. the latest executed order appears top of the list.

In Fully executed orders window the Trading Member can view the details like B/S, Scrip, Executed quantity, Average rate, Client id, Time, order id and institutional id is displayed.

A save option has been provided in the System Menu of Returned Order window. The trader will have to click on the top left hand corner of the fully executed window to save the file. The orders, which are fully executed, should be saved with extension "*.ORD" in the boltntsbtd directory.

7.10.8. TRADE CONFIRMATIONS (SAUDAS) (Function Key: [Shift] + [F1])

It displays all the trades that have been executed by the Trader till the current time (in descending order). Trading Members/trader has got the option of viewing trades based on client-wise, scrip-wise or time-wise or by Order Id. Further the Window also displays

the total of the Trades Count based on the filtration selected by the Trader.

Asave option has been provided in the System Menu of the Saudas window. The trader will have to click on the top left hand corner of the Saudas window to save i) Normal trades file and ii) Oddlot trades file.

The Trading Member can view/save all the Trades executed from its various TWS's from its ADMIN Terminal.

NOTE:

- 1) *Rectification of Client Code and Institution ID: The facility for changing the Client Code and Client Type Rectification is provided in this Window. Only during the Post Closing Session the Trader will be able to modify the erroneous Client Code/Type entered by him at the time of entering orders in the BOLT system.*
- 2) *A control has been provided in the Admin Terminal facilitating the main member to control the Trader who can be permitted to perform the Client Code & Institution ID rectification activity. If the control is checked then both types of rectification will be allowed and if not, none will be allowed.*

7.10.9. Online Printing (Function Key: [Shift] + [F11])

In case a Trading Member has a printer connected to his TWS, he can also take a print out of deal confirmation immediately. Trading Members could view their confirmed deals for the day at any time.

7.10.10. PROFILING (Function Key: [Shift] + [F12])

The BOLT system allows the trader to *configure the details appearing on the screen* in a format suitable to him/her. The function allows the flexibility of changing the screen formats to suit one's style. Moreover, the trader will be viewing only the information that he is interested in. If these functions are not used to set the profile, the BOLT system will display information according to the default settings. These functions can be used any time in the day.

A) Scrip Profiling

The trader may select the scrips that he would like to view on his touchline window through profiling. These are the scrips that the trader is interested in or scrips that he

would like to monitor in the market. The scrips can be selected either by way of Scrip-ID or Scrip Code.

The BOLT system displays the master list of all scrips available in the Scrip Master and also the default scrip profile. The trader may then select/deselect scrips as required and save them in a file (scrip file). This file can be loaded any time including trading hours.

The BOLT system requires that this setting be read from a file called 'default.spr'. If the user has saved his profile as some other name & he wants it to be the new scrip profile, then would have to use the "SAVE DEF" option to save it as 'default.spr'.

Certain profiles have been created and loaded in boltntbst folder. This has been done to facilitate trading members to get a specific profile without actually creating it.

B) Column Profiling

This option gives the trader the facility to select only those columns, which he wishes to view in a window. He can also select which column should be first, which next and so on. The order in which the user selects the columns will be the order in which they will be displayed on the screen. Currently the trader can only profile the Touchline window.

The BOLT system requires that this setting be read from a file called 'default.clp'. If the user has saved his profile as some other name & he wants it to be the new column profile, then would have to use the "SAVE DEF" option to save it as 'default.clp'.

C) Color Profiling

This option allows the trader a wide range of color settings for different windows and screen elements within each window. The BOLT system requires that this setting be read from a file called 'default.cpr'. If the trader has saved his profile as some other name & he wants it to be the new color profile, then would have to use the "SAVE DEF" option to save it as 'default.cpr'.

Profile of the windows would be frozen for reuse when the user log off from BOLT and the same profile should be restored when he again logs on in BOLT.

D) Alerts

If the last traded price of a scrip fluctuates beyond a certain range, the trader may need to be informed. The BOLT system gives the added flexibility of setting these and other alerts and warning messages in BOLT. The trader can also set order deletion confirmations to be OFF or ON.

This facility has 2 components:

1. Alerts
2. Confirmation

The 'Alerts' components has these settings

- 1) Last Trade less than
- 2) Last Trade greater than

Example:

If the scrip rate falls below Rs.2000, the trader may wish to be alerted. So set the value of 'Last trade less than' to 2000. Similarly, if the rate exceeds Rs. 3000, the trader may wish to be alerted. So set 'Last Trade Greater Than' to 3000. In effect, if the scrip rate lies between 2000 and 3000, the alert is not activated.

The 'Confirmations' component would give a confirmation "Y or N" when the trader deletes an order from the pending order window.

This option can be set "ON or OFF".

Note: Each of the options on this screen (Alerts and Confirmations) is scrip-wise i.e. for each scrip you may select all the options mentioned above. You may set 'Order Deletion' to 'Yes' for say 'GRASIM' and set 'Order Deletion' to 'No' for a lowly traded scrip.

7.10.11. **ADMIN TERMINAL**

TRADE LIMITS (Function Key: [Control] + [F9]) - RISK MANAGEMENT FEATURES IN THE ADMIN TERMINAL

Taking into consideration the expansion of BOLT all over India & the necessity of the main Trading Member to monitor risks of the traders under him, the following controls are provided in the Admin Terminal for trade security purpose. The Admin Terminal is TWS 0, which can be used to manage all other terminals. The Admin Terminal cannot be used for Trading. The admin terminal receives the online trades.

TRADING MEMBER FROM ITS TWS NO. 1 CAN SET FOLLOWING CONTROLS FOR TRADERS UNDER HIM:

- Allow Odd-Lot Trading / or not
- Allow Basket Trading / or not
- Allow Client Registration facility / or not
- Allow Stop-Loss trades / or not
- Allow 6A/7A trades / or not

Allow Auction / or not

Allow Member Query / or not (It is allowed only for TWS 0 and 1)

Allow Client Rectification facility / or not

Allow Block Deal / or not

OTHER FUNCTIONS

Unrestricted Trading Rights Compulsory Scrip Master

Trader wise limits:

- **Gross Buy:** specifies the gross buy value of all scrips.
- **Gross Sell:** specifies gross sale value of all scrips.
- **Default Buy:** specifies the Buy Quantity limit for all those scrips for which no limit has been set.
- **Default Sell:** specifies the Sell Quantity limit for all those scrips for which no limit has been set.
- **Max Quantity:** specifies the maximum allowed quantity per Order. Any Order that exceeds this value for that trader will be rejected.
- **Max Value:** specifies the Maximum value allowed for each order. Orders exceeding this value will be rejected. i.e. a buy position in scrip 1 can be netted off with a sell position in scrip 1 but cannot be netted off with a sell position in scrip 2 for calculation of Net Value.

1. Net Value Control on Admin Terminal: The algorithm for the Net Value Computation will be as follows:

Net Traded Position equals (Gross Purchase - Gross Sell)

- On request to add a Buy transaction, the system will take sum of all pending buy order and will arrive at the net traded position (Gross Purchase - Gross Sell + Pending buys = Net Potential).
- On request to add a Sell transaction, the system will take sum of all pending sell order and will arrive at the net traded position (Gross Purchase - Gross Sell - Pending Sell = Net Potential).

- The absolute of the Net Potential will not cross the Net Value Limit set by the Trading Member for every trader.
- The system will consider all types of Orders including Limit, Market, Hit/Take, Stop Loss, Grab Order, Basket Order and Block Deal Order.
- If Basket Order is exceeding total Net Value, the Basket Order will be rejected.

Example: The limits set by the trading member and positions prevailing at the time of entry are as under:

| Description | Set Limits in |
|------------------|---------------|
| Gross Buy Limit | 4,00,000 |
| Gross Sell Limit | 5,00,000 |
| Net Value | 2,00,000 |

Positions in the System:

| Traded Position | | | | Net Traded Position | Pending Position | |
|-----------------|-----|--------|-------|-----------------------------|------------------|-----------|
| ScripCode | B/S | GP | GS | Current Net Value (GP - GS) | Pending Buy | Pend Sell |
| 500209 | B | 40000 | 0 | 40000 | 10000 | 0 |
| 500325 | S | 0 | 20000 | 20000 | 0 | 10000 |
| 500209 | B | 80000 | 0 | 80000 | 10000 | 0 |
| Total | | 120000 | 20000 | 100000 | 20000 | 10000 |

e.g. 1: When a Buy Order is put in Reliance (500325), 100 shares @ Rs.300 valued at Rs.30,000.

$$\begin{aligned} \text{Net Potential} &= (\text{Gross Purchase} - \text{Gross Sell}) + \text{Pending Buy} + \text{New Buy Order} \\ &= 1,00,000 + 20,000 + 30,000 \\ &= 1,50,000 \end{aligned}$$

Since Net Potential is less than Net Value Limit, order will be permitted.

e.g.2, When a Sell order is put in Reliance (500325), 100 shares @Rs.310 valued at Rs.31000:

$$\begin{aligned} \text{Net Potential} &= (\text{Gross Purchase} - \text{Gross Sell}) - \text{Pending Sell} - \text{New Sell Order} \\ &= 100000 - 10000 - 31000 \\ &= 59000 \end{aligned}$$

Since Net Potential is less than Net Value Limit, order will be permitted.

Eg.3, When a Buy order is put in Infosys (500209), 25 shares @Rs.3500 valued at Rs.87500:

$$\begin{aligned}\text{Net Potential} &= (\text{Gross Purchase} - \text{Gross Sell}) + \text{Pending Buy} + \text{New Buy Order} \\ &= 100000 + 20000 + 87500 \\ &= 207500\end{aligned}$$

Since Net Potential is greater than Net Value Limit (Rs. 2Lacs), order will NOT be permitted.

SCRIP WISE LIMITS

In Scripwise limits, the Trading Member can set the scripwise quantity limits for various scrips for its various TWS's. This will enable the Trading Member to have a control on the quantity traded by his traders. The members can set the limits for more than 50 scrips for the trader terminals.

GROUP WISE LIMITS

The Trading Member through Admin Terminal may now specify the Buy and Sell value for a group. The trader will not be allowed to trade in that Group once his value is exceeded. If the Buy value is exceeded he will not be allowed to buy and when the Sell value is exceeded he will not be allowed to sell. Groupwise limits may be entered from the scripwise limit screen. The Group may be chosen from a set of available groups and Buy and Sell limits may be specified.

SET PROFILE OF TRADER A LIKE THAT OF TRADER B

Admin may set all limits for one trader like that of another. In this case all i.e. Trader Wise, Scrip Wise and Group Wise of one trader will be set like that of another.

Net Position Trader-wise and Scrip-wise for all traders will be available on Admin Terminal. The current position for all traders will be available.

Note: When there are pending orders, the allowed limit on new orders will be modified correspondingly. Basic rules governing the quantities remain the same.

TRADER ACTIVATION AND SUSPENSION FACILITY:

The main Trading Member can activate or suspend their Traders under him.

PASSWORD RESET FACILITY

The system provides a password-reset facility from the admin terminal. The main Trading Member would have the facility to reset the passwords of his terminals.

CLIENT REGISTRATION (Function Key: [Shift] + [F4])

Each Trader of a main Trading Member must be registered with the Exchange and is

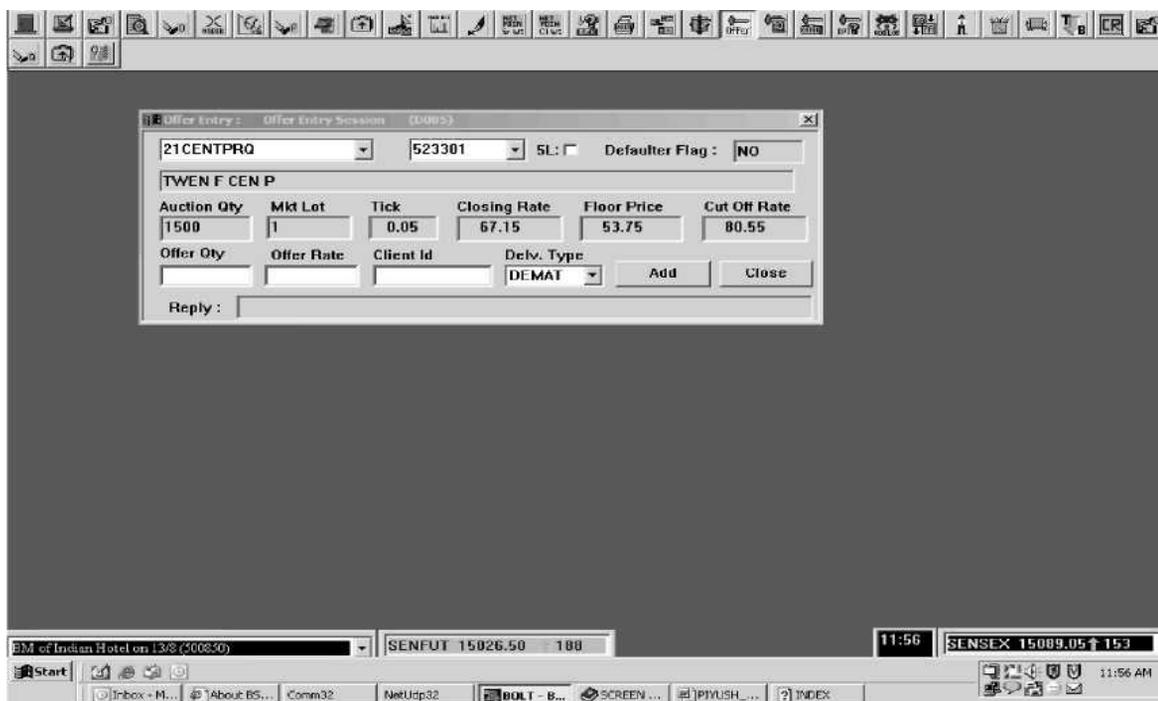
assigned a unique Trader ID. Trade Work Station (TWS)/IML (Intermediate Message Layer) user registration button is available only for trading terminals and is disabled in case of Admin, Clearing House and Custodian terminals. Also, though the button is visible for Trader 2 and above the said functionality can be availed only by Trader 1 under every Trading Member. The Trading Member will have to upload the location and TWS/IML user details as required in the window.

AUCTION SESSION

Auction is the process of settling the shortages that have risen due to the Delivering Member (i.e. Selling Member) failing to deliver the securities at the time of Settlement pay-in on T+2 Day. The Clearing and Settlement Department of the Exchange informs the market through its notice that Auction Session will be conducted on T+3 Day for such securities short delivered by the delivering members. Auction Session is conducted online on BOLT normally between 11:00 a.m. to 12 noon. All the Trading Members and their clients except the defaulting delivering member can participate in the Auction Offer Entry session.

Auction Offer Entry (Function Key: [Control] + [F3])

The offer entry screen of BOLT Auction Session is given below:



On clicking the Offer Entry Icon the Auction Master for today's auction will be automatically downloaded on the TWS's of the Trader.

On entering the scrip code/ID of the scrip in the offer entry window, the Trading Member will be able to see the total auction quantity of the scrip, market lot of the scrip, tick size,

Closing Rate (i.e. Previous Day's Closing Price), Floor Price (i.e. Previous Day's Closing Price minus 20%), Cut off Rate (i.e. Close out Rate). The Trading Member will have to enter the offer quantity, Offer Rate and Client ID and press the "Add" button.

The Trading Members who are offering the shares in the Auction Session has to offer the shares at a rate which should be between the Floor Price and Cut off Rate. Any Offer rate entered by the Trading Member 'below the Floor Price' and 'above the Cut off Rate' will be treated as invalid offers received in the auction session.

The offers entered by the Trading Member can be modified or deleted any time during the offer entry session from the Pending Offer window (**Function Key: [Control] + [F4]**). Further, sorting facility on scrip-id, time and client-id is available to the Trading Members. The Trading Member can upload multiple offers for various scrips through the Auction Batch Offer Entry Window.

Note:

A Defaulting Trading Member will not be allowed to enter an offer for the scrip in which he has defaulted.

Multiple traders of the same Trading Member can do offer entry. However, they can be modified or deleted only by the trader entering the offer.

Offers will be accepted only for those scrips which are present in the auction scrip master.

Offer quantity must be multiple of the market lot for the scrip.

A single offer quantity can not be greater than the auction quantity for the scrip.

Offer rate is a multiple of the tick and it cannot be lower than the Floor price and greater than the cut-off rate.

Auction Batch Offer Entry (Function Key: [Control] + [F5]): This window is provided as a facility for quick entry of offers in a batch mode. This function may be used during Auction Sessions. The maximum number of offers you may submit at a time is 500. The facility to upload offers can be used even without logging on, however the offers may be submitted only on logging on.

There are two ways in which you can input offers in a batch:

- 1) Through screen entry of offers and later submission
- 2) By loading a pre-created batch file into the system

Selection of offers: At the end of offer entry session, the offers will be selected for trade generator. The selection will be done in the following manner: Offers for a single scrip will be sorted in descending order of rate and ascending order of Trading Member.

The trader ID will be ignored. If there are multiple *offers* by a single member for the same rate, they will be consolidated in a single offer by adding up the quantities of all offers. If this quantity exceeds the auction quantity, then it will be changed to the auction quantity. Quantities at every rate will be accumulated. The cumulative quantity offered upto that rate will also be computed. This procedure will continue till all offers are exhausted or the cumulative offer quantity matches or exceeds the auction quantity.

If total offer quantity is less than the auction quantity, all offers are selected and the balance quantity will be closed out.

If total offer quantity equals the auction quantity, all offers get selected and all defaults get covered. ***If the offer quantity exceeds the auction quantity, then offers upto the "lowest rate" at which the offer quantity exceeds the auction quantity get selected.***

All offers with a higher rate are rejected i.e. they are not considered for matching. Consider the following example:

Auction quantity is 10,000

| Tick is 1 (One) Rupee. | | | |
|------------------------|--------|--------------|-----------|
| Rate | Offers | Qty. at this | Cum. Qty. |
| 100 | 5 | 4000 | 4000 |
| 101 | 4 | 5000 | 9000 |
| 102 | 5 | 3000 | 12000 |
| 103 | 3 | 2000 | 14,000 |

In this case, offers with rates 100 and 101 get selected with full quantity considered for matching.

Offers with the rate Rs.103 and higher (if present) are rejected.

For the offers with rate 102, quantity needed is 1000 and offered is 3000. Hence, from each offer a third quantity will be considered for matching. The accepted quantity will be rounded to a lower multiple of market lot. The residual quantity (due to rounding off at lower multiple) is taken from the same offers (with rate 102 in this example) in the sequence of member ID.

Thus, it will always be ensured that the quantity of selected *offers* does not exceed the auction quantity.

Quantity allocation to the buyers: The total quantity from the selected *offers* will be allocated to the buyers. When the selected quantity is equal to the auction quantity, then all buyers will get their full quantity.

When the offer quantity is less than the auction quantity, the allocation is done in the

following manner:

If the buyer is also an offerer, then his offer quantity is allocated to himself. If there is a balance quantity to be received, it will consider for allocation.

The buyers will be sorted in the descending sequence of the pending (after allocating own offer quantity if any) receive quantity and ascending sequence of member ID.

The quantities will be allocated to the buyer arranged in this manner till all offer quantity is exhausted. *Unallocated quantity will be closed out.*

Consider the following example.

Total quantity offered in Auction is 1400 against total Auction Quantity was 1700.

| Pending Qty. | Member ID | Qty. allocated | Qty. Closed Out |
|--------------|-----------|----------------|-----------------|
| 500 | 151 | 500 | 0 |
| 400 | 130 | 400 | 0 |
| 300 | 125 | 300 | 0 |
| 300 | 140 | 200 | 100 |
| 200 | 115 | 0 | 200 |

Rates calculation: The following rates will be calculated for the auctioned scrips in the manner described.

Auction Rate: This is a weighted average rate of all selected *offers*. Only the selected quantity from the *offers* will be considered for this purpose. Considering the example from 6.12.9.3 the minimum rate will be

| Rate | Qty. selected | Value |
|--------------|---------------|------------------|
| 100 | 4000 | 400,000 |
| 101 | 5000 | 505,000 |
| 102 | 100 | 102,000 |
| Total | 10,000 | 10,07,000 |

The weighted average rate will be Rs.100.70. In absence of any offers the auction rate will be 0.

Close out Rate: This is the rate at which the deals remaining open due to lack of sufficient offers will be closed out. Please refer Chapter "Clearing & Settlement" for the Close Out rate formula.

Defaulter debit rate: This rate is used to debit the defaulters. It is calculated as weighted

average of the auction rate and the close out rate. Consider the following example.

Auction quantity 12,000 Offer quantity 10,000 Close out quantity 2,000 Auction Rate 105.00 Close out rate 110.00

Then the default rate is $((10,000 * 105) + (2,000 * 110)) / 12,000$ which is 105.83.

Delivery List Generation:

In this step, the offerer and the buyer will be matched and a report will be generated for both. This report will show who delivers to whom. The following method will be used for every scrip:

If multiple offers from a single member are accepted, then they will be clubbed to arrive at a single offer quantity.

If the buyer is also an offerer, then he will have to deliver to himself. His pending offer quantity and pending receive quantity will be adjusted accordingly.

The offers will be arranged in a descending sequence of the pending offer quantity. The buyers will be arranged in a descending sequence of the pending receive quantity.

The pairing will be done starting at the top of the list. The report for the buyers will also indicate the quantity closed out and the money to be received for the same.

Money statement generation:

Money statements will be generated for the offerers, defaulters, buyers and the stock exchange. The credits and debits will be done in the following manner:

Offerers: Offerers will be credited for every accepted offer. The credit amount will be the offer rate multiplied by the accepted offer quantity.

Buyers: If there is a close out, the buyers will be credited for the quantity closed out at the close rate for the scrip.

