NCFM

NSE's CERTIFICATION IN FINANCIAL MARKETS

Surveillance in Stock Exchanges Module Work Book

NATIONAL STOCK EXCHANGE OF INDIA LIMITED

Test Details:

Sr. No.	Name of Module	Fees (Rs.)	Test Duration (in minutes)	No. of Questions	Maximum Marks	Pass Marks (%)	Certificate Validity
1	Financial Markets: A Beginners' Module *	1500	120	60	100	50	5
2	Mutual Funds : A Beginners' Module	1500	120	60	100	50	5
3	Currency Derivatives: A Beginner's Module	1500	120	60	100	50	5
4	Equity Derivatives: A Beginner's Module	1500	120	60	100	50	5
5	Interest Rate Derivatives: A Beginner's Module	1500	120	60	100	50	5
6	Commercial Banking in India: A Beginner's Module	1500	120	60	100	50	5
7	Securities Market (Basic) Module	1500	105	60	100	60	5
8	Capital Market (Dealers) Module *	1500	105	60	100	50	5
9	Derivatives Market (Dealers) Module *	1500	120	60	100	60	3
10	FIMMDA-NSE Debt Market (Basic) Module	1500	120	60	100	60	5
11	Investment Analysis and Portfolio Management Module	1500	120	60	100	60	5
12	Fundamental Analysis Module	1500	120	60	100	60	5
13	Securities Market (Advanced) Module	1500	120	60	100	60	5
14	Mutual Fund (Advanced) Module	1500	120	60	100	60	5
15	Banking Sector Module	1500	120	60	100	60	5
16	Insurance Module	1500	120	60	100	60	5
17	Macroeconomics for Financial Markets Module	1500	120	60	100	60	5
18	NISM-Series-I: Currency Derivatives Certification Examination	1000	120	60	100	60	3
19	NISM-Series-II-A: Registrars to an Issue and Share Transfer Agents – Corporate Certification Examination	1000	120	100	100	50	3
20	NISM-Series-II-B: Registrars to an Issue and Share Transfer Agents – Mutual Fund Certification Examination	1000	120	100	100	50	3
21	NISM-Series-IV: Interest Rate Derivatives Certification Examination	1000	120	100	100	60	3
22	NISM-Series-V-A: Mutual Fund Distributors Certification Examination *	1000	120	100	100	50	3
23	NISM-Series-VI: Depository Operations Certification Examination	1000	120	100	100	60	3
24	NISM Series VII: Securities Operations and Risk Management Certification Examination	1000	120	100	100	50	3
25	Certified Personal Financial Advisor (CPFA) Examination	4000	120	80	100	60	3
26	NSDL–Depository Operations Module	1500	75	60	100	60 #	5
27	Commodities Market Module	1800	120	60	100	50	3
28	Surveillance in Stock Exchanges Module	1500	120	50	100	60	5
29	Corporate Governance Module	1500	90	100	100	60	5
30	Compliance Officers (Brokers) Module	1500	120	60	100	60	5
31	Compliance Officers (Corporates) Module	1500	120	60	100	60	5
	Information Security Auditors Module (Part-1)	2250	120	90	100	60	2
32	Information Security Auditors Module (Part-2)	2250	120	90	100	60	
33	Options Trading Strategies Module	1500	120	60	100	60	5
34	FPSB India Exam 1 to 4**	2000 per exam	120	75	140	60	NA
35	Examination 5/Advanced Financial Planning **	5000	240	30	100	50	NA
36	Equity Research Module ##	1500	120	65	100	55	2
37	Issue Management Module ##	1500	120	80	100	55	2
38	Market Risk Module ##	1500	120	50	100	55	2
39	Financial Modeling Module ###	1000	150	50	75	50	NA

* Candidates have the option to take the tests in English, Gujarati or Hindi languages.

\# Candidates securing 80% or more marks in NSDL-Depository Operations Module ONLY will be certified as 'Trainers'.