Defaulters: If the defaulter debit rate is less than the Hawala rate (i.e. Standard Rate-T Day Closing of the scrip), then the defaulters will be debited for the default quantity at the Hawala rate and the stock exchange will be credited at a rate difference between the Hawala rate and the defaulter debit rate. Otherwise, the defaulters will be debited at the defaulter debit rate for the default quantity.

Further a penalty of 1% of the Hawala rate/Defaulter debit rate (which ever is higher) per share is levied on the defaulting delivering member.

The defaulter has to approach the defaulters committee for restart of his business,

within a period of 6 months. The discretion whether to readmit a defaulter as a member rests with The Board of Directors of the Exchange

The Stock Exchange: The stock exchange will get credit for the penalty charged to the defaulters. Additionally, if the defaulter debit rate is less than the Hawala rate, then the stock exchange will get credit at the rate difference between the Hawala rate and the defaulter debit rate. After all entries (offers, close outs, etc.) are processed, the credits / debits will be arranged member wise to generate a consolidated money statement. Similarly, the stock exchange will also get a consolidated statement for its own credits.

Report Download:

After all the steps described above, the trading members will be able to download their respective reports during report downloading session & login session of the subsequent day. The following reports will be available as applicable:

Accepted Offers report: This report will be in the sequence of scrip ID and will have one entry each for every offer rate. The offer ID generated during offer entry will not be shown on this report.

Statement: This statement will be generated for the offerers. It will be in the sequence of scrip ID and the receiving member sequence. It will show only the quantity to be delivered. The rates will be shown on this report.

Receiving statement: This statement will be generated for the buyers. It will be in the sequence of scrip ID and the delivering member sequence. It will show only the quantity to be received. The rates will not be shown in this report. It will also show the quantity closed out without the close out rate.

OTHER BOLT ICONS

7.10.12. Traders and Broker Query (Function Key: [Shift] + [F10])

A Trader will be allowed to download trade log and order log of any day other than current day in Logon session as well as the Member Query session. Trading Member from its TWS No.1 can download the under mentioned files:

a) Consolidated Order log of any day including current day (in Member Query session only) using TR/BR

(Alt+F1) icon.

b) Brokers query files i.e. trades done by all the traders under the Trading Member (in logon as well as Member Query session).

Note: The days for which the above downloads are available is displayed on the screen.

7.10.13. **Scrip Help (Function Key: [Control] + [F1])**

This window contains all the relevant information about any scrip. It displays the scripcode, scripid, Description, Market Lot, Market Protection percentage, scrip master version no., Scrip master release no., VaR Rate, ELM VaR Rate for each scrip. This windows also displays additional information of the scrip such as Special Margins, ISIN code (allotted by Depositories for this scrip), Face Value, No Delivery period, Book Closure dates, Record Date, Tick size, Dividend Details etc. To view this window it is not mandatorily to log on. However, the VaR and ELM VaR rates for each scrip will not be available if the user has not logon to the BOLT system.

Note: VaR and ELM VaR rates for all the scrips will be downloaded to the Trader only upon clicking of the Scrip Help icon. Incase the Trader has not click the scrip help icon the VaR and ELM VaR rate will not be reflected in its Order Entry Screen.

7.10.14. **News Window (Function Key: [Shift] + [F6])**

The Trader can view the news item in the under mentioned category on clicking the News Window icon:

- (i) Board Meeting Information
- (ii) BSE Free format Text
- (iii) BSE-Today's Turnover: The BOLT turnover, Top 10 scrip by Turnover in BOLT system and F&O turnover. The first display of the said information is done at 10:00 a.m. and thereafter at a time interval of every 15 minutes.
- (iv) BTI -Training Schedule: is displayed for the month.
- (v) Buy-Back of Shares: The information received from the companies whose buy-back offer is opened is displayed here.
- (vi) Company announcement/Clarification: The company announcement/ clarification received during the market hours are displayed in this Box.
- (vii) Corporate Results: The brief particulars of the financial results declared by the company are displayed in the Box.
- (viii) Derivatives News

(ix) Today's Board Meetings: For the benefit of the market the BOLT system displays the Today's Board Meetings details for easy tracking of corporate announcements.

7.10.15. INDEX DETAILS (Function Key: [Shift] + [F7])

The index window displays the current index value, index high, index low, opening index and closing index. In the continuous trading session the value shown in the closing index is the value of previous day closing index and it gets replaced with the today's closing index value in the Post Closing session. Further, on clicking of the "Show Trend" push button it opens another window where the variation of the Sensex with time for the day is shown in the form of graph (either in Bar and Continuous mode).

At present there are 21 indices maintained by BSE.

| No. | Name of the Index | Type of Index |
|-----|-------------------|--|
| 1 | SENSEX | Benchmark index of Indian capital market comprising of 30 scrips |
| 2 | BSE-100 | Broad-based index comprising of 100 scrips |
| 3 | BSE-200 | Broad-based index comprising of 200 scrips |
| 4 | BSE-500 | Broad-based index comprising of 500 scrips |
| 5 | Dollex-30 | Dollar linked version of SENSEX |
| 6 | Dollex-100 | Dollar linked version of BSE-100 index |
| 7 | Dollex-200 | Dollar linked version of BSE-200 index |
| 8 | BSE Mid-Cap | Index tracks scrips that are categorized as mid-cap as per the criteria decided by BSE |
| 9 | BSE Small-Cap | Index tracks scrips that are categorized as small-cap as per the criteria decided by BSE |
| 10 | BSE PSU | Index tracks public sector undertaking listed at BSE where stage and/ or central govt. holds 51% |
| 11 | BSE Auto | Index tracks companies classified under auto sector in BSE-500 index |
| 12 | BSE Bankex | Index tracks companies classified under banking sector in BSE-500 index |
| 13 | BSE Capital Goods | Index tracks companies classified under capital goods sector in BSE-500 index |

| | | |
|----|----------------------------|--|
| 14 | BSE Consumer Durables | Index tracks companies classified under consumer durables sector in BSE-500 index |
| 15 | BSE FMCG | Index tracks companies classified under FMCG sector in BSE-500 index |
| 16 | BSE Healthcare | Index tracks companies classified under healthcare sector in BSE-500 index |
| 17 | BSE Information Technology | Index tracks companies classified under information technology sector in BSE-500 index |
| 18 | BSE Metal | Index tracks companies classified under metal sector in BSE-500 index |
| 19 | BSE Oil & Gas | Index tracks companies classified under oil & gas sector in BSE-500 index |
| 20 | BSE Realty | Index tracks companies classified under realty sector in BSE-500 index |
| 21 | BSE <i>TECK</i> | Index tracks companies classified under IT, telecom and media sectors in BSE-500 index |

BSE Realty index is the latest index which was introduced by BSE on July 9, 2007.

7.10.16. Viewing Broker Position

Trading Members only during the Member Query session from its Trader No.1 TWS can view all the trades executed by all his traders.

It displays the same details as that displayed in the Saudas Window as well as the trader id. Clicking on the Broker Position icon initiates receiving of trades data from the BOLT system. As the trades are received, they are displayed in this window and the count of trades is also displayed in the Broker Trades Count field. When all trades have been received it checks whether there has been any error in receiving trades. If so a warning message is displayed and Trading Member will have to re-initiate the Query. If all trades have been successfully received a message is displayed indicating the file in which the data has been stored. This file is in binary format and can be converted in ASCII format using Winprn32 application.

The Trading Member can also print the broker query files from Winprn32 application, and

the user will be prompted with the message "Do you want to print with Scrip Group & Settlement Number?" with "Yes" and "No" options. If "Yes" is selected then the printed file will contain Scrip Group and Settlement Number (with financial year) fields. If "No" is selected then the printed file will not contain Scrip Group and Settlement number (with financial year) fields.

Also, Files created with old TWS32 application (older than Version 34.00) will not have an option of printing Scrip group and Settlement number with financial year fields.

7.10.17. **Sell for Delivery (SD)/Early Pay-in of shares**

Sell for Delivery is facility provided in the BOLT system, so that once the Trading Member actually delivers the shares, he would get an exemption in his margins. If the Trading Member has done early pay-in of securities for the settlement (i.e. current settlement - T Day and unsettled settlement T-1 Day) after doing the transaction, then the BOLT system shall release the Margin blocked on such transactions on receipt of information from the Clearing House.

Margin release shall be available to the Trading Member's online if he has deposited the shares upto 3:00 p.m. on T Day, T+1 Day and till 09:30 am on T+2 days.

7.10.18. **Net Position (Scripwise) - (Function Key: [Shift] + [F9])**

This window is part of the Main Menu. Press [Shift]+[F9] to activate this window. The window displays a set of scrips with their cumulative Buy & Sell positions and their net position and break even point.

7.10.19. **Net Position Clientwise - (Function Key: [Alt] + [F3])**

To activate this window Press [Alt] + [F3] keys. The window displays the list of all the clients with their net positions. The fields displayed are Client, Gross Purchase, Gross Sale, Net Value and Profit/Loss.

On pressing the "Refresh" pushbutton in the window it refreshes the Profit/Loss of each client and net Profit/Loss. On double clicking on one of the clients another window appears which gives a scripwise net position for that client.

File formats of the files available in BOLT:

The Trading Members use numerous files for their back office processing. A variety of files are available on the BOLT front end. These files can be viewed and saved through

the BOLT front end. The trading members save these files in the prescribed (requisite) format. Some of these files can be utilized by the trading member's back offices for further processing. Some other files have to be converted in text format using the WINPRN facility. The files available in BOLT contain the complete information of the topic. A list of such files, the formats and the description is depicted in the following pages.

Each field is separated by a pipe "|" character and each record is on a separate line.

The 'fully executed orders' files give information about the average rate for the orders. This average rate is being used for the further post trade processing and the settlement purposes. The average rate is being used for all the margin and payoff calculations. The file is used by the trading members for the settlement and back office calculations in their back office processing.

A brief explanation of all the files is as below:

| Sr. No. | Name of the file | Contents | No. of fields | Nature of file/ Saved as |
|----------------|---------------------------------------|------------------------------|----------------------|---------------------------------|
| 1. | Fully Executed Orders File | Details of the fully | 9 | ORD |
| 2. | Trades File | All the details of the trade | 18 | Text file |
| 3. | Order Log | All the Order | 17 | Text file |
| 4. | Broker Query File | | 20 | Dat |
| 5. | 6A/ 7A records file | Date relating to | 15 | UPD (Updateable) |
| 6. | File for Touchline Save | The profiled touchline | 9 | Text file |
| 7. | Scrip wise/ Client wise | can be saved in this file | 8 | Text file |
| 8. | Clientwise/ Scripwise position | | 4 | Text file |
| 9. | SD/ EP trades file for members | | 9 | Text file |
| 10. | SD/ EP trades file for Clearing House | | 8 | Text file |

| | | | | |
|-----|---------------------|--|----|-----------|
| 11. | Pending orders file | | 11 | Text file |
| 12. | Admin trades file | | 16 | *.ADM |

7.11. FULLY EXECUTED ORDERS FILE

The fully executed orders in BOLT can be viewed in the fully executed window and can be saved in a file with extension ".ORD". The information related to the fully executed orders is present in this file. The fully executed orders file is a text file.

The format for the fully executed orders file is as follows:

B/S|Sc Id|Sc Code|Exe Qty|AvgRate|ClientId|OrderId|Ord Typ|InstId|

| Sr. | Convention | Meaning | Remarks |
|-----|------------|----------------------|---|
| 1. | B/S | B or S (Buy or Sell) | |
| 2. | Scid | Scrip Id | - |
| 3. | Sc Code | Scrip Code | - |
| 4. | Exe Qty | Executed Qty | The whole order quantity is executed at the average rate. |
| 5. | Avg | Average | The average of the executed rates (for the orders in the market |
| 6. | Client Id | Client Id | If 'Client' is selected as the option. |
| 7. | Order Id | Order Id | - |
| 8. | Ord Typ | Order Type | Market, Limit, Basket, etc. |
| 9. | Inst Id | Institution Id | If Institution is selected. |

7.11.1. TRADES FILE

The trades file contains the details of all the trades along with the order and trade time stamp. The trades file name is in the form TRddmmyy.nnn, where TR refers to trade and ddmmyy is the day, month, year on which it was created and nnn is trader id.

For eg: For a trader 27, The trade file dated 12' April 2002, will be in the form TR12042002.027. The trades file is a text file in the following format::

SCd|ScId|TrdId|Rt|Qty|OppMid|OppTrId|Time|Date|CId|BuySell|TransType|TransID|InstId|ISINcode| Ordtimestamp |Scripgroup |Settlement

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------|------------|---------|
| 1. | SCd | Scrip Code | - |
| 2. | ScId | Scrip Id | - |

| | | | |
|-----|-------------|--------------------|--------------------------------|
| 3. | TrdId | Trade Id | - |
| 4. | Rt | Rate | - |
| 5. | Qty | Quantity | - |
| 6. | OppMId | Opposite Member | Not used and "*" sign will |
| 7. | OppTrId | Opposite Trader Id | Not used and "*" sign will |
| 8. | Time | Trade time | The time at which the trade is |
| 9. | Date | Trade date | The date on which trade is |
| 10. | Cl Id | Client Id | |
| 11. | Buy/Sell | B or S (Buy or | |
| 12. | TransType | Transaction type | |
| 13. | TransId | Transaction Id | |
| 14. | InstId | Institution Id | |
| 15. | ISIN code | ISIN Code of each | |
| 16. | OrdTimesta | Order Timestamp | |
| 17 | Scrip Group | Scrip Group | |
| 18 | Settlement | Settlement No. | |

The file is used by the trading member's back offices to generate their daily reports and to calculate their liabilities. The Valan and margin payables can be calculated by using this file. The file will also help the trading members to keep a track of the exact numerals and value inputted on the screen while trading.

Each field is separated by a pipe "|" character and each record is on a separate line.

This is a reference file for knowing the order details of the fully executed orders. The order quantity and the rate including the Client ID and the Trade Id are present in the file for reference.

7.11.2. ORDER LOG

This is a binary file. **Winprn32 is used to convert into text format.** Order log contains the list of all the orders entered and accepted at BOLT. The order log also captured any alterations made to the previous order.

All the fields in this file are pipe "|" separated. File format:

B/S| Sc Code|Sc Id|Qty|Rev Qty|Rate|Trig Rate| LimRate|T ime|Date|Or derl d|Or d Typ| ClientId|InstId|Ret|AUD|Message

Each field will be separated by a pipe "|" character and each record will be on separate line. The details of all the orders placed by the trading member through his terminal are available in the order log. The Order log also contains the flags for the updation and deletion of orders. The respective system messages associated with a particular order are provided to the trading members in the order log. Each order is labeled with a unique

order-id. All the modifications, deletions and system messages relating to the particular order are captured in the order log as separate record. The order log gives a complete view of all the orders entered by the trading member in a Settlement.

E.g.: EOTODY|A|Order Added successfully|

| Sr. No. | Convention | Meaning | Max Length |
|---------|------------|------------------|------------|
| 1. | B/S | Buy or Sell | C(1) |
| 2. | Sc Code | Scrip Code | N(10) |
| 3. | ScId | Scrip Id | C(11) |
| 4. | Qty | Order Qty | C(10) |
| 5. | Rev Qty | Revealed Qty | N(10) |
| 6. | Rate | Order Rate | N(10) |
| *7. | Trig Rate | Trigger Rate | N(10) |
| *8. | Limit Rate | Limit Rate | N(10) |
| 9. | Time | Order Time | Hh:mm:ss |
| 10. | Date | Order entry date | Dd/mm/yyyy |
| 11. | Order Id | Order Id | N (14) |
| 12. | Ord Typ | Order Type | C(1) |
| 13. | Client Id | Client ID | C(11) |
| 14. | Inst ID | Institution Id | C(10) |
| 15. | Ret | Retention | C(6) |
| 16. | AUD: | | |
| 17. | 'A | Addition | C(1) |
| 18. | 'IT | Updation | C(1) |
| 19. | 'D' | Deletion | C(1) |
| 20. | Message | System Message | C(40) |

* Note: Incase of orders other than "Stop Loss" order the 7th & 8th field will be null.

7.11.3. BROKER QUERY FILE

The file is saved with a ". DAT" extension.

The file name for Broker Query is BRddmmyy.BIN. The convention ddmmyy refers to the current day, month and year.

For Eg: The brokers file dated 4'April 2002, will be in the form BR04042002.BIN.

The file is available only on the Admin. Terminal and it contains all the information related to a particular transaction made by particular trader.

A pipe character separates all the fields in this file. The file format is as follows:

MemId|TdrId|SCd|SCId| Rt|Qty|OppMid| OppT rId|T ime|Date|ClId|T rId | Trn
 Typ|Buy/ Sell|TradeId|InstId|OrdTimestamp|Scrip Group|Sett No.|ISIN cd

| Sr. No. | Convention | Meaning | Remarks |
|---------|--------------|--------------------|---------|
| 1. | MemId | Member ID | |
| 2. | TdrId | Trader Id | |
| 3. | SCd | Scrip Code | |
| 4. | SC Id | Scrip Id | |
| 5. | Rt | Rate | |
| 6. | Qty | Quantity | |
| 7. | Opp Mid | Opposite Member Id | |
| 8. | Opp TrId | Opposite Trader Id | |
| 9. | Time | Time | |
| 10. | Date | Date | |
| 11. | ntId | Client Id | |
| 12. | tion Id | Transaction Id | |
| 13. | Trn Typ | Transaction Type | |
| 14. | Buy/ Sell | Buy or Sell | |
| 15. | Trade Id | Trade Id | |
| 16. | Inst Id | Institutional Id | |
| 17. | OrdTimestamp | Order Timestamp | |
| 18. | Scrip Group | Scrip Group | |
| 19. | Sett No. | Settlement No. | |
| 20 | ISIN Cd | ISIN Code | |

The main trading member from its Admin Terminal can view/download all the trades done by its traders. The fees or commission to be charged to the traders can be calculated on the basis of this file.

7.11.4. FILE FOR 6A/7A RECORDS FOR MEMBERS

The file is saved with two extensions:

1. UPD - Contains all the un-confirmed and updateable 6A/7A records.
2. NUP - The confirmed and non-updateable data is saved in this file.

Trading Members can enter client's obligation transfer request to the Client's custodians

using the 6A/ 7A window in the BOLT system. On entering of 6A/7A entry (obligation transfer request entry) the same shall be flashed online on the Client's Custodians TWS's for confirmation.

The Trading Members can modify the unconfirmed 6A/7A entry by 11:00 a.m. on T+1 day. All such unconfirmed 6A/7A entries can be saved by the Trading Members and it shall have file extension as "*.UPD".

Similarly, the confirmed 6A/7A entry can also be saved by the Trading Members/Custodians which will have a file extension as "*.NUP".

The file format is as follows:

**ScCd|BkCd|SpNegFlg|TradeId|B/S|DivMeth|Qty|ContPr|Dt|Client|Cn
fFlg|Id| ContNo|Comment|TypeofDeal|**

| Sr. No. | Convention | Meaning | Remarks |
|---------|-----------------------|---------------------------|---------|
| 1. | ScCd | Scrip code | |
| 2. | BkCd | Bank Code | |
| 3. | Sp. Neg FlgSpecialNeg | Special Neg. Flag | |
| 4. | Trade Id | Trade ID | |
| 5. | B/S | Buy or Sell | |
| 6. | Div Meth | Delivery Method | |
| 7. | Qty | Quantity | |
| 8. | Cont Pr | Contract Price | |
| 9. | Dt | Date | |
| 10. | Client | Client | |
| 11. | on Flag | Confirmation Flag | |
| 12. | Id | 6A7A Id | |
| 13. | Cont No | Contract No | |
| 14. | Comment | Comment | |
| 15. | TypeofDeal | Type of Deal(1:Blockdeal; | |

All the items are separated by a pipe '|' character and each record would be on a separate line.

FILE FOR TOUCHLINE SAVE:

The first line contains the Date, Time & Index information in the following format: The first line: DDMMY|Time = HH:MM|Index= XXXXXX|

The remaining lines contains the touchline information in the following format: Scld|SCd|Buy Rt|Sell Rt|Open Rt|High Rt|Low Rt|LT Rt|Trdvol|

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------|------------|---------|
| 1. | Scld | Scrip Id | |
| 2. | SCd | Scrip Code | |
| 3. | Buy Rt | Buy Rate | |

| | | | |
|----|---------|------------------|--|
| 4. | Sell Rt | Sell Rate | |
| 5. | Open Rt | Open Rate | |
| 6. | High Rt | High Rate | |
| 7. | Low Rt | Low Rate | |
| 8. | LTRt | Last Traded Rate | |
| 9. | Trdvol | Traded Volume | |

SCRIP PROFILING - 'Save' Option

The touchline can also be profiled. This scrip profiles can be saved in a ". SPR" file.

The BOLT system however requires that these settings be read from a file called 'default. spr'. If the profiled scrips have some other name, then the name along with "default.spr" is being used to save this file.

7.11.5. SCRIP WISE - CLIENTWISE POSITIONFILE

As the name suggests, this file contains the relevant position Client wise. The file contains the data in scrip wise positions. The trading members use this file for comparing and tallying their positions. The file will also help the members to keep a track of the exact numerals and value inputted on the screen while trading. The first line contains:

SCRIPCLIENT WISE|Scripl d|MemberID|dd/mm/yy|TraderId|time

The remaining lines contain the Scrip's Clientwise information in the following format:
ClientId|BuyQty|BuyAvgRate|SellQty|SellAvgRate|Net Qty|NetValue|BreakEvenPrice

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------------|---|---------|
| 1. | Client Id | Client ID | |
| 2. | Buy Qty | Buy Quantity | |
| 3. | Buy Avg Rate | Average Buy Rate | |
| 4. | Sell Qty | Sell Quantity | |
| 5. | Sell Avg. Rate | Average Sell Rate | |
| 6. | Net Qty | Net Quantity | |
| 7. | Net Value | Net Value | |
| 8. | Break Even Price | Difference between the Avg. Buy and Avg. Sell | |

7.11.6. 7.8. CLIENT WISE-SCRIPWISE POSITION

As the name suggests, the file contains the information about the Client wise Position of the trades effected by the particular trades. The file contains the data in client wise positions. The members use this file for comparing and tallying their positions. The file will also help the members to keep a track of the exact numerals and value inputted on

the screen while trading.

The first line contains:

CLIENTWISE|MemberId|dd/mm/yy|TraderId|ClientId|Time|Profit Loss

The remaining lines contain the Clientwise position information in the following format:

ScripId|Profit/Loss|BuyQty|BuyAvgRate|SellQty|SellAvgRate|NetQty|NetValue|BreakEvenPrice

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------------|--|---------|
| 1. | ScripID | ScripID | |
| 2. | Profit / Loss | Profit / Loss | |
| 3. | Buy Qty | Buy Quantity | |
| 4. | Buy Avg Rate | Buy Average Rate | |
| 5. | Sell Qty | Sell Quantity | |
| 6. | Sell Avg Rate | Sell Average Rate | |
| 7. | Net Qty | Net Quantity | |
| 8. | Net Value | Net Value | |
| 9. | Break Even Price | Difference between the Avg.Buy and Avg. Sell | |

7.11.7. SD/EP TRADES FILE FOR MEMBERS

The "Sell for Delivery" and the "Early Payin" trades are also available for the reference of the members to facilitate their post trade processing and liabilities. The members also can calculate their Valan and margin payables with this file.

The sequence of items in the SD/EP trades file for members is as follows:

SettNo|Scrip|Total Qty|Rate|Time|ClientId

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------|----------------|---------|
| 1. | Sett No | Settlement No | |
| 2. | Scrip | Scrip Code | |
| 3. | Total Qty | Total Quantity | |
| 4. | Rate | Rate | |
| 5. | Time | Date and Time | |
| 6. | ClientId | Client ID | |

A pipe 'I' character separates all the items. Each record is on a separate line.

7.11.8. SD/EP TRADES FILE FOR THE CLEARING HOUSE:

The sequence of items in the SD/EP trades file for Clearing House is as follows:

Settno|MembId|Scrip|Tr/DO Id|TXNID|Recv Qty|Time

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------|---------------|---------|
| 1. | Sett No | Settlement No | |
| 2. | MembId | Member Id | |

| | | | |
|----|----------|-------------------|--|
| 3. | Scrip | Scrip Code | |
| 4. | Tr/DO Id | Trade/Delivery | |
| 5. | Txn Id | Transaction ID | |
| 6. | Recv Qty | Received Quantity | |
| 7. | Time | Date and Time | |

A pipe character as shown above separates all the items.

7.11.9. PENDING ORDERS FILE

All the details of the pending orders in BOLT are available in this file.

The sequence of items in the Pending Orders file is as follows:

B/S|Total Qty|Rev Qty|SCode|Scrip Id|Rate|ClientId|Time|Order Id|InstId|Min Qty

| Sr. No. | Convention | Meaning | Remarks |
|---------|------------|-------------------|---------|
| 1. | B/S | Buy or Sell flag | |
| 2. | Total Qty | Total Quantity | |
| 3. | Rev Qty | Revealed Quantity | |
| 4. | SCode | Scrip Code | |
| 5. | Scrip Id | Scrip ID | |
| 6. | Rate | Rate | |
| 7. | Client Id | Client Id | |
| 8. | Time | Time Stamp | |
| 9. | Order Id | Order ID | |
| 10. | Inst Id | Institution Id | |
| 11. | Min Qty | Minimum Quantity | |

7.11.10. THE ADMIN TRADES FILE

The admin trades are saved in binary file with (*.ADM) extension. As the name suggests the file is available only at the Admin terminal.

The file contains following fields:

A pipe character as shown above separates all the items.

| Sr.No. | Field Name | Remarks |
|--------|--------------------|---------|
| 1 | Scrip Code | |
| 2 | Scrip Id | |
| 3 | Trader Id | |
| 4 | Rate | |
| 5 | Quantity | |
| 6 | Opposite Member Id | |
| 7 | Opposite Trader Id | |
| 8 | Tune | |
| 9 | Date | |

| | | |
|----|------------------|--|
| 10 | Client Id | |
| 11 | Buy/Sell Flag | |
| 12 | Transaction Type | |
| 13 | Transaction Id | |
| 14 | Institution Id | |
| 15 | ISIN Code | |
| 16 | Settlement No. | |
| 17 | Scrip Group | |
| 18 | Order TimeStamp | |

AUCTION REPORT DOWNLOAD

Trading Members can download reports of the last 25 auctions after closing session.

The reports can be printed on to paper or to file by using Auction Reports option present in Winprn32.

OFFLINE PRINTING OF TRADES

This is in addition to the on-line printing option. The Trade file is created automatically by the BOLT system when the trader logs off.

The file is in a binary form Trddmmyy.bnn where dd,mm,yy stands for day, month and year respectively. The trades can be printed using the Winprn32 software. **For Trades printing**

The binary Trade file can be converted to a text file, (with default file name in the format Trddmmyy.nnn), using the Convert option from the toolbar where TR refers to trade and ddmmyy is the day, month, year on which it was created and nnn is trader id.

Files Saved From BOLT: Files For Trader

| No | File | Auto Generated | Winprint Required | Default extensio | Default Name |
|----|--|----------------|-------------------|-------------------|---------------------|
| 1 | Fully Executed Orders | N | No | .ORD | *.ORD |
| 2 | Trades File (Generated at Logoff | Y | Yes | .Bnn | Trddmmyy.Bnn |
| 3 | Trades File (Saved through Saudas Window) through Tr/Br window | N | Yes | .ORD | *.ORD |
| 4 | BOLT Order Log | Y | Yes | .NNN (.Traderl | OrddmmyyMMM.n nn |

| | | | | | |
|----|---------------------------------------|---|-----|-------------------|------------------------|
| 5 | DTSS Order Log | Y | No | .NNN (.Traderl | DtssOrddmmyMM M.nnn |
| 6 | Broker Query File (from Trader 1) | N | Yes | .BIN | Brddmmy.BIN |
| 7 | ScripClientwise Net Position | N | No | .SCP | *.SCP |
| 8 | 8Client-Scripwise | N | No | .CSP | *.CSP |
| 9 | Touchline | N | No | .SAV | *.SAV |
| 10 | 6A-7A Records file (Updatable) | N | No | .UPD | *.UPD |
| 11 | 6A-7A Records file (Non-Updatable) | N | No | .NUP | *.NUP |
| 12 | Pending Orders File | N | No | .PND | *.PND |
| 13 | Hourly Statistic | N | No | .HRS | *.HRS |
| 14 | Registered Client | N | No | .URG | *.URG |
| 15 | Save Index File | N | No | .IND | IND |
| 16 | AuctionReports Money Statement | Y | Yes | Mony 1212.d1 | Monyddmm.daa |
| 17 | AuctionReports Offer Statement | Y | Yes | Offs 1212.01 | Offsddmm.daa |
| 18 | AuctionReports Delivery Reports | Y | Yes | Dely121 2.01 | Delyddmm.daa |

The under mentioned files can be downloaded from the Admin Terminal.

| No. | File | Auto Generated | Winprint Required | Default extension | Default Name |
|-----|---|-------------------|----------------------|----------------------|--------------|
| 1 | Traders Limit File | N | No | TRD | *.TRD |
| 2 | Admin Files | N | Yes | .ADM | *.ADM |
| 3 | SD/EP Trades File for Members | N | No | .DOT | *.DOT |
| 4 | Scrip Clientwise Net Position (for all | N | No | .SCP | *.SCP |
| 5 | 5Client-Scripwise position (Trader wise) | N | No | .CSP | *.CSP |

CHAPTER 8

TRADING MEMBERSHIP

8.1. CASH SEGMENT

The membership of BSE is governed by the following:

- (i) Rules, byelaws and regulations of the stock exchange.
- (ii) The securities and exchange board of India (SEBI) rules and regulations
- (iii) The securities contract regulations act and rules
- (iv) The companies act

Membership is a personal privilege (rule5).The right of membership is inalienable (rule6). The maximum number of members of the Exchange is decided by The Board of Directors of the Exchange. The small stock exchanges can apply for membership of large stock exchanges through a subsidiary company, but not in their own name.

8.2. MEMBER

Who can be a member?

- Individual
- Corporate entity
- Nomination/Election of new members (rules-11 to 19A)

8.2.1. Methods of becoming a member

Membership of BSE can be obtained in two ways:

- 1) Nomination: by existing member/legal heirs in case of deceased member.
- 2) New membership

Procedure for obtaining membership through nomination

- A member of three years standing can nominate his own son or a company If the member is less than or not of 3 years standing then approval with special resolution of the governing board is sought.
- If a company is nominated, then the member should be a designated director in the company for a period of atleast 3 years and must be having a stake of 51% in the paid up capital of the company
- The exchange puts up a notice informing the other members with regard to the nominator and nominated persons to lodge their claims/objections, if any, against the nominator/nominee within 15 days from date of notice.

8.2.2. Eligibility for becoming a member:

The selection criteria for individual members and directors in case of corporate members are same. No person shall be eligible to be elected as a member if-

Age:

- (i) He is less than twenty-one years of age;

Nationality:

- (ii) He is not a citizen of India:

Provided that the Governing Board may in suitable cases relax this Condition with the prior approval of the Central Government;

Educational Qualification:

(iiA){He has an educational qualification of less than either matriculation or the 10 plus 2 years' qualification of the 10 plus 2 plus 3 years' educational system or such other educational qualification as may be prescribed by the Governing Board from time to time; Provided that the Governing Board may in exceptional cases, with the previous approval of the Central Government relax this condition;}

Bankruptcy:

- (iii) He has been adjudged bankrupt or a receiving order in bankruptcy has been made against him or he has been proved to be insolvent even though he has obtained his final discharge;

Composition with Creditors:

- (iv) He has compounded with his creditors unless he has paid sixteen annas in the Rupee;

Fraud:

- (v) He has been convicted of an offence involving fraud or dishonesty

Other Business:

- (vii) He is engaged as principal or employee in any business other than that of securities except as a broker or agent not involving any personal financial liability unless he undertakes on admission to sever his connection his connection with such business;

Connections with Other Forward Markets

- (viii) he is associated with or is a member of or a subscriber to or a shareholder or debenture holder in or is connected through a partner or employee of a member of or is a member or director of or debenture holder in a company which

is a member of or debenture holder in any other organization, institution, association, company or corporation where forward business of any kind whether in goods or commodities or otherwise is carried on unless he undertakes on admission to sever such association or connection;

Expelled Member or Defaulter:

(ix) He has been at any time expelled or declared a defaulter by any other Stock Exchange;

Previous Rejection:

(x) He has been previously refused admission to membership unless a period of one year has elapsed since the date of such rejection.

8.3. QUALIFICATION FOR BECOMING A TRADING MEMBER

What is the qualification for becoming a Trading Member of the Exchange?

Relevant Extracts of Rule 18 and 19 (A) of Rules, Bye-Laws & Regulations of the Exchange is reproduced as below:

Extracts of rule 18:-

No person eligible for admission as a member under these Rules shall be admitted as a member unless-

Past Experience

(i) He worked for not less than two years as partner with or as an authorized clerk or remisier or apprentice to a member; or

Partner or Representative Member

(ii) He agrees to work for a minimum period of two years as a partner or to work for such period as a representative member with another member and enter into bargains on the floor of the Exchange not in his own name but in the name of such other member; or Established Family Business

(iii) He succeeds to the established business of a deceased or retiring member who is his father, uncle, brother or any other person who is in the opinion of the Governing Board a close relative;

Work Experience

(iv) He has, in the opinion of the Governing Board, not less than two years experience in connection with various activities relating to the securities market

Financial Soundness

(v) He has a minimum net worth; possesses a minimum working capital of

cash and/or marketable securities; and possess assets belonging to himself and/or spouse or children; of such nature and value as the Governing Board may from time to time in its opinion determine and consider acceptable; and

- (vi) He qualifies in a written test conducted by the Exchange and in case of a corporate member, the directors referred to in sub-clause (v) of Rule 19A(b) qualify in a written test conducted by the Exchange, and in the case of a Financial Corporation the Chief Executive Officer and another director/officer both possessing experience as provided in sub clause
- (vii) Of Rule 19A (b) qualify in a written test conducted by the Exchange. Provided that the Governing Board may waive compliance with any of the foregoing conditions if the person seeking admission is in respect of means, position, integrity, knowledge and experience of business in securities considered by the Governing Board to be otherwise qualified for membership.

8.4. ELIGIBILITY FOR FIRMS AND COMPANIES

Firms Ineligible

- (a) A partnership firm as such shall not be eligible for membership of the Exchange; (b) 10 {deleted}

Companies

1(a) A company as defined in the Companies Act, 1956 (1 of 1956) shall be eligible to be elected as a member of the Exchange if-

- (i) Such company is formed in compliance with the provisions of Section 322 of the said Act;
- (ii) A majority of the directors of such company are shareholders of such company and also members of the Exchange; and
- (iii) The directors of such company, who are members of the Exchange, have unlimited liability in such company; Provided that where the Central Government makes a recommendation in this regard the Governing Board of the Exchange shall, in relaxation of the requirements of this clause admit as member the following corporations, companies or institutions (collectively referred to as "the financial corporation") namely -

- a. The Industrial Finance Corporation of India established under the Industrial Financial Corporation Act, 1948 (15 of 1948);
 - b. (ii) The Industrial Development Bank of India established under the Industrial Development Bank of India Act, 1964 (18 of 1964);
 - c. The Life Insurance Corporation of India established under the Life Insurance Corporation Act, 1956(31 of 1956);
 - d. The General Insurance Corporation of India constituted under the General Insurance Corporation (Nationalization) Act, 1972 (57 of 1972);
 - e. The Unit Trust of India, established under the Unit Trust of India Act, 1963 (52 of 1953);
 - f. The Industrial Credit and Investment Corporation of India Ltd., a company registered under the Companies Act, 1956 (1 of 1956);
 - g. (vii) the subsidiaries of any of the corporations or companies specified in (i) to (vi) and any subsidiary of the State Bank of India or any Nationalized Bank set up for providing merchant banking services, buying and selling securities and other similar activities.
2. (b) A company as defined in the Companies Act, 1956 (1 of 1956) shall also be eligible to be elected as a member of a Stock exchange if -
- (i) Such company is formed in compliance with the provisions of Section 12 of the said Act;
 - (ii) Such company undertakes to comply with such financial requirements and norms as may be specified by the Securities and Exchange Board of India for the registration of such company under sub-section (1) of Section 12 of the Securities and Exchange Board of India Act, 1992 (15 of 1992);
 - (iii) 11 {Deleted}
 - (iii) The directors of the company are not disqualified for being members of a stock exchange under clause (1) [except 12 {sub-clause (b) and } sub-clause (f)] or clause (3) [except 13 {sub-clause (a) and} sub-clause (f)] of Rule 8 of the Securities Contracts (Regulation) Rules, 1957, and the Directors of the company had not held the office of the Directors in any company which had been a member of the stock exchange and had been declared defaulter or expelled by the stock exchange; and

- (v) Not less than two directors of the company are persons who possess a minimum two years' experience:
- (a) In dealing in securities; or
 - (b) As portfolio managers; or
 - (c) As investment consultants. }

8.5. FEE STRUCTURE

Fee structure for a person becoming a member:

A person becoming a member has to pay the following amounts, in addition to the entrance fee:

| <i>In Lakh)</i> | | | | | |
|--------------------------|----------------------|------------------------------|----------------------------------|----------------------------|-----------------------|
| | Admission fee | Brokers' Capital Fund | Base Adequacy Contingency | Annual Subscription | Processing Fee |
| New members | 2.50 | 2.50 | 10.00 | .07 | Nil |
| Conversion | 2.50 | 2.50 | 10.00 | .07 | Nil |
| Transfer in : | | | | | |
| Less than 3 years | 2.50 | 2.50 | 10.00 | .07 | 10.00 |
| More than 3 years | 2.50 | 2.50 | 10.00 | .07 | 5.00 |

Terms and conditions:

- i) Minimum Net-worth Requirement for members: Individuals: Rs.30 lakh
Corporate members: Rs.50 lakhs Composite Corporate Members: Rs.50 lakhs for the first component plus Rs.25 lakhs each for each additional component.
- ii) Deposit Based Members (Individual/Corporate): Bombay Stock Exchange Ltd. (BSE Ltd.) will be admitting Deposit Based Memberships (Trading Memberships) on "Cash Segment" of BSE Ltd against a deposit of Rs.1 Crore. The successful applicants would also be eligible for F & O Trading membership
- iii) The Board of Directors forms the Committee of Executives, which consist of Senior Executives of BSE. The Board of Directors may delegate some of its powers either to the Committee of Executives or to the Managing Director/CEO. No person may hold the office as a member of the Board of Directors after he completes 70 years of age.
- iv) The Trading Member has only trading rights and no ownership rights of BSE Ltd.

The following are the terms and conditions:

- i) The applications should be complete in the prescribed formats and in all respects.
- ii) The specimen of the application form as well as the other material including the terms and conditions and salient features of the Trading Membership are available with the Business Development Department of BSE Ltd. or can be downloaded from the BSE website.
- iii) The application form in the prescribed format, complete in all respects should be accompanied by a Payee's A/c Demand Draft/Pay Order for Rs. 5 lakh (Rupees Five lakh only) drawn in favor of "Bombay Stock Exchange Limited" towards earnest money deposit on which no interest will be payable.
- iv) The earnest money deposit of Rs. 5 lakh (Rupees Five lakh only) shall be interest free and be refunded (without interest) to the unsuccessful applicants who are rejected on account of such applicants not meeting eligibility criteria or requirement as may be prescribed by BSE from time to time.
- v) Applications can be made by individuals and corporates who are eligible to become a Trading Member of BSE in accordance with the Rules, Bye-Laws & Regulations of BSE and subject to such terms and conditions as may be decided by BSE from time to time.
- vi) The successful applicants whose offers are accepted by BSE shall be required to pay the balance amount of the deposit within two months from the date of receipt of the letter of acceptance of offer of the person / corporate for Trading Membership of BSE .
- vii) BSE will be entitled, at its sole discretion, to forfeit the Earnest Money Deposit, if the successful applicants fail to pay the balance amount within the stipulated time. The Earnest Money Deposit of Rs. 5 lakh (Rupees Five lakh only) is also liable to be forfeited by BSE, at its sole discretion, if the successful candidate fails to complete the necessary formalities to the satisfaction of BSE within the stipulated time
- viii) The interest free deposit of the Trading Members will not have any Lock - in period. However, any trading member who wants refund of Interest Free Deposit of Rs.100 lacs shall be first required to apply for surrender of trading membership right. Before applying for surrender of trading membership right, such member shall ensure voluntary closure of business. The voluntary closure should be at least

for a period of 6 months prior to the date of surrender. Where the trading terminal of the member has remained deactivated for a period of 6 months prior to the date of surrender it shall be construed as closure of business. On receipt of application for surrender, the Exchange will give Public Notice in newspaper to enable the investors /public to lodge claims, if any, against surrendering trading member, giving a period of 3(three months) from the date of Public Notice. However, this condition would not apply to the members who have not commenced business or have not activated their trading terminals at all. Further, the amount of Interest Free Deposit will be refunded only after recovering outstanding amount if any by BSE and after getting NOC from SEBI.

- ix) In addition to the aforesaid amount of Rs. 100 lakh (interest-free deposit), the Trading Member has to pay the following amounts:
- a) Base minimum Capital - Rs.10,00,000
 - b) Trade Guarantee Fund - Rs. 10,00,000
 - c) Admission Fees (non-refundable) - Rs. 2,50,000/- + Service Tax (As applicable)
 - d) Annual Subscription - 25,000/- + Service tax (As applicable)
 - e) Initial Contribution towards TGF -10000/- + Service Tax (As applicable)
 - f) Brokers Contingency Fund – Nil
 - g) Any other amount so required by BSE Ltd.
- x) BSE will be entitled to accept the applications for Deposit Based Membership on such parameters and criteria as may be decided by BSE from time to time.
- xi) BSE reserves the right to reject any application without assigning any reason whatsoever.
- xii) The decision of BSE will be final and binding in all respects.
- xiii) Applicants will have to ensure that the Designated Directors of the applicant company are not whole time director or in full time employment in any other company.

8.6. DEPOSIT BASED MEMBERSHIP RULES & REGULATIONS

Rule 35B of the Rules, Bye-laws and Regulations of the Exchange is reproduced below:

Limited Trading Membership:

35B.