** Following are the modules of Financial Planning Standards Board India (Certified Financial Planner Certification)
- FPSB India Exam 1 to 4 i.e. (i) Risk Analysis & Insurance Planning (ii) Retirement Planning & Employee Benefits (iii) Investment Planning and (iv) Tax Planning & Estate Planning
- Examination 5/Advanced Financial Planning

\#\# Modules of Finitiatives Learning India Pvt. Ltd. (FLIP)

\#\#\# Module of IMS Proschool

The curriculum for each of the modules (except Modules of Financial Planning Standards Board India, Finitiatives Learning India Pvt. Ltd. and IMS Proschool) is available on our website: www.nseindia.com > Education > Certifications.

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Surveillance in Stock Exchanges Module Curriculum

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Note:- Candidates are advised to refer to NSE's website: www.nseindia.com while preparing for NCFM test (s) for announcements pertaining to revisions/updations in NCFM modules or launch of new modules, if any.

CHAPTER 1
SURVEILLANCE – AN INTRODUCTION

1.1 Importance of Surveillance

The securities markets are essential for the growth and development of an economy. Securities market offer individuals, large, small and medium-scale enterprises a broader menu of financial services and tailored financial instruments like equities, debentures, government debt, derivatives and other securities. Further, since retail investors are placing an increasing proportion of their money in mutual funds and other collective investments, securities markets have become central to individual wealth and retirement planning. This requires a sound and effective regulation which builds confidence of investors in the market.

Effective surveillance is the *sine qua non* for a well functioning capital market. As an integral part in the regulatory process, effective surveillance can achieve investor protection, market integrity and capital market development. According to **IOSCO (International Organization of Securities Commissions)**, "***the goal of surveillance is to spot adverse situations in the markets and to pursue appropriate preventive actions to avoid disruption to the markets***."

Indian Experience

In India, the stock exchanges hitherto have been entrusted with the primary responsibility of undertaking market surveillance. Given the size, complexities and level of technical sophistication of the markets, the tasks of information gathering, collation and analysis of data/information are divided among the exchanges, depositories and SEBI. Information relating to price and volume movements in the market, broker positions, risk management, settlement process and compliance pertaining to listing agreement are monitored by the exchanges on a real time basis as part of their self regulatory function. In addition to the measures taken by stock exchanges, the regulatory oversight, exercised by SEBI, extends over the stock exchanges through reporting and inspections. In exceptional circumstances, SEBI initiates special investigations on the basis of reports received from the stock exchanges or specific complaints received from stakeholders as regards market manipulation and insider trading.

1.2 Market Surveillance Mechanism

In order to ensure investor protection and to safeguard the integrity of the markets, it is imperative to have in place an effective market surveillance mechanism. The surveillance function is an extremely vital link in the chain of activities performed by the regulatory agency for fulfilling its avowed mission of protection of investor interest and development and regulation of capital markets.

The surveillance system adopted by SEBI is two pronged viz.:

(1) Surveillance Cell in the Stock Exchange and

(2) The Integrated Surveillance Department in SEBI.

(1) Surveillance by Stock Exchange

The stock exchanges are the primary regulators for detection of market manipulation, price rigging and other regulatory breaches in the functioning of the capital market. This is accomplished through Surveillance Cell in the stock exchanges. SEBI keeps a constant vigil on the activities of the stock exchanges to ensure effectiveness of surveillance systems. The stock exchanges are charged with the primary responsibility of taking timely and effective surveillance measures in the interest of investors and market integrity. Proactive steps have to be taken by the exchanges to strengthen investor confidence and integrity and safety of the market. On the basis of real time alerts the stock exchanges can gauge any abnormalities or manipulations in the market. Unusual deviations are informed to SEBI. Based on the feedback from the exchanges, the matter is thereafter taken up for a preliminary enquiry and subsequently, depending on the findings gathered from the exchanges, depositories and concerned entities, the matter is taken up for full-fledged investigation, if necessary.