- i) The Exchange may elect and admit one or more persons as Limited Trading Members of the Exchange ("Limited Trading Member") in accordance with guidelines prescribed by the Governing Board from time to time.
- ii) Subject to the provisions of Sub-rule (3), and the scheme of Corporatization and Demutualization of the Exchange as approved by SEBI, a Limited Trading Member shall be a member of the Exchange in all respects and for all purposes and shall have all the rights, privileges, obligations and liabilities of a member of the Exchange, and shall have the right to carry on business as an intermediary in the Equity Market Segment and/or the Debt Market Segment of the Exchange as prescribed by the Governing Board from time to time. All the Rules, Bye-laws and Regulations of the Exchange shall apply mutatis mutandis to a Limited Trading Member as they apply to any other member of the Exchange. Provided however that where the Governing Board permits a Limited Trading Member to carry on business in Equity Market Segment and/or the Debt Market Segment of the Exchange as set out hereinabove, the Governing Board shall, from time to time, prescribe detailed guidelines, terms and conditions including but not limited to guidelines, terms and conditions relating to the nature and amount of deposit to be kept with the Exchange, capital adequacy norms, margin requirements etc., for each such market/segment or combination thereof. Provided further that deposit kept by a Limited Trading Member for acquiring the Limited Trading Membership, as set out hereinabove shall remain with the Exchange during the tenure of such membership.
- iii) Notwithstanding anything stated above or elsewhere in these Rules, Bye-laws or Regulations,-
 - a) A Limited Trading Member, the legal representatives of a deceased Limited Trading Member, his heirs, the persons mentioned in Appendix C to these Rules or the Governing Board shall have a right of nomination in respect of a Limited Trading Membership or a former or lapsed Limited Trading Membership;
 - b) A Limited Trading Member or a partner or representative of a Limited Trading Member shall not, as such Limited Trading Member or partner or representative, be entitled to be a member of the Exchange's Governing Board or of any other Board, Council or Committee of the Exchange or any Segment of the Exchange and shall not, as such Limited Trading Member or partner or representative, be entitled to hold any office or post in the Exchange or any Segment of the Exchange; and

- c) A Limited Trading Member shall not, as a Limited Trading Member, be entitled to voting rights on any matter save and except on resolution to be passed by the members of the Exchange for amending the Rules or Bye-laws of the Exchange which would prejudicially affect the rights of Limited Trading Members; Provided always that the provisions of sub-clause (iii) above shall not entitle a Limited Trading Member to initiate or move any resolution but to merely vote on a resolution of the nature described herein and the Rules, Bye-laws and Regulations of the Exchange shall be construed accordingly.
- iv) If a member holds one or more memberships of the Exchange which are not Limited Trading Memberships and holds one or more Limited Trading Memberships then such Limited Membership(s) shall not limit or prejudice such member's rights in respect of the first mentioned membership(s).
- v) The Exchange may from time to time modify the form prescribed in the Appendices hereto in relation to their applicability to Limited Trading Members or applicants for Limited Trading Membership or may prescribe other forms for Limited Trading Members or applicants for Limited Trading Membership.
- vi) The register of members maintained by the Exchange pursuant to Rule 64 shall also indicate, in respect of each Limited Trading Member, that such member is a Limited Trading Member.

8.7. CORPORATE MEMBERSHIP / COMPOSITE CORPORATE MEMBERSHIP RULES (19 TO 9B)

8.7.1. Mode of formation of a Corporate company

- If two or more Corporate Membership Rights of a member are clubbed in a single entity it is called as **Composite Corporate Membership**.
- Any 7 or more persons can form a company. If it is to be a private company, any 2 or more persons can do so by subscribing to the Memorandum of Association. Such a company may be limited by shares, by assets i.e. Guarantee or with unlimited liability.

| Chief Operating Officer | Committee of Executives |
|--|---|
| <p>Considers and approves the following applications as per the powers delegated by Board of Directors</p> <ul style="list-style-type: none"> • Change in designated directors. • Change of name of the Company- • Alterations to the Memorandum & Articles of Association- • Reclassification/Increase in Authorized Share Capital • Appointment of Representative Members- • Change in the paid-up capital, shareholding pattern and redemption of redeemable preference shares not amounting to transfer of membership right or change in management. | <p>Considers the following applications as per the powers delegated by Board of Directors.</p> <ul style="list-style-type: none"> • Application for membership- • Change in the paid-up capital & shareholding pattern amounting to transfer of membership right or change in management • Change in the status of partnership firm. • Application for Clearing House Member <p>Considers and approves the following applications: Reactivation of BOLT TWS/Re-start of business.</p> |

- The company is required to nominate 2 designated directors with a minimum of 2 years experience. The designated directors should be above 25 years of age and should not be designated directors of any other broking company.

Firms eligible under Nomination: As per Rule (19A(a))

- A company as defined by the Companies Act, 1956, becomes eligible to become a member of the exchange if such a company is formed in accordance with the provisions of section 322 of the Act, wherein majority of the directors are shareholders of the company and also members of the company having unlimited liability.

However, Central Government can relax this clause and admit IFCI, IDBI, LIC, GIC, UTI, ICICI and their subsidiaries and the subsidiaries of the SBI, or any Nationalized bank set up for providing merchant banking services, buying & selling securities and other similar activities.

8.7.2. Firms eligible under Nomination: As per { 19A(b) }

- A company as defined by the Companies Act, formed under the provisions of section 12 of the Companies Act, 1956 becomes eligible to become members if they undertake to comply with financial requirements as may be specified by SEBI for registration as per SEBI Act, 1992.

8.7.3. Documents required to be submitted by an applicant for corporate membership

- Form A-2 is to be filled and the two annexure-I & II should be duly filled in by the Designated Directors along with other documents prescribed by the Exchange and the Securities and Exchange Board of India and sent to the Exchange.

8.8. COMPOSITE CORPORATE MEMBERSHIP (CCM) (RULE 19B)

Composite Corporate Membership is formed when

- (i) A company formed and nominated by more than 1 member of the exchange is admitted as a corporate member in place of such members, or
- (ii) A corporate member of the exchange acquires more than one membership right by nomination OR in any other manner (i.e. fresh membership)

Such additional membership right is called **Component membership** and the concerned member is called **Composite Corporate Member (CCM)**.

8.8.1. Additional Features:

Eligibility criteria for admission as a Composite Corporate Member, is similar to that of admission as a corporate member.

- (i) A CCM shall not hold more than such number of memberships rights as decided by the GB from time to time.
- (ii) A CCM shall pay the Base Minimum Capital in respect of each membership.
- (iii) A CCM shall pay entrance fee, admission fee, annual subscription and fees payable to SEBI & furnish membership security in respect of each component member.
- (iv) Networth will be computed as per SEBI dictate.
- (v) A CCM shall have only one trading right and only one representative member.

- (vi) A CCM may resign from the membership right associated with any of its component membership only after a period of 2 years or from the date of acquisition. However, liabilities, if any will be still borne by the member.
- (vii) A person may be nominated in his place. There is only one set of Accounts for the CCM
- (viii) Any action by SEBI, Exchange, any Committee or official of the Exchange by way of warning, fine, censure, suspension, expulsion, default, and withdrawal will be applicable to all the components. Then all the rights of nomination shall vest with the Exchange.
- (ix) If a CCM is disentitled or disqualified from continuing as a member, the CCM shall cease & will vest with the exchange.

8.9. ADDITIONAL RULES FOR A CORPORATE MEMBER (RULE 257A):

- Articles of Association of a member shall contain such provisions as the GB may require from time to time.
- In case of a Pvt. Ltd. Co. formed under Rule 19A(a), the director of the company who are members of the Exchange shall always hold 51 % of the issued capital of the company and in the case of Public Ltd. Company, the director of the company shall always hold a 40% of the issued capital of the company.
- The name, Memorandum and Articles of Association, shareholding, capital shall not be altered without prior approval of the Governing Board.
- A Designated Director can be appointed only with the prior permission of the Governing Board.
- If there is a change in the shareholding of the company which is not acceptable to Board or if a Director appointed is not acceptable to the Board then the member company can be expelled by the Board. Caution to be exercised in deciding the capital structure.

8.10. GENERAL POINTS THAT NEED TO BE BORNE IN MIND FOR BECOMING A CORPORATE MEMBER:

- Form IA (available with the Registrar of companies-ROC) to be filled & submitted to the ROC for approval of the name of the company, prior to the formation of a company.

- Draft of the main objectives with regard to M & AOA to be given in the explanatory note.
- On conversion, the Excise department is to be told, for fresh registration. Also, the shops & establishments Authority, the PF authorities & ESI are to be told.
- Fresh identity card for entry into the BSE to be obtained
- A new bank account for the corporate entity to be obtained. To care of the cheques coming in the old name, the old individual account also needs to be maintained.
- It is advisable to get trained in the nuances of the market by taking the courses in the Training Institute.

8.11. AMALGAMATION / MERGER (A/M) OF TWO CORPORATE MEMBERS OF THE EXCHANGE OR A&M OF A CORPORATE MEMBER WITH NON-MEMBER COMPANY OR DEMERGER (RULE 257 B)

In order to facilitate the corporate members of the Exchange to acquire the synergy through the route of A &/ or M and Demerger, the Governing Board with the approval of SEBI has inserted the said Rule

Salient features:

- Provisions of Rule 23 should be complied i.e. inviting objections, if any, for such application of Amalgamation/Merger and Demerger.
- Prior permission of the Governing Board and the Securities and Exchange Board of India should be obtained.

8.11.1. In case of amalgamation of corporate member with Non-member company:

- Transferee Company shall be a member of the Exchange in the place of Transferor. Registration, if any, with any segment of the Exchange shall vest in the transferee.
- Any nominee of the transferor company, who is on the Board of the Exchange or any committee of any segment of the Exchange, shall continue to be a member (but as a nominee of the transferee company till the time he was appointed or ceases to be a designated director/fulltime director.)

- Transferee Company shall be bound by all the rights and obligation of Transferor and also to honor all the liabilities of the transferor.

8.11.2. In case of amalgamation of two corporate members of the Exchange:

All the aforesaid conditions are applicable subject to the following modifications:

- Transferee Company shall be a member of the Exchange in the place of Transferor and all its membership right shall vest in the Transferee
- Registration, if any, with any segment of the Exchange shall vest in the transferee
- If nominee of the two or more corporate members are on the Board of the Exchange or any committee of any segment of the Exchange, then the transferor & transferee shall jointly inform who will cease to be such director or member.
- If the transferor and/or transferee are holding common registration on any of the segment of the Exchange, then the transferor & transferee shall jointly inform which registration will cease.

8.12. DE-MERGER

In the case of reconstruction / demerger, the transferor's membership right will vest in a wholly owned subsidiary of the transferor company and aforesaid clauses will be applicable.

8.12.1. Procedure for membership of cash segment

- i) Submit the application, along with necessary documents to the Committee of Executives.
- ii) After scrutinizing the documents, application is placed before the Committee of Executives.
- iii) On approval by the Committee of Executives, letter of election is issued.
- iv) On the payment of the BSE membership fees, the letter of admission is issued
 - a) The clearing number is allotted in this letter of admission. It has to be checked in the Clearing House whether the particular clearing number is

vacant for allotment.

- b) The date of the letter of admission is the date of the admission to BSE membership.
- v) On issue of letter of admission, entry is made in the member register.
- vi) Once the letter of admission is issued, the applicant has to fill in Form A for SEBI registration. The form is certified by BSE officials (DGM - Membership) and the same along with SEBI registration fees, which is Rs 10 per crore of turnover and the other documents is forwarded to SEBI by BSE.
- vii) Once, SEBI registration is obtained, the applicant's authorized person has to come and collect the SEBI registration certificate and acknowledge on SEBI's acknowledgment slip and BSE's letter.
- viii) Conditions mentioned in Letter of admission have to be complied. All proofs are checked thoroughly.
- ix) Department of Operations and Trading (DOT) is informed about the compliance and necessary form is filled to enable DOT to enter the Clearing number allotted to the applicant company to be entered in the BOLT member master.
- x) Other departments are informed about compliance of all conditions and commencement of business.
- xi) BSE members are informed about commencement of business, by way of a notice.

8.12.2. Checklist for an Applicant to the Corporate Membership (conversion/transfer)

Check List for TRADING MEMBERSHIP

Note: Please request you to submit the forms in the serial number as mentioned in the checklist for faster processing of the application.

| Sr. No. | Documents to be given | Documents submitted | Remarks |
|---------|-----------------------|---------------------|---------|
| 1 | Appendix A- II | | |
| 2 | Auditors Certificate | | |

| | | | |
|----|--|--|--|
| 3 | Annexure - II (Details of the Company) | | |
| 4 | Memorandum and Articles of Association * | | |
| 5 | Prospectus of Statement in lieu of prospectus * | | |
| 6 | Director Report, Auditors report, Annual Accounts (For the Last Three years) * | | |
| 7 | Returns filed Assessment Orders /Statement of Income / wealth (For the last three years) * | | |
| 8 | Short History of the company and its activities on letter head of company signed by directors. | | |
| 9 | Capital Structure (Authorized capital, Issued capital and subscribed capital (On the members letter head) | | |
| 10 | Shareholding Pattern in respect of each share. (Sr. No. Name of the shareholder Percentage of Holding and Amount Holding) *(In case a member has a corporate entity as its shareholders then the shareholding pattern of that corporate entity would required to be submitted till the last individual shareholder is identified) | | |
| 11 | Board resolution authorizing the directors to apply for membership. | | |
| 12 | Net worth Certificate (certified by C.A.) & statement of calculation as per the annexure attached. | | |
| 13 | Balance Sheet (Including All schedules) in concurrent to the Net worth statement submitted. | | |
| 14 | NOC / Status report from the Stock Exchange (s) where an applicant company is a member (s). | | |
| 15 | At least one reference from the banker | | |
| 16 | Recommendation of two existing members on stamp paper of Rs. 100/- duly signed by Designated Directors). | | |
| 17 | Details of all the Directors of the applicant company [Name, Qualification, Address, brief market experience in years, shareholding in the company] on letter head signed by directors. | | |
| 18 | Certified PAN Card Copy | | |

* Documents pertaining to the Company duly certified by a chartered accountant as true & correct

8.12.3. Documents to be submitted by each Designated Directors

*** THESE DOCUMENTS ARE TO BE SUBMITTED ONLY AFTER APPLICANT RECEIVES THE LETTER OF ACCEPTANCE OF OFFER.

Name of the Designated Director

| Sr. No. | Documents to be given | Documents submitted | Remarks |
|---------|--|---------------------|---------|
| 1 | Annexure - I (format to be provided after acceptance of offer) | | |

| | | | |
|----|--|--|--|
| 2 | Board Resolution Authorizing appointment of designated director | | |
| 3 | A brief Bio Data of the Designated Director (self signed) (on plain paper/on letter head of individual Director) | | |
| 4 | Certificates of educational Qualifications (Certified by a CA) | | |
| 5 | Certificates relating to the Experience in the Capital market (Certified by a CA) | | |
| 6 | Balance Sheet and P & L Account for last three years AND / OR Assessment orders &/or statement of Income /wealth &/ or copy of Income tax returns for the last three assessment | | |
| 7 | If the Designated Director is a member of any other Stock Exchange in his individual capacity then the Designated | | |
| 8 | At least one reference from the banker. | | |
| 9 | Certified PAN card copy | | |
| 10 | A Certificate to be submitted on the letterhead of C.A. as per following format: This is to certify that <name of proposed designated director's of <name of the applicant company.> possesses a minimum of 2 years capital market experience as required under the provisions contained in Rule 8 Sub-rule 4A sub-clause (v) of Securities Contract (Regulation) Rules. | | |
| 11 | Copy of Form No. 29 and 32 filed with ROC | | |
| 12 | Certificate of BCFM/NCFM Exam conducted by BSE/NSE | | |

8.12.4. Check List for Individual Membership

Note: Please request you to submit the forms in the serial number as mentioned in the checklist for faster processing of the application

***** THESE DOCUMENTS ARE TO BE SUBMITTED ONLY AFTER APPLICANT RECEIVES THE LETTER OF ACCEPTANCE OF OFFER.**

| | |
|----|--|
| 1. | Age proof (Individual applying should be between 21 years and 60 years of age) and copy of educational qualifications (duly certified by CA or Notary) |
| 2. | Certificates of experience (duly certified by CA) |
| 3. | Your bio-data giving name, educational qualification, date of birth , age as on date of application and complete details of experience in capital market |
| 4. | * Profit & Loss a/c & Balance Sheet for last three years preceding the date of the application along with annexure thereto and the Net-Worth certificate for last three years |
| 5. | * Latest possible Profit & Loss a/c & Balance Sheet, along with the Present net-worth certificate for the said period. |
| 6. | * Statement of investment (quoted & un-quoted) at cost & market price for the last 3 years and for the period for which latest documents are submitted. |

| | |
|-----|--|
| 7. | * Copy of Income-tax & wealth tax Assessment Orders, computation of income & wealth for the last three years and details of taxes paid for these years. |
| 8. | No objection certificate from the Stock Exchange of which you are a member. |
| 9. | * Confirmation of loans & advances given as per the Balance Sheet as on 31 st March, of the preceding financial year & for the period for which latest documents are submitted. |
| 10. | Such other documents as may be called for and be required by the Exchange |
| 11. | Recommendation from the two members of the Exchange in the enclosed format. |

[*] Documents must be certified by a Chartered Accountant as true & correct.

8.12.5. Format for calculation of networth

(For Trading Members of the Equity Segment of the Exchange other than Clearing Members of the Derivatives Segment)

Statement of Networth as on---

| Sr. No. | Particulars | Rs. | Rs. | Rs. |
|---------|---|-----|-----|-----|
| 1. | Listed (Quoted) Investments | | | |
| 2. | Market value of listed (quoted) securities (other than Govt.) in the name of member (forming part of the Balance Sheet) | | | |
| 3. | Margin of 30% on Market value of listed (quoted) securities (other than Government), i.e., 30% of 2 | | | |
| 4. | Net value of listed (quoted) Investments (other than Govt), i.e., 2-3 | | | |
| 5. | Market value of listed (quoted) securities (Government) in the name of member (forming part of the Balance Sheet) | | | |
| 6. | Margin of 10% on Market value of listed (quoted) securities (Government), i.e., 10% of 5 | | | |
| 7. | Net value of listed (quoted) Investments (Govt), i.e., 5-6 | | | |
| 8. | <i>Unlisted (unquoted) Investments</i> | | | |
| 9. | Book value of Unlisted (unquoted) Securities | | | |
| 10. | Margin of 50% on Book Value of Unlisted (unquoted) Securities i.e. 50% of 9 | | | |
| 11. | Net value of Unlisted (unquoted) Investments i.e. 9-10 | | | |
| 12. | <i>Other Investments at cost, if any</i> | | | |
| 13. | <i>Total Net Investments (4+7+11+12)</i> | | | |
| 14. | Fixed Assets (used for the purpose of business) including land & building | | | |
| 15. | Receivables which are less than 3 months old | | | |
| 16. | <i>Loans, Advances and Deposits</i> | | | |
| 17. | Loans and advances excluding loans and advances given to associates and related entities | | | |
| 18. | Deposits excluding non-refundable deposits | | | |
| 19. | Cash & Bank Balance | | | |
| 20. | Other Assets, if any, (specify), which are used for the purpose of business | | | |
| 21. | <i>Total Assets (13+14+15+17+18+19+20+21)</i> | | | |

| | | | | |
|-----|----------------------------------|--|--|--|
| 22. | Current Liabilities | | | |
| 23. | Long Term Liabilities | | | |
| 24. | <i>Total Liabilities(23+24)</i> | | | |
| 25. | <i>Net Worth (22-25)</i> | | | |

Notes: -

1. For computation of loans and advances and sundry debtors (arising from securities operations and others) as a component of current assets, all advances / loans and sundry debtors other than those 22 arising out of securities dealing have to be excluded. Only such loans, advances and sundry debtors arising due to the securities dealings are to be included as current assets for the purpose of networth computation.
2. Details of items comprising investments, current assets, current liabilities and long term liabilities should be given separately.
3. The following non-allowable assets should not be included in any head, while computing the networth:-
 - (a) Pre-paid Expenses
 - (b) Losses/Accumulated losses
 - (c) Miscellaneous Expenditure
 - (d) Deferred Expenditure
 - (e) Bad deliveries
 - (f) Intangible assets
 - (g) Doubtful debts / advances not provided for
 - (h) Non-refundable deposit
 - (i) Loans and advances given to related entities,
 - (j) Advances against capital expenditure.

8.13. GUIDELINES FOR SUBMITTING DOCUMENTS FOR SUB-BROKER REGISTRATION.

8.13.1. Debt segment

Introduction

The capital market comprises of equities market and debt market. Debt market is a market for the issuance, trading and settlement in fixed income securities of various types. Fixed income securities can be issued by a wide range of organizations including the Central and State Governments, public bodies, statutory corporations, banks and

institutions and corporate bodies. The participants in the whole sale debt segment could be Banks & Financial Institutions, Corporate Bodies, Legal entities, etc.

Steps for Debt Segment Membership:

1. Submit the application to Membership Department
2. After scrutinizing the documents, application is placed before the MD & CEO for necessary approval.
3. After approval issue notices for the same.
4. Payment of annual charges
5. After verifying the necessary documentation, intimation to ISD department for necessary updation in the system.

Net Worth requirement is: 1.50 Crore Annual

Status Report

Member of the Exchange have requirements for status report for the following purpose:

- (i) Registration as Portfolio Manager with Securities Exchange Board Of India,
- (ii) Registration as underwriter with Securities Exchange Board Of India
- (iii) Membership with Other Exchange
- (iv) Empanelment with various Banks and Financial Institution as a Stock Broker.

The status report is being issued to a member after obtaining report on member status from the various departments like Clearing House, Investor Service Cell, Clearing & Settlement Department, Inspection Department/legal department.

8.13.2. Code of conduct for broker

The Code of Conduct for members has been prescribed by SEBI.

A. GENERAL

Integrity: A stock-broker, shall maintain high standards of integrity, promptitude and fairness in the conduct of all his business. If a member cheats, a client can approach SEBI or Investor services cell of the exchange.

Exercise of Due Skill and Care: A stock-broker, shall act with due skill, care and diligence in the conduct of all his business.

Manipulation: A stock-broker shall not indulge in manipulation, fraudulent or deceptive transactions or schemes or spread rumors with a view to distorting

market equilibrium or making personal gains.

Malpractices: A stock-broker shall not create false market either singly or in concert with others or indulge in any act detrimental to the investors' interest or which leads to interference with the fair and smooth functioning of the market. A stock-broker shall not involve himself in excessive speculative business in the market beyond reasonable levels not commensurate with his financial soundness.

Compliance with Statutory Requirements: A stock-broker shall abide by all the provisions of the Act and the rules, regulations issued by the Government, the Board and the stock exchange from time to time as may be applicable to him.

B. DUTY TO THE INVESTOR

- (i) Execution of Orders:** A stock-broker, in his dealings with the clients and the general investing public, shall faithfully execute the orders for buying and selling of securities at the best available market price and not refuse to deal with Small Investors merely on the ground of the volume of business involved. A stock-broker shall promptly inform his client about the execution or non-execution of an order, and make prompt payment in respect of securities sold and arrange for prompt delivery of securities purchased by clients.
- (ii) Issue of Contract Note:** A stock-broker shall issue without delay to his client a contract note for all transactions in the form specified by the stock exchange.
- (iii) Breach of Trust:** A stock-broker shall not disclose or discuss with any other person or make improper use of the details of personal investments and other information of a confidential nature of the client which he comes to know in his business relations.
- (iv) Business and Commission:** A stock-broker shall not encourage sales or purchases of securities with the sole object of generating brokerage or commission. A stock-broker shall not furnish false or misleading quotations or give any other false or misleading advice or information to the clients with a view of inducing him to do business in particular securities and enabling himself to earn brokerage or commission thereby.
- (v) Business of Defaulting Clients:** A stock-broker shall not deal or transact business knowingly, directly or indirectly or execute an order for a client who

has failed to carry out his commitments in relation to securities with another stock-broker. A member can transact business for or do share brokerage with an expelled member but with the permission of the Board of Directors.

(vi) Fairness to Clients: A stock-broker, when dealing with a client, shall disclose whether he is acting as a principal or as an agent and shall ensure at the same time, which no conflict of interest arises between him and the client. In the event of a conflict of interest, he shall inform the client accordingly and shall not seek to gain a direct or indirect personal advantage from the situation and shall not consider client's interest inferior to his own.

(vii) Investment Advice: A stock-broker shall not make a recommendation to any client who might be expected to rely thereon to acquire, dispose of, retain any securities unless he has reasonable grounds for believing that the recommendation is suitable for such a client upon the basis of the facts, if disclosed by such a client as to his own security holdings, financial situation and objectives of such investment. The stock-broker should seek such information from clients, wherever he feels it is appropriate to do so.

(viii) Competence of Stock Broker: A stock-broker should have adequately trained staff and arrangements to render fair, prompt and competent services to his clients.

C. STOCK-BROKERS VIS-A-VIS OTHER STOCK-BROKERS

Conduct of Dealings:

A stock-broker shall co-operate with the other contracting party in comparing unmatched transactions. A stock-broker shall not knowingly and willfully deliver documents which constitute bad delivery and shall co-operate with other contracting party for prompt replacement of documents which are declared as bad delivery.

Protection of Clients Interests: A stock-broker shall extend fullest co-operation to other stockbrokers in protecting the interests of his clients regarding their rights to dividends, bonus, shares, right shares and any other right related to such securities.

Transactions with Stock-Brokers: A stock-broker shall carry out his transactions with other stock-brokers and shall comply with his obligations in completing the settlement of transactions with them.

Advertisement and Publicity: A stock-broker shall not advertise his business

publicly unless permitted by the stock exchange.

Inducement of Clients: A stock-broker shall not resort to unfair means of inducing clients from other stock-brokers.

False or Misleading Returns: A stock-broker shall not neglect or fail or refuse to submit the required returns and not make any false or misleading statements on any returns required to be submitted to the Board and the stock exchange.

8.13.3. Code of conduct for sub-broker

The Securities and Exchange Board of India (SEBI) has also prescribed a Code of Conduct for the Sub-brokers, with a view to ensure that the functioning of the capital market is fair, healthy and efficient as also to ensure that the sub-brokers do not indulge in dishonorable, disgraceful or disorderly or improper conduct on the stock exchange nor shall they willfully obstruct the business of the stock exchange. It is expected that the sub-brokers shall comply with the Rules, Bye-laws and Regulations of the stock exchange. The Code of Conduct has been divided into four broad areas as given under:

- a) **General** -This broadly deals with the general role of the sub-broker while conducting the business for and on behalf of the investors. They have to maintain high standards of integrity and exercise due skill and care.
- b) **Duty to the Investor** -This enumerates the duty of the sub-broker towards the investors, particularly in relation to the execution of the orders of the Investors;
- c) **Sub-Brokers vis-à-vis other Stock-Brokers** -This deals with the conduct of the sub-broker with the other stock-brokers in the course of conducting business with them. Emphasizing the duties of the sub-broker in settlement of trades with the other stock-brokers and the co-operation that they have to render to each other; and.
- d) **Sub-Brokers vis-à-vis Regulatory Authorities** - This section deals with the role of the sub- broker vis-à-vis the Regulatory Authorities. The sub-brokers have to furnish all the information that is required by the regulatory authorities and comply with the Rules, Bye-laws and Regulations of the Stock Exchange.

The Code of Conduct, as specified at Schedule II under Regulation 15 of the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations 1992, for Sub-Brokers is as follows:

General INTERGRITY

A sub-broker shall maintain high standards of integrity, promptitude and fairness in the conduct of all investment business.

EXERCISE OF DUE SKILL AND CARE

A sub-broker shall act with due skill, care and diligence in the conduct of all investment business.

DUTY TO THE INVESTOR

EXECUTION OF ORDERS

A sub-broker, in his dealings with the clients and the general investing public, shall faithfully execute the orders for buying and selling of securities at the best available market price. A sub-broker shall promptly inform his client about the execution or non-execution of an order and make payment in respect of securities sold and arrange for prompt delivery of securities purchased by clients.

ISSUE OF PURCHASE OR SALE NOTES

A sub-broker shall issue promptly to his client's purchase or sale notes for all the transactions entered into by him with his clients.

A sub-broker shall issue promptly to his clients scripwise split purchase or sale notes and similarly bills and receipts showing the brokerage separately in respect of all the transactions in the specified form.

A sub-broker shall only split the contract notes client-wise and scripwise originally issued to him by the affiliated broker into different denominations.

A sub-broker shall not match the purchase and sale orders of his clients and each order must invariably be routed through a member-broker of the stock exchange with whom he is affiliated.

BREACH OF TRUST

A sub-broker shall not disclose or discuss with any other person or make improper use of the details of personal investments and other information of a confidential nature of the client which he comes to know in his business relationship.

BUSINESS AND COMMISSION

A sub-broker shall not encourage sales or purchases of securities with the sole object of

generating brokerage or commission.

A sub-broker shall not furnish false or misleading quotations or give any other false or misleading advice or information to the clients with a view of inducing him to do business in particular securities and enabling himself to earn brokerage or commission thereby.

A sub-broker shall not charge from his clients a commission exceeding one and one-half of one percent of the value mentioned in the respective sale or purchase notes.

BUSINESS OF DEFAULTING CLIENTS

A sub-broker shall not deal or transact business knowingly, directly or indirectly or execute an order for a client who has failed to carry out his commitments in relation to securities and is in default with another broker or sub-broker.

FAIRNESS TO CLIENTS

A sub-broker, when dealing with a client, shall disclose that he is acting as an agent and shall issue appropriate purchase/sale note ensuring at the same time, that no conflict of interest arises between him and the client. In **the event of a conflict of interest, he** shall inform the client accordingly and shall not seek to gain a direct or indirect personal advantage from the situation and shall not consider clients' interest inferior to his own.

INVESTMENT ADVICE

A sub-broker shall not make a recommendation to any client who might be expected to rely thereon to acquire, dispose of, retain any securities unless he has reasonable grounds for believing that the recommendation is suitable for such a client upon the basis of the facts, if disclosed by such a client as to his own security holdings, financial situation and objectives of such investment. The sub-broker should seek such information from clients, wherever they feel it is appropriate to do so.

COMPETENCE OF SUB-BROKER

A sub-broker should have adequately trained staff and arrangements to render fair, prompt and competent services to his clients and continuous compliance with the regulatory system.

SUB-BROKERS VIS-A-VIS STOCK BROKERS

CONDUCT OF DEALINGS:

A sub-broker shall co-operate with his broker in comparing unmatched transactions. A

sub-broker shall not knowingly and willfully deliver documents, which constitute bad delivery. A sub-broker shall co-operate with other contracting party for prompt replacement of documents, which are declared as bad-delivery.

PROTECTION OF CLIENTS INTERESTS:

A sub-broker shall extend fullest co-operation to his stockbroker in protecting the interests of their clients regarding their rights to dividends, right or bonus shares or any other rights relating to such securities.

TRANSACTIONS WITH BROKERS

A sub-broker shall not fail to carry out his stock broking transactions with his broker nor shall he fail to meet his business liabilities or show negligence in completing the settlement of transactions with them.

LEGAL AGREEMENT BETWEEN BROKERS

A sub-broker shall execute an agreement or contract with his affiliating brokers who would clearly specify the rights and obligations of the sub-broker and the principal broker.

ADVERTISEMENT AND PUBLICITY

A sub-broker shall not advertise his business publicly unless permitted by the stock exchange.

INDUCEMENT OF CLIENTS

A sub-broker shall not resort to unfair means of inducing clients from other brokers.

SUB-BROKERS VIS-A-VIS REGULATORY AUTHORITIES

GENERAL CONDUCT

A sub-broker shall not indulge in dishonorable, disgraceful or disorderly or improper conduct on the stock exchange nor shall he willfully obstruct the business of the stock exchange. He shall comply with the rules, bye-laws and regulations of the stock exchange.

FAILURE TO GIVE INFORMATION

A sub-broker shall not neglect or fail or refuse to submit to the Board or the Stock exchange with which he is registered, such books, special returns, correspondence, documents and papers or any part thereof as may be required.

FALSE OR MISLEADING RETURNS

A sub-broker shall not neglect or fail or refuse to submit the required returns and not

make any false or misleading statements on any returns required to be submitted to the Board or the stock exchanges.

MANIPULATION

A sub-broker shall not indulge in manipulative, fraudulent or deceptive transactions or schemes or spread rumors with a view to distorting market equilibrium or making personal gains.

MALPRACTICES

A sub-broker shall not create false market either singly or in concert with others or indulge in any act detrimental to the public interest or which leads to interference with the fair and smooth functions of the market mechanism of the stock exchanges. A sub-broker shall not involve himself in excessive speculative business in the market beyond reasonable levels not commensurate with his financial soundness.

8.14. CLIENT REGISTRATION

SEBI has directed all the members of the Stock Exchanges to maintain a database of their clients. This concept has been called as **"KNOW YOUR CLIENT"**. SEBI has devised standard formats for the Client Registration and a Broker Client agreement. The format of client registration and client-broker agreement (*Annexure 7 & 8*) are given in Stock Brokers and Sub-Brokers Rules, 1992. This information is required to be maintained not only by the members but also by the sub-brokers vis-à-vis their clients. Members may seek additional information, if any, so as to satisfy themselves about the antecedents of their clients. Different formats have been prescribed for individuals and non-individuals. SEBI has put onus on the members to provide for client details as and when necessary.

In respect of small investors, an exemption may be made for the Annual Income and Market Value of Portfolio details at points 9, 10, & 11 of the individual client registration application form, in cases where the Annual gross turnover (i.e. purchases + sales) of a client is not more than Rs.5 lakh. If the clients' gross turnover exceeds Rs.5 lakh, it is desirable that a member gets the above details (*Annexure 9 & 10*). However, the member may at their discretion waive the above requirements where they are personally satisfied about the risk profile of the client. This requirement may also be waived for SEBI registered FIIs / FIs and Mutual Funds that already have agreement with the members. In such cases a copy of the agreement will have to be provided by the member as and when necessary.

8.15. SEGREGATION OF CLIENT'S FUNDS & SECURITIES (BYE-LAW 247A)

The main features of this Bye-law are:

- (i) Segregation of clients' monies from the members' own money by opening and operating separate bank accounts for this purpose.
- (ii) Segregation of clients' securities from the member's own securities and maintenance of separate accounts for this purpose.
- (iii) No payment for transactions in which the member is taking a position as a principal is allowed to be made from the clients' account.
- (iv) Issuance of the Contract Note to the clients within 24 hours of the execution of the transactions,
- (v) Payment of money to clients or delivery of securities to clients within 48 hours of the pay-out.

The principles and the circumstances under which transfer from clients' account to member broker's account are allowed are enumerated below: -

- (a) Every member should keep such books of accounts, as are necessary, to show and distinguish in connection with his business as a member
 - (i) Monies received from or on account of and monies paid to or on account of each clients and
 - (ii) The monies received and the monies paid on member's own account.
- (b) Every member who holds or receives money on account of a client is required to forthwith deposit such money in designated client account. Member may keep one consolidated client account **for all the clients or more** accounts. If a member receives a cheque /draft representing in part money due to the member, he shall pay the whole of such cheque or draft into the clients' account and effect subsequent transfer as laid down below:

Only money properly required for payment to or towards payment of a debt due to the member from clients or money drawn on clients' authority, or money in respect of which there is a liability of clients to the member, provided that the money so drawn should not exceed the total of the money so held for the time being for each such client.

The purposes for which withdrawals are allowed from the clients' account are mainly

as under:

- (i) Margin payment
- (ii) Valan Obligation (Settlement Dues)\
- (iii) Earnings (Brokerage) from the clients.

It is observed that members generally use clients' account for making payment for following purposes, which are not allowed:

- (i) Office Expenses such as, Salaries, Telephone Bills, TDS payments, Purchase of Office Equipment etc.
- (ii) Towards Base Minimum and additional Capital
- (iii) Towards payment to Exchange for payment of fines, general charges etc.

It is compulsory for all member-brokers to keep separate accounts for clients' securities and to keep such books of accounts, as maybe necessary, to distinguish such securities from his/their own securities. Such accounts for clients' securities shall, inter-alia, provide for the following:

- (i) Securities received for sale or kept pending delivery in the market;
- (ii) Securities fully paid for, pending delivery to clients;
- (iii) Securities received for transfer or sent for transfer by the member, in the name of client or his nominee(s);
- (iv) Securities that are fully paid for and are held in custody by the member as security/margin etc. The member shall obtain proper authorization from the client for the same.
- (v) Fully paid for clients' securities registered in the name of the member, if any, towards margin requirements etc.;

It is compulsory for all members to keep the moneys of the clients and their own money in separate bank accounts.

8.16. SUB-BROKER

- (i) "Sub-broker" **means any person not being a member of a Stock Exchange who acts on behalf of a stock-broker as an agent or otherwise for assisting the investors in buying, selling or dealing in securities through such stock-brokers.**

Sub clause (b) under clause (1) of Section 5 of SEBI (Stock Brokers & Sub-Brokers) Rules, 1992, further lays down the **condition** for grant of a certificate to sub-broker as, " 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 the Board informed about the number, nature and other particulars of the complaints received".

All Sub-brokers are required to obtain a Certificate of Registration from SEBI in accordance with SEBI (Stock Brokers & Sub-Brokers) Rules and Regulations, 1992, **without which they are not permitted to deal in securities**. SEBI has directed that no broker shall deal with a person who is acting as a sub-broker unless he is registered with SEBI and it shall be the responsibility of the broker to ensure that his clients are not acting in the capacity of a sub-broker unless they are registered with SEBI as a sub-broker or are recognized by the Stock Exchange as Remisier.

SEBI has stated that transfer deeds bearing rubber stamps on the reverse thereof other than those of Clearing Members of the Stock Exchanges / Clearing House / Clearing Corporations, SEBI registered Sub-brokers and Remisiers registered with the Stock Exchanges shall be treated as bad delivery in Stock Exchanges. This is applicable to all transfer deeds dated July 1, 1997 and thereafter.

The registered sub-broker can transact only through the member(s) who has recommended his application for registration by signing 'Form C'. Form B is the application Form for registration as Sub-brokers and Form C is recommendation letter to be given by the member with whom the Sub-broker is affiliated. The Sub-broker can do business with more than one broker; however, he will have to obtain **separate registration** in each case. It is mandatory for the sub-broker to disclose the name of all other broker(s) where he is having direct or indirect interest. It is the responsibility of the member to report defaults, if any, of his sub-brokers to all other brokers with whom the sub-broker is affiliated.

It is mandatory for members to enter into an agreement with all the sub-brokers in the format prescribed by SEBI. The agreement lays down the rights and responsibilities of members as well as sub-brokers. The Agreement between the broker and sub-broker can be terminated by giving notice in writing of not less than 6 months by either party.

SEBI has clarified that members of Stock Exchanges executing transactions of his clients through the members of other Exchanges are to be treated as sub-brokers. These members of the Stock Exchanges who are acting as sub-brokers through the

members of other exchanges should obtain Certificate of Registration from SEBI to act as a sub-broker under SEBI (Stock Brokers & Sub-Brokers) Rules & Regulations, 1992.

It is seen that a reasonably large amount of business is transacted by the member-brokers through sub-brokers who act for and on behalf of the members. It is advisable that in the interest of broker, he should get the books of accounts etc. of the sub-brokers affiliated to him, periodically inspected from a qualified Chartered Accountant.

- (ii) **Issue Of Confirmation Memo By Sub-Brokers** The sub-brokers appointed by a member are allowed to issue Confirmation Memo to their constituents in respect of the transactions entered into by them on their behalf. The Exchange has approved the format of the Confirmation Memo to be issued by the Sub-brokers to their constituents by adding Regulation 14.3 to the Rules, Bye-laws and Regulations of the Exchange. The format (Annexure 11) of the confirmation Memo - Form C (Regulation 14.3) duly approved by the Governing Board and also the relevant clauses under the Bye- laws of the Exchange, which are required to be printed on the reverse of both the Contract Note and Confirmation Memo.
- (iii) **Brokerage Charged By Sub-Brokers** Appendix ' , K to the Regulation 14 of the Rules, Bye-laws and Regulations of the Exchange prescribes the Official Scale of Brokerage. As per this Regulation the brokerage charged by a member shall not exceed Rs.0.25 per share/Debenture or 2.5% of the contract price per share/debenture of Joint Stock Companies, whichever is higher. A sub-broker is not allowed to charge from his clients a commission exceeding one and one half of one percent of the value mentioned in the respective sale or purchase notes. As per the Confirmation Memo prescribed by **the Exchange the sub-broker must disclose**, among other things, in the confirmation memo, the Brokerage payable to affiliated member and brokerage for sub-broker.
- (iv) **Books and Documents to be maintained by Sub-Brokers:** Sub clause (b) under clause (1) of Section 15 of Securities Contract Regulation Act specifies the books and documents required to be maintained by the sub-broker.

8.17. REMISIERS

A Remisier is a person who is engaged by a member primarily to solicit business in securities on a commission basis. Rule 216 to 235 of the Rules, Bye-laws & Regulations of the Exchange provide for appointment and regulation of Remisiers. The Remisiers

appointed by the members are required to be registered with the Exchange. In this connection, it is clarified that Remisier should not be an employee of any individual member or any organization other than the member concerned. The Remisier is expected to solicit business for a member and get commission thereon. He is not supposed to issue Contract notes, Confirmation memos or bills to the clients in his own name.

Arbitration

Arbitration between Member and non-member

Arbitration at BSE is a quasi judicial mechanism under the Rules, Bye-laws & Regulations (RBR) of the Exchange to redress disputes between Members and Non-members.

The Exchange has Regional Arbitration Centers (RACs) each at Chennai, Delhi, Kolkata and Mumbai. Arbitration References are required to be filed with the concerned RACs depending upon the geographical jurisdiction of each of the RACs as defined under RBR.

The panel of Arbitrators is constituted every year by the Board of Directors. The panel consists of professionals such as Retd. Judges, Solicitors/Advocates, Chartered Accountants, Company Secretaries etc. Each of the aforesaid RACs has separate Arbitration Panels to decide the matters filed under the concerned RAC.

As per the pecuniary jurisdiction the claims upto Rs. 10 Lacks are decided by a single Arbitrator and the claim above Rs. 10 lacks are decided by a bench of three Arbitrators. The role of the Exchange in the Arbitration proceedings is limited to providing secretarial/administrative assistance.

The Arbitrators hear the parties and pass the Award which is binding on the parties subject to appeal. Any party which is dissatisfied with the award of the Arbitrators can prefer an appeal with the Exchange against the said award within 15 days from the date of receipt of the award as provided under the RBR of the Exchange or alternatively can challenge the same in Court of Law.

If an appeal is preferred under the RBR, the same is decided by the bench of five Arbitrators. None of the Arbitrators who have heard and passed the Award would be a member of the Appeal bench. There is no further appeal to the Award passed by the Appellate bench of the Exchange; the remedy in such cases would be to challenge the same in Court of Law.

8.18. DELIVERY OF SECURITIES

Place of Delivery and Payment

Save and except as specifically provided otherwise, in the Rules, Bye-laws and Regulations, the delivery of all documents and papers and the payment in respect of all contracts to which these Bye-laws and Regulations apply shall be within the Fort Area of the City of Bombay and the parties shall be bound and deemed to give and take delivery in Bombay.

CHAPTER 9

CLEARING & SETTLEMENT

Trading Members can do transactions in the listed (companies which have signed listing agreement with the Exchange) as well as permitted securities (to trade in securities of the companies which are actively traded at other Regional Stock Exchanges but are not listed on BSE).

9.1. Rolling Settlements :

In order to bring about settlement efficiency and reduce settlement risk, the Group of 30 (commonly known as G-30) had recommended in 1989 that all secondary market across the globe should adopt a rolling Settlement cycle on T+3 basis by 1992, i.e. the trades should be settled by delivery of securities and payment of monies on third business day after the trade day.

With a view to implement the above recommendations, introduce the best international practices and to achieve higher settlement efficiency, trades in all the equity shares listed on the Exchange in CRS Segment, as mandated by SEBI, were required to be settled initially on T+5 basis w.e.f. December 31, As per the directive by SEBI, all transactions in all groups of securities in the Equity Segment and Fixed Income securities listed on the Exchange were required to be settled on T+3 basis w.e.f. April 1, Further, as per the mandate received from SEBI, the Exchange has since introduced the settlements for all groups of securities in the Equity Segment, "F" & "G" groups on T+2 basis w.e.f. from April 1, 2003.