(2) Integrated Surveillance at SEBI

An effective surveillance mechanism is one of the prime requirements for well functioning securities market. The Integrated Surveillance Department of SEBI * is in charge of overall market surveillance and scope of its activities includes monitoring market movements and detecting potential breach of Regulations, analysing the trading in securities and initiation of appropriate action wherever warranted. The Integrated Surveillance department is responsible for monitoring market activity through market systems, data from other departments and analytical software. The department is responsible for :

- Developing, maintaining and operating an integrated market surveillance system including monitoring of all segments of the markets.
- Methodologies for capturing information from media review, public complaints and tips, other agencies, exchanges, and direct solicitations; assignment of staff to handle functions; method of logging and cataloguing information; criteria for evaluating and distributing information; input into tracking and other systems.
- Recognizing potentially illegal activities and referrals to Investigations, Enforcement or other departments.

* source - www.sebi.gov.in

SEBI also keeps a continuous vigil on the activities of the stock exchanges to promote an effective surveillance mechanism and Integrated Surveillance Department also carries out inspection of surveillance department of major stock exchanges.

To enhance the efficacy of the surveillance function, SEBI has put in place a comprehensive Integrated Market Surveillance System (IMSS) which generates alerts arising out of unusual market movements.

The integrated market surveillance system (IMSS) provides assistance to SEBI in monitoring the market and in discharging its regulatory functions effectively. The system is being used for detecting aberrations, analysing them and identifying the cases for investigation and for taking further action, wherever warranted.

The purpose of this exercise is to promote market integrity and to ensure orderly conduct of the market.

IMSS is also being used for monitoring the activities of market participants as well as issuing suitable instructions to stock exchanges and market participants. Wherever required, findings enabled by IMSS are shared with stock exchanges for appropriate action ensuring that stock exchanges continue to act as the first level regulator for proactively detecting and examining abnormal trading pattern.

During the last couple of years, the Indian securities market has witnessed a phenomenal growth in terms of size and depth which is reflected in stupendous increase in number of daily transactions. It was felt that the existing Integrated Market Surveillance System which helped in enhancing efficacy of the surveillance functioning needed to be complemented with an additional system that would provide a quantum leap to the investigation and research functions of SEBI. The proposed system is required to support multidimensional historical data, have the capability for pattern recognition to quickly identify abnormal situations/transactions, and provide an analytic environment that accelerates investigations and research functions. SEBI, is currently in process of implementing a Data Warehousing and Business Intelligence System (DWBIS). The DWBIS system will be having the following components:

- Data warehousing, data mining and predictive forecasting capabilities,
- Scenario development, research, and what-if analysis platform and
- Sophisticated drill down reporting and charting tool.

The system envisages integration of data available from stock exchanges (cash and derivatives segments) and depositories into a single integrated data warehouse. The DWBIS is expected to generate reports that will better serve SEBI to identify, detect and investigate aberrations and market abuses that undermine market integrity.

At this backdrop of importance and mechanism of surveillance in stock markets, in the subsequent chapters other relevant topics like rules and regulations; surveillance of market activity; role of surveillance in risk management would be discussed in details apart from few concepts pertaining to basic investment mathematics.

Role of IOSCO

IOSCO (International Organization of Securities Commissions)* is the leading international grouping of securities market regulators. The Organization's wide membership regulates more than 90% of the world's securities markets. IOSCO members regulate more than one hundred jurisdictions and the Organization's membership is steadily growing. IOSCO being recognized as the international standard setter for securities markets; it is apt to base the edifice of sound and effective regulation on the principles advocated by IOSCO.

The Preamble to IOSCO's Bye-Laws states that Securities authorities resolve to cooperate together to ensure a better regulation of the markets, on the domestic as well as on the international level, in order to maintain just, efficient and sound markets:

- to exchange information on their respective experiences in order to promote the development of domestic markets;
- to unite their efforts to establish standards and an effective surveillance of international securities transactions;
- to provide mutual assistance to ensure the integrity of the markets by a vigorous application of the standards and by effective enforcement against offences.

IOSCO recognizes that sound domestic markets are necessary to the strength of a developed domestic economy and that domestic securities markets are increasingly being integrated into a global market.

The IOSCO Bye-Laws also express the intent that securities regulators, at both the domestic and international levels, should be guided by a constant concern for investor protection.