Under rolling settlements, unlike in the "account period settlements", the trades done on a particular day are settled after a given number of business days instead of settling all trades done during an "account period" of a week or fortnight. A T+2 settlement cycle means that settlement of transactions done on T day (i.e. trade day), by exchange of funds and securities between the buyers and sellers respectively takes place on second business day (excluding Saturdays, Sundays, bank and Exchange trading holidays) after the trade day.

The transactions in securities of companies which have made arrangements for dematerialization of their securities with both the Depositories are settled only in demat mode on T+2 day on net basis, i.e., buy and sell positions of a Trading Member in the same scrip in the same settlement are netted and the net quantity and value is required to

be settled. However, transactions in securities of companies, which are in "Z" group or have been placed under "trade to trade" by the Exchange as a surveillance measure (i.e. "T" Group and "TS" Group) or transactions executed in 6 lakh series code (i.e. Selling Client can only be "FII") or odd lot transactions (odd lot segment - Exit Route) , they are settled only on a gross basis and the facility of netting of buy and sell transactions in such scrips is not available. However, money obligations in such scrips are settled on net basis.

For example, if a Trading Member buys and sells 100 shares of a company on the same day which is in "Z" group or on "trade to trade" basis, the two positions are not netted and the Trading Member has to first deliver 100 shares at the time of pay-in of securities and then receive 100 shares at the time of payout of securities on the same day. Thus, if one fails to deliver the securities sold at the time of pay-in, it is treated as a shortage and the relevant quantity is closed-out by the Exchange.

The transactions in 'F' group securities representing "Fixed Income Securities" and "G" group representing Govt. Securities for retail investors are also settled at the Exchange on T+2 basis.

However, the Trading Members will have either the Funds Pay-in or Funds Payout position in a settlement, as the funds obligations for the Trading Members/Custodians are netted for transactions across all groups of securities in the same settlement.

9.2. Settlement of obligations by Trading Members/Custodians:

The settlement of the trades (money and securities) done by a Trading Member on his own account or on behalf of his clients may be either through the Trading Member himself or through a SEBI registered custodian appointed by him/client. In case the delivery/payment in respect of a transaction executed by a Trading Member is to be given or taken by a registered custodian, then the later has to confirm the trade done by a Trading Member on the BOLT System. For this purpose, the custodians have been given connectivity to BOLT System and have also been admitted as clearing members. In case a transaction done by a Trading Member is not confirmed by a registered custodian within the time permitted (currently upto 1:00 p.m. on T+1 Day), the liability for pay-in of funds or securities in respect of the same devolve on the concerned Trading Member.

Generation of Obligations: The Exchange generates Delivery and Receive Orders for transactions done by the Trading Members in A, B, S, F & G group scrips after netting purchase and sale transactions in each scrip whereas Delivery and Receive Orders for "T", "TS" & "Z" group scrips, the odd lot transactions and 6 lakh series transactions, which

are traded on the Exchange on "trade to trade" basis are generated on gross basis (i.e., without netting of purchase and sell transactions in a scrip). However, the funds obligations for the Trading Members/Custodians are netted for transactions across all groups of securities. The under mentioned Settlement Obligation reports are downloaded to the Trading Members/Custodians:

- i) **Delivery Order/Receive Order:** This statement provides information like the scrip and quantity of securities to be delivered / received by the members through the Clearing House.
- ii) **Money Statement:** The Statement provides scrip wise details of payments/receipts of funds by the members in the settlement.

The Delivery/Receive Orders and Money Statement, as stated earlier, can be downloaded by the Trading Members/Custodians in their back office.

9.3. Trading and Settlement Cycle:

The following table summarizes the steps in the trading and settlement cycle for scrips under CRS:

| DAY | ACTIVITY |
|-----|---|
| T | Trading on BOLT and daily downloading of statements showing details of transactions and margins at the end of each trading day. |
| | Downloading of provisional securities and funds obligation statements by Trading Members |
| | Give-up* entry by the Trading Members/ confirmation by the custodians |
| T+1 | Trading Members can modify the unconfirmed give up entry upto 11:00 a.m. |
| | Confirmation of give up data by the Custodians upto 1:00 p.m. |
| | Downloading of final securities and funds obligation statements by Trading Members/ |

| | |
|-----|---|
| | custodians |
| T+2 | Pay-in/Payout: Pay-in of funds and demat securities by 11:00 a.m. The Trading Members to ensure availability of funds in their designated Clearing Bank account and securities in their demat Pool/Principal Accounts by 10:30 a.m. In case of delivery of securities in physical form, the Trading Members have to deliver the securities to the Clearing House in special closed pouches along with the relevant details like distinctive numbers, scrip code, quantity, etc., on a floppy between 9.30 a.m. to 10:30 a.m. |
| | Pay-out of funds and securities by 1:30 p.m. |
| | Auction on BOLT between 2.00 p.m. to 2.45 p.m. |
| | Auction Report Downloads to Trading Members between 3.00 p.m. to 3.15 p.m. |
| T+3 | Auction pay-in and pay-out of funds and securities after 11.00 a.m. |

Note: The timings stated in the aforesaid table are the normal timings unless changed by the Exchange.

* **Trades Give-up (Transfer of trading members' obligations to Custodians):** A mechanism whereby the obligation of settling the transactions done by a Trading Member on behalf of a client is passed on to a custodian based on confirmation of latter. The Trading Member can enter the give-up (also called 6A-7A) entry during the Continuous Trading Session (i.e. 9.15 a.m. to 3:30 p.m.) or Post Closing session (3.40 p.m. to 4:00 p.m.) or Member Query Session (4:00 p.m. to 6:00 p.m.) on T Day and he can modify the unconfirmed 6A-7A entry upto 11:00 a.m. on T+1 Day. The Custodian can confirm the 6A-7A entries on-line on T Day (in the same sessions as Trading Member can enter 6A-7A entries) upto 1 p.m. on the T+1 Day.

Note: As per SEBI circular dated the September 2, 2005, all the institutional transactions are required to be settled through the Clearing House/Corporations of the Exchange. The Exchange has issued notice Nos.20050914-19 dated the September 14, 2005 and

the main points are highlighted below:

- 1) If the institutional trades are not confirmed by the custodians (after the trade has been executed, in the time allotted for the same i.e. till 1:00p.m. on T+1 day), then such trades would devolve on the Trading Member/s and in turn they will have to settle the said obligations with the Client/Client's Custodian as a Hand Delivery Bargain on a DVP (Delivery V/s Payment) basis.
- 2) Unconfirmed institutional trades by the custodians would attract penalty @ 0.1% of the total value of unconfirmed trades for the settlement or Rs. 10,000/- whichever is less. This penalty would be levied on the trading members.
- 3) The Exchange vide its Notice No.20050919-25 dated the September 19, 2005, has intimated the Trading Members to inform the Exchange about non-institutional trades (giving details like Settlement No., Client Name and ID, Scrip Code, Scrip Name, Purchase Quantity and/or Sale Quantity) which were erroneously marked as institutional at the time of the Order entry or later on they are taken by the Trading Members in their error account etc. so that the Exchange will collect margins on these transactions. The Margins will be collected from the Trading Members in the evening of T+1 Day along with the other margins payable by the Trading Members.

The penalty amount would be included in the settlement obligation statement of the trading members for the concerned settlement.

9.4. Pay-in/Pay-out (Securities and Fund) Process:

9.4.1. Funds Pay-in

The Exchange as on date has appointed following 17 banks as designated Clearing Banks for the purpose of settlement of Funds (Pay-in/Pay-out). Member broker/Custodian has to open settlement account with any one of such clearing banks for settlement of their funds obligations. The bank account of the Trading Member/s and the Custodians held with the respective Designated Clearing Banks is directly debited for their settlement obligations.

| No. | Name of the Designated Clearing Bank | No. | Name of the Designated Clearing Bank |
|-----|--------------------------------------|-----|--------------------------------------|
| 1 | Axis Bank | 10 | INDUSINDBANK |
| 2 | Bank of Baroda | 11 | IDBI Bank |
| 3 | Bank of India | 12 | Kotak Mahindra Bank Ltd. |
| 4 | Canara Bank | 13 | Oriental Bank of Commerce |
| 5 | Citibank N.A. | 14 | Punjab National Bank |
| 6 | Corporation Bank | 15 | Standard Chartered Bank |
| 7 | HDFC Bank Ltd. | 16 | State Bank of India |
| 8 | HSBC Bank | 17 | Union Bank of India |
| 9 | ICICI Bank Ltd. | | |

9.4.2. Securities Pay-in

Demat Securities:

The Trading Members/Custodians can effect pay-in of demat securities to the Clearing House through either of the depositories i.e. Central Depository Services (India) Ltd. (CDSL) and National Securities Depository Ltd. (NSDL). The members are required to give instructions to their respective Depository Participants (DPs) specifying details such as settlement no., effective pay-in date, quantity, etc.

Auto Delivery-Out/Pay-in facility:

Instead of issuing Delivery instructions for their securities delivery obligations in demat mode in various scrips in a settlement /auction, a facility has been made available to the Trading Members of automatically generating Delivery instructions on their behalf from their CM Pool accounts maintained with NSDL and CM Principal Accounts maintained with CDSL. This auto delivery facility is available for Rolling & Auction settlements. The trading members wishing to avail of this facility have to submit an authority letter to the Clearing House. This auto delivery facility is currently available for Clearing Member (CM) Pool accounts and Principal accounts maintained by the members with the NSDL and CDSL depositories, respectively.

9.4.3. **Physical Securities:** In case of delivery of securities in physical form, the Trading Members have to deliver the securities to the Clearing House in special closed pouches along with the relevant details like distinctive numbers, scrip code, quantity, etc., in digital format between 9.30 a.m. to

10:30 a.m. (i.e. normal timings-if not changed by the Exchange) on T+2 day. The data submitted by the Trading Members in digital format is matched against the master file data with the Clearing House computer systems. If there is no discrepancy, then the securities are accepted.

9.4.4. **Shortages (Securities)**

The Clearing House generates the securities shortages report for various scrips which are not delivered by the Trading Members/Custodians on the basis of their delivery obligations and actual delivery after the receipt of the securities pay-in file from both the Depositories. The Clearing House recovers the value of securities short delivered from the Trading Member/Custodian at the standard rate (i.e. closing rate) of the scrips prevailing on the T Day (i.e trading day).

Note: If the Trading Member/Custodian is having a Payout (Funds) obligation then the value of the shortages is reduced from the Pay-out amount. However, in case the Trading Member/Custodian had a Pay-in (Funds) obligation then the value of shortages is sent for recovery to their designated Clearing Bank.

9.5. **Funds Payout:**

The bank accounts of the Trading Members/Custodians having pay-out of funds are credited by the Clearing House with the Clearing Banks on the pay-in day itself.

9.6. **Securities Pay-out:**

9.6.1. Demat Securities: In case of demat securities; the same are credited by the Clearing House in the Pool Accounts of the Trading members/Custodians. The Exchange has also provided a facility to the Trading Members/Custodians for transfer of pay-out of securities directly to the clients' beneficiary owner accounts (Direct Payout to Clients - "DPC"). For this, the concerned Trading members are required to give a client wise break up file which is uploaded by the Trading members from their offices to the Clearing House. Based on the break up given by the Trading members, the Clearing House instructs depositories, viz., CDSL& NSDL to credit the securities to the Beneficiary Owners (BO) Accounts of the clients. In case delivery of securities received from one depository is to be credited to an account in the other depository, the Clearing House does an inter depository transfer to give effect to such transfers.

9.6.2. Physical Securities: The Receiving Members are required to collect the same from the Clearing House on the pay-out day between 1:30 p.m. to 2:30 p.m. (normal timings - unless changed by the Exchange).

Charges on non-collection of Physical Pay-out of Securities if there is delay of more than 2 working Days (w.e.f. September 9, 2002 - refer Exchange Notice No.20020906-02 dated the September 6, 2002): Rs.100/- per pay-out lot.

Note: With the introduction of T+2 settlement cycle (w.e.f. April 1, 2003), SEBI vide its Circular No. SMD/ POLICY/Cir-6/03 dated the February 12, 2003, has mandated that the trading members should effect pay-out of funds and securities to their clients within 24 hours of the pay-out by the Exchange.

9.7. AUCTION

Auction Tender Notice: Auction Tender Notice is issued by the Exchange on T+2 Day evening, informing the market that online auction offer entry session will be conducted on BOLT system between 11:00 a.m. to 12 noon (normal timings - unless changed by the Exchange) on T+3 Day for all the scrips short delivered by the delivering trading members at the time of Securities Pay-in, except for scrips/transactions which are traded on trade to trade basis (i.e. scrips traded under "Z", "T" and "TS" groups, Odd lot transactions, 6 lakh series transactions and Block Deal transactions). Scrips which are traded on trade to trade basis are directly closed out by the Exchange.

Note: The defaulting delivering member can not participate in Auction Offer Entry Session for those securities which it had failed to deliver at the time of Pay-in.

The Auction Matching in the BOLT system takes place between 12:00 noon and 12:15 p.m. and the Trading Members can download the Auction Reports between 12:15 p.m. to 1:15 p.m.

The Auction Pay-in and Pay-out takes place on T+4 Day. The Auction Pay-in time (funds and securities) is 12 noon while the Auction Pay-out time (funds and securities) is 1:30 p.m. (normal timings - unless changed by the Exchange).

9.7.1. Self-Auction: As has been discussed in the earlier paragraphs, the Delivery and Receive Orders are issued by the Exchange to the Trading members after netting off their purchase and sell transactions in scrips where netting of purchase and sell positions is permitted. It is likely in some cases, a selling client has failed to deliver the shares sold in a settlement to a

Trading Member. However, this did not result in failure of the Trading member to deliver the shares to the Clearing House as there was a purchase transaction of his some other buying client in the same scrip and the same was netted off for the purpose of settlement. However, in such a case, the Trading Member would require shares so that he can deliver the same to his buying client, which otherwise would have taken place from the delivery of shares by his selling client. To provide shares to the Trading Members, in such cases, so that they are in a position to deliver them to their buying clients, they have been given an option to submit the details of such internal shortages on floppies or upload system on pay-in day for conducting self-auction (i.e., as if they have defaulted in delivery of shares to the Clearing House). In case the Trading Member informs the Clearing House about inclusion of self-auction request before 11:00 a.m. then these shortages are clubbed along with the normal shortages in a settlement arrived at by the Clearing House and the auction is conducted by the Clearing House for the combined shortages. However, if the self auction request is received between 11:00 a.m. to 3:00 p.m. then the said Trading Member will also have to give Pay-order/instruct its clearing bank to make payment of the Total Value of self auction securities (i.e. at the standard rate (i.e. closing rate) of the scrips prevailing on the T Day (i.e trading day)) to the Exchange's settlement account.

9.8.CLOSE-OUT

Close -out is effected for the under mentioned cases:

- (i) cases where no offer for a particular scrip is received in the auction offer entry session or when the Offer or Trading Members whose offer/s had been accepted in the auction Offer Entry session, fails to deliver either full/part delivery of the securities on the Auction Pay-in Day or
- (ii) Shortages pertaining to scrips/transactions which are settled on a trade to trade basis on the Exchange.

The close-out rates for different segments are as under:

- (i) **For 'A', 'B', 'S' and 'F' group scrips**

The close-out rate is **higher** of the following rates:

- a) The highest rate of the scrip from the trading day to the day prior to the

day on which the auction is conducted for the respective settlement.

- b) 20% above the closing rate as on the day prior to the day of auction/close out of the respective settlement.

(ii) For "Odd Lot" , "T", "TS" and "Z" group and Patawat objections

The Close-out will be carried out using the aforesaid formula by replacing "20%" with "10%".

- (iii) In case of shortages in "G" group, the shortages are closed out at Zero Coupon Yield Curve (ZCYC) plus a 5% penalty.

(iv) Close-out in "No Delivery Abolished" cases

As per the SEBI's directive in case of compulsory demat scrips "No-Delivery period" has been abolished. The shortages pertaining to those cum-benefit settlements, where the auction pay-out would take place on or after BC and after RD would be directly closed-out, instead of going in for auction.

The Close-out will be carried out using the formula stated in (i) above by replacing "20%" with "10%".

Fine/Penalty norms for non-fulfillment of Settlement Obligations

The Exchange vide its Notice No.20050520-20 dated the May 20, 2005, has informed the market about the fine/penalty norms for Settlement Pay-in Defaults other than margin pay-in defaults which are stated below:

| Violation/s | Obligation \geq 20% Of BMC & \leq BMC (On 3 months) | Obligation more than BMC (For Financial Yr) |
|---|--|--|
| Delay in clearance of funds obligations (viz. shortages, auction and normal pay-in obligation) and non- | 1st instance: Rs.5, 000/- or 1% of funds obligation, whichever is higher. | 1st instance: 0.5% of funds obligation. In addition BOLT Terminal to be de-activated immediately and to remain de-activated till pay-in obligation is cleared. |
| | 2nd instance: Rs. 10,000/- or 2% of funds obligation, whichever is higher. | 2nd instance: 1% of funds obligation. In addition to the above penalty, BOLT Terminal to be deactivated immediately and to remain de-activated for additional ONE trading day, after clearance of the obligation. |

| | | |
|---|---|--|
| Same as Above | 3rd instance: Rs.15, 000/- or 2.5% of funds obligation, whichever is higher. | 3rd instance: 1.5 % of funds obligation. In addition to the above penalty, BOLT Terminal to be deactivated immediately and to remain de-activated for additional three trading days after clearance of the obligation irrespective of the amount of obligation. |
| Violation/s | Obligation \geq 20% Of BMC & \leq BMC(On 3 months rolling basis) | Obligation more than BMC (For Financial Yr) *Deposit as funds shortage collateral. |
| Delay in clearance of funds obligations (viz. shortages, auction and normal pay-in obligation) and non-deposit of additional capital as per SEBI stipulated capital cushion requirements. | 4th Instance: Rs. 20,000/- or 3 % of the funds obligation whichever is higher will be levied. | 4th instance: 2% of the funds obligation. In addition to the above penalty, BOLT Terminal to be deactivated immediately and to remain de-activated for additional five trading days after clearance of the obligation, irrespective of the amount of obligation. |
| | 5th instance: Rs. 40,000/- or 6% of the funds obligation whichever is higher. | 5th instance & above: 3% of the funds obligation. In addition to the above penalty, BOLT Terminal to be de-activated immediately and to remain de-activated for additional seven trading days after clearance of the obligation, irrespective of the amount of obligation. <i>Plus the matter would be referred to DAC.</i> |
| | 6th instance & above: Rs. 75,000/- or 10% of funds obligation whichever is higher. <i>In addition the matter would be referred to DAC. In case this is the sixth instance within a period of 3 months, on rolling basis, BOLT terminals of the member shall be de-activated immediately. Also deposit as "funds shortage collateral" ** will be collected as per SEBI guidelines.</i> | |

** Deposit as "**funds shortage collateral**" will be collected as follows:

- Deposit will be equivalent to his **cumulative** funds shortage
- Such deposit shall be kept with the Exchange for a period of **ten rolling** settlements and shall be released thereafter.
- Such deposit shall **not be available** against exposure, margin liabilities
Such deposit will not earn any interest.
- Such deposit may be by way of cash, fixed deposit receipts, or bank guarantee.
- Format of the bank guarantee will be similar to the format in which the bank guarantees are being deposited by the members towards collateral.
- In case a member fails to meet his obligation amounting to less than 20% of BMC, a penalty equivalent to his obligation amount or Rs.5, 000/- whichever is less will be levied.
- Further, if a member fails to meet his pay-in obligations of a normal settlement, auction settlement and that of securities delivered short in the pay-in for the same settlement, then such instances of default would be considered as a single instance for the purpose of counting violations and levying penalties as above.
- Non deposit of additional capital under capital cushion requirement would be considered as a separate instance for the purpose of counting instances of violation and levying fines/penalties as above.

9.9. BROKERS CONTINGENCY FUND

The Exchange has set up a Brokers' Contingency Fund (BCF), since July 21, 1997 with a view:

- (i) to make temporary refundable advance (s) to the Trading Members facing temporary financial mis-match as a result of which they may not be in a position to meet their financial obligations to the Exchange in time;
- (ii) to protect the interest of the investors dealing through members of the Exchange by ensuring timely completion of settlement.
- (iii) inculcate confidence in investors regarding safety of their bonafide transactions

BCF is managed by a Committee comprising of the Managing Director, Chief Operating Officer and three non-elected directors.

BSE contributed Rs.9.51 crore to the corpus of this Fund. All active Members are required to make an initial non-refundable contribution of Rs.2, 50,000 to the Fund.

Members may get advances from this Fund upto a maximum of Rs.25 lakh at the rate of 12% per annum.

BCF ensures that the settlement cycles at BSE are not affected due to the temporary financial problems faced by its Members, further strengthening the credibility of the stock exchange settlement system.

The detailed procedure for obtaining advance from the Brokers Contingency Fund is stated in Exchange Notice No.20030201-6 dated the February 1, 2003. However, the brief particulars of the same are stated below:

A Trading Member desirous of availing of an advance would be required to give a request letter in writing to the Clearing & Settlement Department stating that as and when there is a shortfall in meeting his funds pay-in obligation, the Exchange may automatically advance him an amount up to Rs. 10 lakh to meet such shortfall.

A Trading Member would be eligible to avail of advance from the Fund upto a maximum of Rs 25 lakh at any point of time. The advance would be available only for meeting shortfall in his funds pay-in obligations in a settlement arising out of delivery based transactions and not for any other obligations in a settlement.

The advance would be available for a maximum period of 30 days from the date of disbursement. A member would be eligible to avail of advance from the Fund up to a maximum of six times in a financial year. The amounts advanced from the BCF would be at the following interest rates:

For the first three times in a financial year @12% p.a. o

For the next three times in a financial year @15% p.a.