Objectives of Securities Regulation

The three objectives are closely related and, in some respects, overlap. Many of the requirements that help to ensure fair, efficient and transparent markets also provide investor protection and help to reduce systemic risk. Similarly, many of the measures that reduce systemic risk provide protection for investors. Further, matters such as thorough surveillance and compliance programs, effective enforcement and close cooperation with other regulators are necessary to give effect to all three objectives.

The three core objectives of securities regulation are:

- The protection of investors;
- Ensuring that markets are fair, efficient and transparent;
- The reduction of systemic risk.

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* source - www.IOSCO.gov.in

The Protection of Investors

Investors should be protected from misleading, manipulative or fraudulent practices, including insider trading, front running or trading ahead of customers and the misuse of client assets.

Full disclosure of information material to investors' decisions is the most important means for ensuring investor protection. Investors are, thereby, better able to assess the potential risks and rewards of their investments and, thus, to protect their own interests. As key components of disclosure requirements, accounting and auditing standards should be in place and they should be of a high and internationally acceptable quality.

Only duly licensed or authorized persons should be permitted to hold themselves out to the public as providing investment services, for example, as market intermediaries or the operators of exchanges. Initial and ongoing capital requirements imposed upon those license holders and authorized persons should be designed to achieve an environment in which a securities firm can meet the current demands of its counter parties and, if necessary, wind down its business without loss to its customers.

Supervision of market intermediaries should achieve investor protection by setting minimum standards for market participants. Investors should be treated in a just and equitable manner by market intermediaries according to standards which should be set out in rules of business conduct. There should be a comprehensive system of inspection, surveillance and compliance programs.

Investors in the securities markets are particularly vulnerable to misconduct by intermediaries and others, but the capacity of individual investors to take action may be limited. Further, the complex character of securities transactions and of fraudulent schemes requires strong enforcement of securities laws. Where a breach of law does occur, investors should be protected through the strong enforcement of the law.

Investors should have access to a neutral mechanism (such as courts or other mechanisms of dispute resolution) or means of redress and compensation for improper behavior.

Effective supervision and enforcement depend upon close cooperation between regulators at the domestic and international levels.

Ensuring that Markets are Fair, Efficient, and Transparent

The regulator's approval of exchange and trading system operators and of trading rules helps to ensure fair markets.

The fairness of the markets is closely linked to investor protection and, in particular, to the prevention of improper trading practices. Market structures should not unduly favor some market users over others.

Regulation should detect, deter and penalize market manipulation and other unfair trading practices. Regulation should aim to ensure that investors are given fair access to market facilities and market or price information. Regulation should also promote market practices that ensure fair treatment of orders and a price formation process that is reliable. In an efficient market, the dissemination of relevant information is timely and widespread and is reflected in the price formation process. Regulation should promote market efficiency.

Transparency may be defined as the degree to which information about trading (both for pre-trade and post-trade information) is made publicly available on a real-time basis. Pre-trade information concerns the posting of firm bids and offers as a means to enable investors to know, with some degree of certainty, whether and at what prices they can deal. Post-trade information is related to the prices and the volume of all individual transactions actually concluded. Regulation should ensure the highest levels of transparency.

The Reduction of Systemic Risk

Although regulators cannot be expected to prevent the financial failure of market intermediaries, regulation should aim to reduce the risk of failure (including through capital and internal control requirements). Where financial failure nonetheless does occur, regulation should seek to reduce the impact of that failure, and, in particular, attempt to isolate the risk to the failing institution.

Market intermediaries should, therefore, be subject to adequate and ongoing capital and other prudential requirements. If necessary, an intermediary should be able to wind down its business without loss to its customers and counterparties or systemic damage. Risk taking is essential to an active market and regulation should not unnecessarily stifle legitimate risk taking. Rather, regulators should promote and allow for the effective management of risk and ensure that capital and other prudential requirements are sufficient to address appropriate risk taking, allow the absorption of some losses and check excessive risk taking. An efficient and accurate clearing and settlement process that is properly supervised and utilizes effective risk management tools is essential.

There must be effective and legally secure arrangements for default handling. This is a matter that extends beyond securities law to the insolvency provisions of a jurisdiction. Instability may result from events in another jurisdiction or occur across several jurisdictions, so regulators' responses to market disruptions should seek to facilitate stability domestically and globally through cooperation and information sharing.

The means to satisfy the above objectives of regulation are articulated in 30 principles. These principles are grouped into eight categories.

A. Principles Relating to the Regulator

1. The responsibilities of the regulator should be clear and objectively stated.
2. The regulator should be operationally independent and accountable in the exercise of its functions and powers

3. The regulator should have adequate powers, proper resources and the capacity to perform its functions and exercise its powers.

4. The regulator should adopt clear and consistent regulatory processes.

5. The staff of the regulator should observe the highest professional standards including appropriate standards of confidentiality.

B. Principles for Self-Regulation

6. The regulatory regime should make appropriate use of Self-Regulatory Organizations (SROs) that exercise some direct oversight responsibility for their respective areas of competence, to the extent appropriate to the size and complexity of the markets.

7. SROs should be subject to the oversight of the regulator and should observe standards of fairness and confidentiality when exercising powers and delegated responsibilities.

C. Principles for the Enforcement of Securities Regulation

8. The regulator should have comprehensive inspection, investigation and surveillance powers.

9. The regulator should have comprehensive enforcement powers.

10. The regulatory system should ensure an effective and credible use of inspection, investigation, surveillance and enforcement powers and implementation of an effective compliance program.

D. Principles for Cooperation in Regulation

11. The regulator should have authority to share both public and non-public information with domestic and foreign counterparts.

12. Regulators should establish information sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts.

13. The regulatory system should allow for assistance to be provided to foreign regulators who need to make inquiries in the discharge of their functions and exercise of their powers.

E. Principles for Issuers

14. There should be full, timely and accurate disclosure of financial results and other information that is material to investors' decisions.

15. Holders of securities in a company should be treated in a fair and equitable manner.

16. Accounting and auditing standards should be of a high and internationally acceptable quality.

F. Principles for Collective Investment Schemes

17. The regulatory system should set standards for the eligibility and the regulation of those who wish to market or operate a collective investment scheme.

18. The regulatory system should provide for rules governing the legal form and structure of collective investment schemes and the segregation and protection of client assets.

19. Regulation should require disclosure, as set forth under the principles for issuers, which is necessary to evaluate the suitability of a collective investment scheme for a particular investor and the value of the investor's interest in the scheme.

20. Regulation should ensure that there is a proper and disclosed basis for asset valuation and the pricing and the redemption of units in a collective investment scheme.

G. Principles for Market Intermediaries

21. Regulation should provide for minimum entry standards for market intermediaries.

22. There should be initial and ongoing capital and other prudential requirements for market intermediaries that reflect the risks that the intermediaries undertake.

23. Market intermediaries should be required to comply with standards for internal organization and operational conduct that aim to protect the interests of clients, ensure proper management of risk, and under which management of the intermediary accepts primary responsibility for these matters.

24. There should be procedures for dealing with the failure of a market intermediary in order to minimize damage and loss to investors and to contain systemic risk.

H. Principles for the Secondary Market

25. The establishment of trading systems including securities exchanges should be subject to regulatory authorization and oversight.

26. There should be ongoing regulatory supervision of exchanges and trading systems which should aim to ensure that the integrity of trading is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants.

27. Regulation should promote transparency of trading.

28. Regulation should be designed to detect and deter manipulation and other unfair trading practices.

29. Regulation should aim to ensure the proper management of large exposures, default risk and market disruption.

30. Systems for clearing and settlement of securities transactions should be subject to regulatory oversight, and designed to ensure that they are fair, effective and efficient and that they reduce systemic risk.

CHAPTER 2
SURVEILLANCE OF MARKET ACTIVITY

2.1 Introduction

In India, Stock Exchanges operate as first level regulators under the oversight of SEBI. As such, the presence of robust surveillance measures cannot be overstated.