The advance may be availed of by a member against the value of his pay-out securities (in dematerialized form only) after applying a haircut of 30%.

9.10. **Spot Delivery Bargains (Cash Market)**

In terms of the provisions of the Bye Law 48 of the Rules, Bye-laws & Regulations of the Exchange the Trading Members of the Exchange are allowed to enter into Spot Delivery Bargains (i.e. Spot Deals) in the scrips which are listed and not suspended on the Exchange. Trading Members are required to settle the Spot Delivery Bargains outside the Exchange on off-market basis within the prescribed time limit (refer Section 2 (i) of the Securities Contracts (Regulation) Act, 1956). *The settlement of these bargains is not guaranteed by the Exchange.*

Reporting of Spot Delivery Bargains to the Exchange: The Exchange vide its Notice No. 20040306-9 dated the March 6, 2004, has intimated the Trading Members about the modalities of reporting spot deal transactions to the Exchange through DUS Software (i.e. Data Upload Software - available for downloading through DLOAD32).

Fines and Penalties for non-reporting or for any violation in execution and settlement of SPOT Deal transactions: The Exchange vide its Notice No.20060602-7 dated the June 2, 2006, has intimated the Trading Members about the revised norms for imposing late fees, fines and penalties pertaining to the violation in execution and settlement of Spot Delivery Bargains (for the Cash segment).

9.11. RECTIFICATION OF BAD DELIVERY

One of the problems faced by the investors in the secondary market, when the securities purchased by them are delivered to them in physical form, is that of bad delivery. The bad delivery can be identified by the Receiving Trading Member at the time of receipt (as per the norms of good and bad Delivery of documents prescribed by SEBI) of Pay-out of physical securities which is known as "Patawat Objection" or it can be received by the Transferee(s) (i.e. buying client) when the company gives reasons/objection not to the transfer the shares in the names of the Transferee(s) which is known as "Company Objection".

In order to tackle this problem, the Exchange, as per the directive received from SEBI had set up a separate Bad Delivery Cell (BDC) in December, 1996. However, after introduction of compulsory demat settlement of most of the scrips by SEBI, the number of cases relating to bad delivery has declined considerably.

As per SEBI directives, besides trading members, the Custodians have also been allowed to participate in the process of settlement of bad deliveries at the Exchange w.e.f. April 1997. This is highly beneficial to the clients of custodians who get direct access to speedy and expeditious resolving of bad deliveries.

9.11.1. The procedure for handling Patawat Objection and Company

Objection is stated below:

Patawat Objections

The physical securities received in pay-out are required to be checked by the Receiving members for good delivery as per the norms of good and bad delivery of documents prescribed by SEBI. If the securities are not considered good delivery then the receiving member has to participate in "Patawat Objection Cycle" given below:

| DAY | ACTIVITY | TIME |
|------------|--|--------------------------|
| T+3 | Patawat Arbitration session: Arbitration awards to be obtained from officials of the Bad Delivery Cell. | 10:30 a.m. to 11:30 a.m. |
| | Securities under objection to be submitted in the Clearing House. | 11:00 a.m. to 12:00 noon |
| | The delivering members to collect such securities under objection from the clearing house. | 2:00 p.m. to 3:00 p.m. |
| | Arbitration awards for invalid objection to be obtained from members of the Arbitration Review Committee/officials of the Bad Delivery Cell. | 5:00 p.m. to 5:30 p.m. |
| T+4 | Members and institution to submit rectified securities, confirmation forms and invalid objections in the clearing house. | 1:00 p.m. to 2:00 p.m. |
| | Rectified securities/invalid objections will be delivered to the receiving members | 3:00 p.m. to 4:00 p.m. |
| T+5 | Arbitration Awards for invalid rectification to be obtained from officials of the Bad Delivery Cell | 11:30 a.m. to 12:30 p.m. |
| | Securities to be lodged with the clearing house upto | 1:00 p.m |

The transactions pertaining to un-rectified and invalid rectification of securities are directly closed-out by the Exchange as per the formula (refer para captioned "Close-out").

The shares in physical form returned under objection to the Clearing House as explained earlier are required to be accompanied by an arbitration award (Chukada) except in certain cases where the receiving member-brokers are permitted to submit securities to the Clearing House without "Chukada" or arbitration award in the following cases:

- a. Transfer Deed is out of date.

- b. Cheques for the dividend adjustment for new shares where distinctive numbers are given in the Exchange Notice are not enclosed.
- c. Stamp of the Registrar of Companies on the Transfer Deed is missing.
- d. Details like distinctive numbers, transferors' names, etc. are not filled, in the Transfer Deeds.
- e. Delivering member-brokers stamp on the reverse of the Transfer Deed is missing.
- f. Witness stamp or signature on Transfer Deed is missing.
- g. Signature of the transferor is missing.
- h. Death Certificate (in cases where one or more of the transferors is/ are deceased) is missing.

A penalty at the rate of Rs.100/- per Delivery Order is recovered by the Exchange from the delivering members for delivering shares, which are not in order.

COMPANY OBJECTION

The physical securities received back by the Transferee(s) without being transferred in their name along with the Objection Memo issued by the Company are known as "Company Objection".

The procedure to be followed for rectifying the bad deliveries received under the Company Objection is stated below:

As per the Guidelines issued by SEBI and procedure prescribed in this regard, the receiving members of the securities are required to lodge claims for bad deliveries on the introducing members, who delivered the securities first time in the market. The introducing members are required to rectify /replace bad deliveries within a period of 21 days from the date of receipt of the documents under objection.

The Exchange issues the Notice detailing the 21 day Bad Delivery Cycle on every Tuesday.

If a claim has been wrongly reported against an introducing member, he is required to return back the documents to the receiving member within the stipulated period after obtaining an award for invalid objection from the Exchange. If a member fails to obtain the award and return back the documents to the buyer within stipulated period, it is presumed that he has accepted the claim.

Similarly, on receipt of the rectified /replaced securities from the introducing member, if the receiving member finds that securities are not proper, he has to

obtain an award for invalid rectification from the Exchange officials within the stipulated period and return back the documents to the introducing member.

All the unrectified Bad Delivery Claims (BDC) as well as invalid rectifications of bad deliveries go for auction or close out as the case may be as per the Rules of the Exchange and the receiving members receive either the securities in auction or an amount representing close out of transactions relating to bad delivery.

The receipt and delivery of the securities by the members and custodians relating to bad deliveries is handled through the Clearing House.

The shares which have been returned to the transferee under objection by a company for the second time, can be reported as bad delivery as Second Time Objection. The seller in this case is not given a chance to rectify the objections and the claim is directly closed out on the 10th day of reporting of the objection to the Exchange.

In case of objection reported to the Exchange as Fake/Forged and Missing/Lost/Stolen shares, the rectification is allowed only in demat mode.

9.12. **RISK MANAGEMENT AND MARGIN SYSTEM**

The Exchange has put in place a Comprehensive Risk Management Framework as prescribed by SEBI from time to time. The Exchange has introduced a system of guaranteeing settlement of bonafide trades to ensure that market equilibrium is not disturbed in case of payment default by the members.

The Exchange has accordingly formulated a scheme to guarantee settlement of bonafide transactions of members which form part of the settlement system.

The Exchange has constituted a Trade Guarantee Fund with the following objectives:

- a. To guarantee settlement of bonafide transactions of members of the Exchange inter-se which form part of the Stock Exchange settlement system, so as to ensure timely completion of settlements of contracts and thereby protect the interest of investors and the members of the Exchange.
- b. To inculcate confidence in the minds of secondary market participants generally and global investors particularly, to attract larger number of domestic and international players in the capital market.

- c. To protect the interest of investors and to promote the development of and regulation of the secondary market.

9.12.1. **Comprehensive Risk Management Framework for the Cash Market**

SEBI vide its circular No. MRD/DoP/SE/Cir-7/2005 dated the February 23, 2005 and various other circulars have stipulated Comprehensive Risk Management Framework for the Cash Market. The core of the risk management system is the liquid assets (i.e. cash & cash equivalent and non-cash equivalent - i.e. eligible securities) deposited by the Trading Members with the Exchange. These liquid assets shall cover the following four requirements:

- a) MTM (Mark to Market) Losses: Mark to market losses on outstanding settlement obligations of the Trading Member.
- b) Value at Risk (VaR) Margins: Value at risk margins to cover potential losses for 99% of the days.
- c) Extreme Loss Margins (ELM): Margins to cover the expected loss in situations that lie outside the coverage of the VaR Margins.
- d) Base Minimum Capital (BMC): Capital required for all risks other than market risk (for example, operational risk and client claims).

The Exchange vide its Notice No.20050513-26 dated the May 13, 2005, and various other circulars has, *inter alia*, intimated the Trading Members/Custodians about the following criteria in respect of composition of capital, computation & collection of margins, *inter alia* (based on the SEBI circulars):

9.12.2. **BASE MINIMUM CAPITAL (BMC)**

BMC of Rs. 10 lakh is to be kept by all the Trading Members and is not available for adjustment towards margin obligations.

BMC, as prescribed by SEBI, can be kept with the Exchange entirely or at least 50% in the form of Cash & Cash Equivalents (Fixed Deposit and Bank Guarantees). However, the Trading Members can also deposit Non-cash equivalent viz. eligible securities (those securities, which are classified as group I in terms of parameters of volatility and liquidity as stipulated in SEBI circular No. MRD/DoP/SE/Cir-07/ 2005 dated February 23, 2005; and which are belonging to A and B group at the Exchange). Such eligible securities towards BMC can't be more than 50% of the Total Liquid Assets (i.e. Cash &

Cash equivalent + Non-Cash equivalent (i.e. eligible securities)) of the Trading Member. BMC is not available for adjustment towards margins.

Note: The valuation of shares deposited by the Trading Members as collaterals with the Exchange is done on a daily basis, and a hair-cut equivalent to the respective VaR rate of individual scrip is applied i.e., only the residual value of eligible shares deposited is considered for the purpose of capital deposited by the Trading Members with the Exchange.

9.12.3. Settlement Guarantee Fund

Trading Members are also required to deposit with the Exchange a sum of Rs.10 lakh towards his contribution to the Settlement Guarantee Fund (SGF). The Trading Members are allowed to deposit cash/FDRs/Bank Guarantee (i.e. Cash & Cash Equivalent) towards their contribution to SGF. SGF is available for adjustment towards margins (i.e. for taking trading exposure).

To ensure that the market equilibrium is not disturbed in case of payment default by the members. BSE has instituted a system to guarantee settlement of bonafide transactions of Members which form part of the settlement system.

BSE has a Settlement Guarantee Fund, in operation since May 12, 1997, with the following objectives:

- a. To guarantee settlement of bonafide transactions of BSE Members inter-se which form part of the Stock Exchange settlement system, so as to ensure timely completion of settlements of contracts and thereby protect the interest of investors and Members.
- b. To inculcate confidence in the secondary market traders including the global investors to attract larger participation.
- c. To protect the interests of the investors and to promote the development and regulation of the secondary market.

SGF is managed by the Defaulters' Committee, which is a Standing Committee constituted by BSE, the constitution of which is approved by SEBI.

BSE has contributed an initial sum of Rs.60 crore to the corpus of the Fund. All active members are required to make an initial contribution of Rs.10, 000 in cash to the Fund and also contribute Re. 0.01 for every Rs.1 lakh of gross turnover in all the groups of scrips by way of continuous contribution which is debited to their settlement account in each settlement.

Settlement Guarantee Fund - G -Sec Segment

In 2003, BSE had set up a distinct Settlement Guarantee Fund known as G-Sec Settlement Guarantee Fund for trading in the Central Government Securities and such fund was created with an initial contribution of Rs. 5 crore by BSE

9.12.4. ADDITIONAL CAPITAL (AC).

For availing higher trading limits, Trading Members can deposit additional capital in form of cash & non-cash equivalents as per following composition:

Liquid Assets: Cash Equivalent

| Particular | Hair-Cut | Limit on Capital Deposit |
|--|----------|--|
| (i) Cash | Nil | No Limit |
| (ii) Bank Fixed Deposit Receipts (FDRs) | Nil | No Limit |
| (iii) Bank Guarantee | Nil | Limit on the Exchange's exposure to a single bank exposure as stipulated in the said SEBI circular (See Note 5 below). |
| iv) Securities of the Central Government | 10% | No Limit |
| (v) Units of liquid Mutual Fund (or) Govt. Securities Mutual Fund (by whatever name called which invests in government securities) | 10% | No Limit |

Other Liquid Assets: Non-Cash Equivalent (will not be used for Mark to Market losses). Total of Other Liquid Assets should not exceed total of Cash Equivalent.

| Particular | Hair-Cut | Limit on Capital Deposit |
|---|--|---|
| Non-Cash Equivalent: Liquid (Group-I) Equity Shares (as per criteria for classification of scrips on the basis of liquidity). (Only A and B1 group securities | Same as the Value at Risk (VaR) margin for the respective scrips | Limit on the Exchange's exposure to a single issuer as stipulated in the said SEBI circular (See Note 6 below). |

| | | |
|---|---|--|
| ii) Mutual Fund units (other than those listed under cash equivalent) * | Same as the VaR margins for the units computed using the traded price on the Exchange, if available, or else, using the NAV of the unit treating it as a liquid security. | |
|---|---|--|

NOTE :

- (i) The valuation of eligible shares deposited by the Members with BSE is done on a daily basis and a hair-cut equivalent to the respective VaR of individual scrip is applied i.e., only the residual value of eligible shares deposited is considered for the purpose of evaluation of capital(collateral) deposited by the Members with BSE. The eligible shares deposited by the Members towards BMC are accepted by BSE in demat form only.
- (ii) The total cash equivalents shall be at least 50% of the Total Liquid Assets (i.e. Cash & Cash Equivalent + Non-Cash Equivalent). This would imply that other Liquid Assets (i.e. Non-Cash component) in excess of the Total Cash Equivalents would not be considered as part of the Total Liquid Assets.
- (iii) Mark to Market losses shall be paid by the Trading Member in the form of cash or cash equivalent.
- (iv) The Exchange as per SEBI directive has laid down single bank exposure limits as under:

Not more than 5% of the TGF/SGF or 1% of the total liquid assets deposited with the exchange, whichever is lower, shall be exposed to any single bank which has a *net worth of less than Rs.500 Crore and is not rated P1 (or P1+) or equivalent*, by a RBI recognized credit rating agency or by a reputed foreign credit rating agency, and not more than 50% of the TGF/SGF or 10% of the total liquid assets deposited with the exchanges, whichever is lower, shall be exposed to all such banks put together.

The total exposure would include guarantees provided by the bank for itself or for others as well as debt or equity securities of the bank which have been deposited by

members towards total liquid assets.

- (v) Based on the SEBI directive, the Exchange has laid down single issuer limits wherein not more than 15% of the Total Liquid Assets forming part of the TGF of the Exchange is exposed to a single issuer directly or indirectly.

Additional Points:

- 1) The Trading Members is able to do transactions only up to the available Total Liquid Assets. The VaR and ELM margins are blocked / released on an upfront basis from available Total Liquid Assets.

The Exchange, as a precautionary measure, provides on-line warning to the Trading Members when they reach 70%, 80% and 90% of their utilization of the Total Liquid Assets. The Trading Member in such cases has the following options:

- a) Instruct its designated Clearing Bank to transfer cash online from its bank account to BSE's account and/or immediately deposit other collateral viz. FDRs, Bank Guarantees, eligible securities with the Exchange.
- b) Trading Members can square off some of his open position and/or
- c) Trading Member can also do early pay-in of funds and/or some securities of current/ unsettled settlement so that margins blocked on such trades can be immediately released and added back to the Total Liquid Assets.

However, when Trading Member's 100% Total Liquid Assets is utilized, a message is flashed on his BOLT TWSs and immediately all his BOLT TWSs get de-activated. The BOLT TWSs of the Trading Members, in such cases, are re-activated only after they deposit additional capital (AC) to avail more trading limit.

- 2) The Bank Guarantee to be submitted by the Trading Member should be in the format as specified by the Exchange. The draft format is available on Exchange's Website in the download section.
- 3) The cash can be deposited by the Members towards capital (liquid assets) by instructing their clearing banks to debit their bank accounts and credit the amount to BSE's account.
- 4) As regards the Fixed Deposit Receipts (FDRs) of banks, the duly discharged

FDRs are required to be submitted by the Members to BSE in the name of "Bombay Stock Exchange Ltd. A/c - trade name of the Member" issued by any Mumbai-based branch or payable at any Mumbai-based branch of any scheduled commercial or selected co-operative bank.

9.12.5. Liquidity Categorization of Securities

The securities shall be classified into three groups based on their liquidity:

| Group | Trading Frequency (over the previous six | Impact Cost (over the previous six |
|-------------------------------|---|---------------------------------------|
| Liquid Securities (Group I) | At least 80% of the days | Less than or equal to 1% |
| Less Liquid Securities (Group | At least 80% of the days | More than 1% |
| Illiquid Securities (Group | Less than 80% of the days | N/A |

Notes: For securities that have been listed for less than six months, the trading frequency and the impact cost is computed using the entire trading history of the scrip.

Monthly Review

The trading frequency and impact cost is calculated on the 15th of each month on a rolling basis considering the previous six months for impact cost and previous six months for trading frequency. On the basis of the trading frequency and impact cost so calculated, the securities shall move from one group to another group from the 1st of the next month.

Categorization of newly listed securities

For the first month and till the time of monthly review as mentioned above, a newly listed stock shall be categorized in that Group where the market capitalization of the newly listed stock exceeds or equals the market capitalization of 80% of the stocks 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 shall be 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 shall be treated as newly listed scrip for group categorization.

Calculation of mean impact cost

The mean impact cost is calculated in the following manner:

Impact cost is calculated by taking four snapshots in a day from the order book in the past six months. These four snapshots are randomly chosen from within four fixed ten-minutes windows spread through the day.

The impact cost is the percentage price movement caused by an order size of Rs.1 Lakh from the average of the best bid and offer price in the order book snapshot. The impact cost is calculated for both, the buy and the sell side in each order book snapshot.

The computation of the impact cost adopted by the Exchange is disseminated on the website of the exchange.

9.12.6. Margins

The Computation, Collection and Release of various types of Margins are stated below:

Value at Risk Margin (VaR): The 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 stocks, the margin covers one-day losses while for illiquid stocks; 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 stocks.

Computation of VaR Margin:

For liquid stocks, the VaR margins are based only on the volatility of the stock while for other stocks, the volatility of the market index is also used in the computation. Computation of the VaR margin requires the following definitions:

Scrip 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.

Scrip VaR means the higher of 7.5% or 3.5 scrip sigmas.

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.

The VaR Margins are specified as follows for different groups of stocks:

| Liquidity Categorization | One-Day VaR | Scaling factor for illiquidity | VaR Margin |
|-----------------------------------|---|--------------------------------|---|
| Liquid Securities (Group I) | Scrip VaR | 1.00 | Scrip VaR |
| Less Liquid Securities (Group II) | Higher of Scrip VaR and three times Index VaR | 1.73 (square root of 3.00) | Higher of 1.73 times Scrip VaR and 5.20 times Index VaR |
| Illiquid Securities (Group III) | Five times Index VaR | 1.73 (square root of 3.00) | 8.66 times Index VaR |

Collection of VaR Margin will be as follows:

- a) The VaR margin is collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade in case of Non-Institutional clients.
- b) In case of Institutional clients VaR margin is collected on T+1 day from the Custodians on the basis of the trades confirmed by them.
- c) The VaR margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including his proprietary position.
- d) Also there is no netting of positions across different settlements.
- e) The VaR margin so collected is released after completion of the pay-in including early pay-in of securities.

Extreme Loss Margin: It covers the expected loss in situations that go beyond those envisaged in the 99% value at risk estimates used in the VaR margin.

Computation and Collection of Extreme Loss Margin:

- a) The Extreme Loss Margin for any stock is higher of:
 - (i) 5%, and
 - (ii) 1.5 times the standard deviation of daily logarithmic returns of the stock price in the last six months. This computation is done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value is applicable for the next month.

(The ELM is also collected/adjusted against the total liquid assets of the member on an on-line realtime upfront basis in case of Non-Institutional clients. In case of Institutional clients ELM is collected on T+1 day from the Custodians on the basis of the trades confirmed by them).

- b) The Extreme Loss Margin is 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 his proprietary position.
- c) Also there is no netting of positions across different settlements.
- d) The Extreme Loss Margin so collected is released after completion of the pay-in.

Further, as per SEBI circular No. MRD/DoP/SE/Cir- 6 /2006 dated the June 16, 2006, w.e.f. July 10, 2006 (i.e. Settlement No.DR-071/2006-2007) the VaR margin rates in the Cash Segment are computed and applied on the basis of intra-day prices (as in the derivative market).

The following procedure is followed for the above mentioned purpose:

- 1) The VaR margin rates are updated at the start of trading on the basis of the closing prices of the previous day and thereafter VaR margin rates are updated on the basis of the prices at 11.00 a.m., 12.30 p.m., 2.00 p.m. and 3.30 p.m. during the day.
- 2) A VaR margin file is also generated at the end of the day.

Mark to Market (MTM) Margin

Computation of Mark to Market Margin: The Mark to Market Margin (MTM) is computed after the trading hours on T Day on the basis of closing price, of that day. In case the security has not been traded on a particular day, the latest available closing price is considered as the closing price. MTM margins is recomputed in respect of all the pending settlements on the basis of closing prices of T day and the difference due to increase/decrease in MTM margins on account of such recomputation will be adjusted in the MTM obligation of the trading member for that day. Such MTM is collected from the Trading Members in the evening on the T Day itself, first by adjusting the same from available cash and cash equivalent component of the liquid assets and the balance MTM in

form of cash from the Trading Members through their clearing banks on the same day.

Collection of Mark to Market Margin: Mark to Market Losses are collected in the following manner:

- a) The Exchange collects the mark to market margin (MTM) from the member/broker before the start of the trading of the next day.
- b) The MTM margin is collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange.
- c) The MTM margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including his proprietary position. For this purpose, the position of a client would be netted across his various securities and the positions of all the clients of a broker would be grossed. Further, there is no netting across two different settlements.
- d) There is no netting off the positions and setoff against MTM profits across 2 rolling settlements i.e. T day and T-1 day. However, for computation of MTM profits/losses for the day, netting or setoff against MTM profits is permitted
- e) The margin so collected is released along with the pay-in, including early pay-in of securities.
- f) The methodology for computation of MTM margin is illustrated by way of an example which is given below:

Example for methodology for computation of MTM Margin

For a Client A, his MTM profit/ loss is calculated separately for his positions on T-1 and T day (two different rolling settlements). For the same day positions of the client, his losses in some scrips can be set off/netted against profits of some other scrips. Thus, we arrive at the MTM loss/profit figures of the two different days T and T-1. These two figures cannot be netted. Any loss will have to be collected and same will not be set-off against profit arising out of positions of the other day.

Thus, as stated above MTM profits/ losses are computed for each of the clients Client A, Client B, Client C etc.

As regards collection of margin from the Trading Member, the MTM is grossed

across all the clients i.e. no setoff of loss of one client with the profit of another client. In other words, only the losses will be added to give the total MTM loss that the broker has to deposit with the exchange.

| Client ID | Scrip | T-1 day | Tday | Total profit/ | MTM for |
|---------------|------------|---------|-------|---------------|---------|
| Client A | Security X | 800 | 300 | | |
| | Security Y | -500 | -1200 | | |
| | Total | 300 | -900 | -900 | |
| Client B | Security Z | 700 | -400 | | |
| | Security W | -1000 | 800 | | |
| | Total | -300 | 400 | -300 | |
| Client C | Security X | 1000 | 500 | | |
| | Security Z | -1500 | -800 | | |
| | Total | -500 | -300 | -800 | |
| Client D | Security Y | 700 | -200 | | |
| | Security R | -300 | 800 | | |
| | Total | 400 | 600 | 1000 | |
| Member | | | | | -2000 |

In this example, MTM margin of Rs.2000 is first be adjusted from the Trading Member's Cash and Cash equivalent components of the Total Liquid Assets and the balance MTM is collected in form of cash from the Trading Members through their Designated Clearing Banks.

Members may also note that, in case the net outstanding position (quantity) in any security is NIL, the difference between the buy and sell values shall be considered as notional profit / loss for the purpose of calculating the mark to market margin payable.

As per the said SEBI circular Exchange/Clearing Corporation have the right to impose additional risk containment measures over and above the risk containment system mandated by SEBI. In view of the same the Exchange issues notice to its Trading Members informing them about the imposition of special margins or other types of margins.

9.12.7. Special Margin (SPM)

Special Margin if imposed on scrip is collected along with MTM from the Trading Members, first, by adjusting the same from the available cash and cash equivalents (liquid assets) and the balance Special Margin (if any) in form of cash from the Trading Members through their Designated Clearing Banks on the same day.

9.13. Release of Margins (Var+ELM+MTM+SPM)

The VaR and ELM margins (blocked online on the T Day during the trading hours), Mark to Market Margin (collected on T Day evening and recomputed on T+1 Day) and Special Margins (collected on T Day evening and recomputed on T+1 Day) are released to the Trading Members on completion of Pay-in (Funds). The same is added online to the Total Liquid Assets of the Trading Member.

Early pay-in facility : The Exchange vide its Notice No.20050513-26 dated the May 13, 2005, has informed the Trading Members about the modalities of doing Early Pay-in (Securities) in order to get the relaxation of the Margins. The same are stated below:

The early pay-in of securities done upto 3.00 p.m. on a day will be considered for on line release of blocked liquid assets on account of margins on that day. The benefits of early pay-in done after 3.00 p.m. on a day will be available on the next trading day.

Members will also be able to do early pay-in of securities before execution of the trade on T day to avail benefit of margin exemption.

For availing the benefits of margin exemptions through early pay-in of securities, the members would be required to upload a file containing details in respect of the early pay-in at client level to the Clearing House (BOISL) in the following new format by using the BOISL version 3 network facility (which is presently available for uploading details pertaining to direct pay-out to clients):

The modalities of uploading the EPN file has been intimated to the Trading Members vide Exchange Notice No. 20050526-20 dated the May 26, 2005.

9.14. **Margins from Clients**

As per SEBI circular No.MRD/DoP/Cir-7/2005 dated the February 23, 2005, the Trading Members should have a prudent system of risk management to protect themselves from client default. Margins are likely to be an important element of such a system. The same are to be documented and made accessible to the clients and the Stock Exchanges. However, the quantum of these margins and form of collection are left to the discretion of the Members.

9.15. **Fines and Penalties**

9.15.1. **Fines/Penalty norms for capital adequacy**: The Exchange vide its Notice No.20050520-20 dated the May 20, 2005, has informed the market about the fine/penalty norms for Settlement Pay-in Defaults which are stated

below:

For margin defaults:

| Violation/s | Revised norms (Instances of violations in a |
|--|---|
| Delay in clearance of margin obligations to the Exchange | <p>1ST to 3RD instance: Rs.5, 000/- or 1% of funds obligation, whichever is higher. In addition BOLT Terminal to be de-activated immediately and to remain de-activated till margin obligation is cleared.</p> |
| | <p>4th & 5th instance: Rs.10, 000/- or 1.5% of funds obligation, whichever is higher. In addition to the above penalty, BOLT Terminal to be de-activated immediately and to remain de-activated for additional ONE trading day, after clearance of the obligation.</p> |
| | <p>6th & 7th instance: If financial obligation is <= Rs.25000/- then penalty of Rs. 10,000/- will be levied. If financial obligation is > Rs.25,000/- penalty of Rs.25,000/- or 2% of funds obligation whichever is higher .In addition to the above penalty, BOLT Terminal to be deactivated immediately and to remain de-activated for additional three trading days after clearance of the obligation irrespective of the amount of obligation.</p> |
| | <p>8th Instance: If financial obligation is <= Rs. 50,000/- then penalty of Rs. 25,000/- will be levied. If obligation is > Rs. 50,000/- then penalty of Rs. 50,000/- or 2.5 % of the funds obligation whichever is higher .In addition to the above penalty, BOLT Terminal to be de-activated immediately and to remain de-activated for additional Seven trading days after clearance of the obligation, irrespective of the amount of obligation. Plus the matter would be referred to DAC.</p> |

9.15.2. Fines / Penalty norms for deactivation of BOLT TWS due to non-availability of total liquid assets:

The Exchange vide its Notice No.20060825-38 dated the August 25, 2006, has informed the market about the revision in the fine/penalty norms for deactivation of BOLT TWS due to non-availability of total liquid assets (w.e.f. September 1, 2005) which are stated below:

| Description | No. of instances in a financial year | Fines/penalties (Rs.) |
|---|---|--|
| Fines/penalties for de-activation of BOLT TWSs due to non-availability of Total Liquid Assets (collateral) during the trading session and in case of deactivation of BOLT TWSs due to non-availability of total liquid asset at the end of day because of shortfall of Total Liquid Assets due to expiry of Bank Guarantees /Fixed Deposit Receipts, evaluation of securities, etc. | 1 st to 5 th instance. 6 th to 15 th instance. 16 th to 30 th instance | Rs. 5,000/- per instance. Rs. 10,000/-per instance or 0.25% of the amount of shortfall of total liquid assets on account of violation of trading limits, whichever is higher. Rs. 15,000/- per instance or 0.25% of the amount of shortfall of total liquid assets on account of violation of trading limits, whichever is higher. |
| | 31 st instance onwards. | Rs. 20,000/- per instance or 0.25% of the amount of shortfall of total liquid assets on account of violation of trading limits, whichever is higher. |

The trading members are given on-line warnings on the BOLT TWSs when they reach 70%, 80% and 90% of the utilization of Total Liquid Assets. To avoid de-activation of BOLT TWSs and levy of fines/ penalties, trading members are advised to deposit additional liquid assets with the Exchange sufficiently in advance. When a Member crosses 100% of the utilization of TLA, a message is flashed on his BOLT TWSs which says "Capital Violated: Member Trading Suspend" and immediately thereafter, all his BOLT TWSs get deactivated. The BOLT TWSs of the Members in such cases are reactivated only after they deposit the required additional liquid assets. To avoid de-activation of BOLT TWSs and levy of fines/penalties, the additional liquid assets should be deposited with BSE sufficiently in advance.

9.15.3. Capital Cushions Requirements (w.e.f. February 1, 2005)

As mandated by SEBI, the Exchange vide its Notice No.20050117-8 have informed the Trading Members about maintaining the Capital Cushions Requirements in the Cash & Derivative Segment, which are stated in brief below:

- At the end of each calendar month, members who have exceeded 90% of utilization of capital/ limits during the day for more than 7 days in the current month are identified.
- In derivatives segment, the utilization is monitored after considering initial margins, exposure margins and premium.
- The capital requirement to bring the utilization to a level of 85% at the time of violating the trigger point of 90% on each of those occasions is noted for the members. The highest of such amounts for the identified members during the month is called for as additional capital.
- The requirement is communicated to members on the first day of the subsequent month.
- The members are provided a time limit of three working days to provide the amount of additional capital in the form of Cash, FDRs and Bank Guarantees only.
- The additional capital so collected is retained with the Clearing House for a period of one calendar month.
- No benefit including exposure, margin etc is available to the member on the amount of additional capital so collected.
- In case of non-payment of additional capital within the stipulated time limit a penalty as applicable for funds shortage is levied for the period of default (refer para G captioned "Fine/Penalty norms for non-fulfillment of Settlement Obligations" in the chapter "Clearing & Settlement").
- In case a member is liable to provide additional capital in the subsequent month, the amount of additional capital is recomputed and the excess /deficit is refunded /called for.

9.15.4. Downloading of Capital Cushion Requirements file: The Exchange vide its notice No.20050225- 27 dated the February 25, 2005, has informed the trading members that the following files viz. CAMmyyyy.nnnn (for Cash Segment) and CDmmyyyy.nnnn (for Derivatives

segment) will be downloaded to the trading members through settlement DLOAD on the first day of every subsequent month containing the details of the additional capital to be deposited by the members towards capital cushion requirements (i.e. for exceeding 90% of utilization of capital / limits for more than 7 days in the previous month).

9.16. **Monitoring Business of Brokers**

The Exchange closely monitors outstanding position of top buying Trading Members and top selling Trading Members on a daily basis. For this purpose, it has developed various market monitoring reports based on certain pre-set parameters. These reports are scrutinized by officials of the Exchange to ascertain whether a Trading Members has built up excessive purchase or sale position compared to his normal level of business. Further, it is examined whether purchases or sales are concentrated in one or more scrips, whether the margin cover is adequate, whether transactions have been entered into on behalf of institutional clients and even the quality of scrips; i.e., liquid or illiquid is looked into in order to assess the quality of exposure. Based on an analysis of these factors, the margins already paid and the total capital deposited by the Trading Members with the Exchange, advance pay-in is called from the Trading Members concerned to improve safety of the market.

The Exchange also scrutinizes the pay-in position of the Trading Members and the Trading Members having larger funds pay-in positions are at times, at the discretion of the Exchange, required to make advance pay-in on T+1 day instead of on T+2 day.

9.16.1. **Trading Restrictions**

The Exchange also places restrictions on the exposure limits of certain Trading Members as a risk containment measure. Some Trading Members are not allowed to take exposure in B2 or Z group scrips, or some times their exposure in this group of scrips is restricted to certain pre-set limits. These restrictions are placed on Trading Members, who frequently delay the payment of margins or pay-in dues, have done excessive trading beyond their means or their financial position shows signs of weakness, the Exchange has received complaints from the clients etc. The trading restrictions are closely monitored and the Trading Members, who are put under trade restrictions, are required to strictly adhere to the restrictions imposed on them.

9.16.2. **Group-wise Exposure Limits:**

As per the Exchange Notice No. 20050930-14 dated the September 30, 2005; the

Exposure limits in case of 'Z' group scrips will continue as specified in Exchange notice no.20040103-1 dated January 03, 2004.

The same is reproduced below for member's reference:

| Scrip | Limit | Penalty/ Permission |
|----------------|--|---|
| Z group | Member is not allowed to trade in 'Z' group beyond following limits | Penalty of Rs.5,000 for every violation |
| | Above Rs. 25 lakh in a single scrip | |
| | Rs. 100 lakh in all 'Z' group scrips in a single Rolling Settlement. | |

Exemptions from application of above mentioned limits:

- Institutional transactions would be exempt from above limits. For this purpose, institutional investors include:
 1. Foreign Institutional Investors registered with SEBI.
 2. Mutual Funds registered with SEBI.
 3. Public Financial Institutions as defined under Section 4A of the Companies Act, 1956.
 4. Banks, i.e., a banking company as defined under Section 5(1) (c) of the Banking Regulations Act, 1949.
 5. Insurance companies registered with IRDA.
- Sale transactions in respect of which 'Early Pay-in' has been done by delivery of shares to the Clearing House would be exempt from above limits.
- It is also clarified that the composite corporate members would have the above limits in multiple of the number of membership rights held by them.
- The purchase in scrip by authorized Trading Members under the Buy-back scheme would be exempt from the above limits. The authorized Trading Member in such cases would also be required to submit copies of the contract note to the Surveillance Department in support of the Buy-back transactions.
- In cases where early pay-in of securities is made, the outstanding position of the client to the extent of early pay-in.

Model Questions

Model questions for Indian Securities, Equity and Debt Market set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|------------------------|--------------------|-----------|-----------------------------------|-----------------------------------|------|
| 1 | Indian Securities market is one among top_____ securities markets of the world. | Four | Eight | Three | Six | Eight | 1 |
| 2 | The Bombay Stock Exchange was established in _____ | 1875 | 1873 | 1874 | 1872 | 1875 | 1 |
| 3 | The Bombay Stock Exchange was established as a _____ | Limited Liability Firm | A partnership firm | A company | Voluntary non-profit organization | Voluntary non-profit organization | 1 |
| 4 | As of December 31, 2009 the Bombay Stock Exchange was among the top_____ of global exchanges in terms of market capitalization of its listed companies | Six | Eight | Ten | nine | Ten | 1 |

Model questions for Regulatory Framework set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|---|----------|----------|----------|----------|--------|------|
| 1 | Majority of the powers granted under SCRA are exercisable by_____ | DEA | SEBI | MCA | RBI | DEA | 1 |

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|------------------------|----------------------|--------------------------------------|---------------|---------------|------|
| 2 | The Companies Act, 1956 does not deal with | Commodity markets | Issues of Securities | Allotment and transfer of securities | Money markets | Money markets | 1 |
| 3 | Insider trading if reported can be investigated by | SEBI | FMC | MCA | RBI | SEBI | 2 |
| 4 | Under Section 31 of The Companies Act, 1956, any company could be of the form except | Limited Liability Firm | Public Companies | Private Companies | Trust | Trust | 1 |

Model questions for BSE Indices set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|---|-----------------------|-----------------|------------------|-----------------|-----------------|------|
| 1 | The Bombay Stock Exchange Ltd. (BSE) in 1986 came out with a stock index | BANKEX | BSE-100 | BSE-200 | SENSEX | SENSEX | 1 |
| 2 | The base year of SENSEX is _____ and the base value is _____ | 1988-89 and 100 | 1978-79 and 100 | 1978-79 and 1000 | 1981-82 and 100 | 1978-79 and 100 | 1 |
| 3 | Index calculation frequency for BSE Sensex is | Thirty Minutes lagged | One hour lagged | Real Time | Two hour lagged | Real Time | 1 |
| 4 | In India, BSE pioneered the concept of free-float by launching _____ in July 2001 | BSE SENSEX | BSE TECK | BSE PSU | BSE FMCG | BSE TECK | 1 |

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|-------------|-------------|--------------|--------------|-------------|------|
| 5 | SENSEX became the _____ in India to be based on the globally accepted Free-float Methodology | Third index | First index | Second index | Fourth index | Third index | 1 |

Model questions for Measurement of Risk and Valuation of shares set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|-------------------|-------------|------------------|-------------------------|------------------|------|
| 1 | The market value of which assets can be found by determining future cash flows and then discounting them back to the present | Intangible assets | Real Assets | Financial Assets | Mutual Funds | Financial Assets | 2 |
| 2 | Time value of money is based on the belief that a rupee that will be received at some future date is worth _____ a rupee today | equal to | double | less | five times | less | 2 |
| 3 | The _____ value interest factor is the future value of Rs 1 per period compounded at i percent for n periods | Future | Present | Nominal | Continuously compounded | Future | 1 |
| 4 | _____ is the chance of loss or the variability of returns associated with a given asset | profitability | Return | Value | Risk | Risk | 1 |

Model questions for Measurement of Financial Statement Analysis set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|-----------------|--------------------------|--------------|---------------|-----------------|------|
| 1 | If the equity multiplier is 2.0, the debt ratio must be _____ | 0.25 | 0.5 | 1 | 0.35 | 0.5 | 1 |
| 2 | Variations in accounting methods among firms _____ financial comparisons between firms | can invalidate | can degrade | can validate | can improve | can invalidate | 1 |
| 3 | Ratios provide a _____ measure of a company's performance and condition | absolute | definitive | gross | relative | relative | 2 |
| 4 | Present and prospective shareholders are mainly concerned with a firm's _____ | risk and return | profitability and return | leverage | profitability | risk and return | 2 |

Model questions for Futures and Contract set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|---|----------|-------------|------------|------------------------|------------|------|
| 1 | A security giving you the right to sell is a _____ | swaption | call option | put option | short futures contract | put option | 1 |
| 2 | A person who combines derivatives with a business risk is a _____ | hedger | speculator | spreader | stock broker | hedger | 1 |

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|----------------|------------------|--------------|--------------|--------------|------|
| 3 | Index Futures trading commenced at BSE in the year | 2000 | 1997 | 2001 | 2004 | 2000 | 1 |
| 4 | An option that has intrinsic value is | over-the-money | out-of-the-money | at-the-money | in-the-money | in-the-money | 2 |

Model questions for BOLT / Trading set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|------------|-------------|-------------|-------------|-------------|------|
| 1 | The genesis year for BSE On-Line Trading System was | 1993 | 1995 | 1996 | 1994 | 1994 | 1 |
| 2 | The 'Z' group was introduced by BSE in | Jan-99 | Jun-00 | Jan-00 | Jul-99 | Jul-99 | 1 |
| 3 | All trading members are required to keep a Base Minimum Capital with the stock exchange is _____ | Rs. 5 Lakh | Rs. 15 Lakh | Rs. 20 Lakh | Rs. 10 Lakh | Rs. 10 Lakh | 1 |
| 4 | Currently the tick size in the scrip listed on the exchange is | 25 paisa | 10 paisa | 15 paisa | 5 paisa | 5 paisa | 1 |

Model questions for Trading Membership set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|---|------------------------------|---------------|----------------------|--------------------|--------------------|------|
| 1 | How membership of BSE can be obtained: (i) By new membership (ii) By nomination | Only (i) | Only (ii) | Both of (i) and (ii) | Either (i) or (ii) | Either (i) or (ii) | 2 |
| 2 | Who cannot be a member? | Everyone can become a member | An individual | A Corporate entity | A Partnership firm | A Partnership firm | 1 |
| 3 | The processing fee for conversion of membership is Rs. _____ | 1.50 Lakhs | 1.00 Lakhs | 2.00 Lakhs | Zero | Zero | 1 |
| 4 | The Brokers' Capital fund fee for conversion of membership is Rs. ____ | 2.0 Lakhs | Nil | 1.00 Lakhs | 2.5 Lakhs | 2.5 Lakhs | 1 |

Model questions for Clearing and Settlement set

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|-------------|--------------|-------------|----------------|----------------|------|
| 1 | The Give-up entry is also known as | 5A-7A entry | 2A-3A entry | 8A-9A entry | 6A-7A entry | 6A-7A entry | 2 |
| 2 | The Auction Pay-in and Pay-out takes place on | T+3 Day | T+1 Day | T+2 Day | T+4 Day | T+4 Day | 2 |
| 3 | BSE contributed what amount towards Broker Contingency Fund? | Rs.9 Crores | Rs 10 Crores | Rs 8 Crores | Rs.9.51 Crores | Rs.9.51 Crores | 1 |

| Q. Id. | Question | Option 1 | Option 2 | Option 3 | Option 4 | Answer | Mark |
|--------|--|----------------|-------------------|------------------|------------------|------------------|------|
| 4 | <p>The Value at Risk (VaR) Margin is a margin intended to cover _____ that can be encountered on 99% of the days (99% Value at Risk)</p> | The model loss | The smallest loss | The average loss | The largest loss | The largest loss | 1 |

BSE'S CERTIFICATION IN FINANCIAL MARKETS (BCFM)

- Certification On Derivatives Exchange (BCDE)
- Certification On Central Depository (BCCD)
- Certification On Corporate Governance (BCCG)

NEWLY ADDED CERTIFICATIONS

- Certification On Fundamental Analysis (BCFA)
- Certification On Security Analysis & Portfolio Management (BCSAPM)
- Certification On Credit Rating (BCCR)
- Certification On International Financial Reporting Standards (BCIFRS)
- Certification On Options Trading (BCOT)

CERTIFICATION EXAMINATIONS CONDUCTED BY BSE AS TEST ADMINISTRATOR OF NATIONAL SECURITIES MARKETS (NISM)

- NISM – Series I Currency Derivatives Certification Examination (NISM – Series I – CD Examination)
- NISM – Series II – A Registrars & Transfer Agents (Corporate) (NISM – Series II – A RTA (Corp.) Examination)
- NISM – Series II – B Registrars & Transfer Agents (Mutual Funds) (NISM – Series II – B RTA (MF) Examination)