To achieve the objectives of securities regulation as laid down by IOSCO, surveillance department of the stock exchange monitors securities trading activity on the Exchange. Broadly, significant changes in two key market parameters – volatility and liquidity - alert the surveillance department to potential market abuse. Effectiveness of surveillance function depends on its ability to promptly and accurately identify suspicious trading.

Some of the methods of possible market abuse are as under:

- Engaging in a series of transactions that give an impression of activity or price movement in a security.
- Improper transactions in which there is no genuine change in actual ownership of the security.
- Transactions where both buy and sell orders are entered at the same time, with the same price and quantity by different but colluding parties with a view to create apparent activity or influence the price.
- Buying at increasingly higher prices and then the securities are sold in the market, often to retail investors, at inflated prices.
- Increasing the bid for a security to increase its price.
- Buying or selling securities at the close of the market in an effort to alter the closing price of the security.
- Dissemination of false or misleading market information through various media.
- Trading on the basis of un-published price sensitive information.
- Front running.
- Securing control of the demand-side of both the derivative and the underlying markets leading to a dominant position which is then exploited to manipulate the price of the derivative and/or the asset.

2.2 Surveillance System

The main objective of surveillance function of a stock exchange is to help maintain a fair and efficient market for securities.

A market can be considered fair if all participants face the same conditions of trading and no entity is in a position to trade on information that is not publicly available. A market can be considered efficient if no single entity or group of entities can influence the price discovery based on available information and / or demand and supply.

Automated Surveillance system is the tool for monitoring real-time trading activities. The Alert system compares the movements of price and trading volume for each security with the parameters based on preset values. If there is an unusual change in terms of price and/or trading volume for any security, the alert system will generate an alert so that online securities monitoring team will be able to promptly investigate for the reason of that unusual change notice any security with unusual changes in its trading pattern. The main objectives of the system can be summarized below:

- To detect potential abnormal activity – Surveillance System detects on real time basis potential abnormal activity by comparing with historical data. Abnormal activity may be pertaining to abnormality in respect of price, volume etc
- Capture real time data on surveillance system – Instantaneous updation of price and quantity data is provided.
- To generate alerts in case of aberrations – Surveillance system generates alerts across live data based on predefined parameters.

Alerts

Online Real Time Alerts

These alerts are based on the trade related information during the trading hours. The objective of these alerts is to identify any abnormality as soon at it happens. These alerts include intra-day price movement related and abnormal trade quantity or value related alerts.

Online Non real Time Alerts

These alerts are based on the traded related information at the end of the day and the available historical information. The objective of these alerts is to analyze the price, volume and value variations over a period.

Price Variation

It is defined as the variation between the last trade price (LTP_t) and the previous close price (P) of a security expressed as a percentage of the previous close price (P). i.e. Price Variation = $\{(LTPt - P)/ P\} \times 100$

High-Low Variation

It is defined as the variation between the high price (H) and the low price (L) of a security expressed as a percentage of the previous close price (P). i.e. High-Low Variation = $\{(H - L)/ P\} \times 100$

Consecutive Trade Price Variation

It is defined as the variation between the last trade price (LTP_t) and the previous trade price (LTP_{t-1}) of a security expressed as a percentage of the previous trade price (LTP_{t-1}) i.e. Consecutive Trade Price Variation (ΔLTP) = $\{(LTP_t - LTP_{t-1})/ LTP_{t-1}\} \times 100$

Quantity Variation

It is defined as the percentage variation between the total traded quantity Q and the average traded quantity Q_{avg} expressed as a percentage of the average traded quantity.

Quantity Variation = $\{(Q - Q_{avg})/ Q_{avg}\} \times 100$

Quantity Variation Ratio = Q/ Q_{avg}

Daily Average Traded Quantity = Total number of shares traded in the last 'n' trading days/n

2.3 Surveillance Actions

Rumour Verification

Leading financial dailies are scrutinized for any price sensitive information pertaining to the companies listed with the Exchange. In case, such news is not intimated to the Exchange and there was impact on the price (of the threshold percentage in price), letters are sent to the companies seeking clarification The reply received from the companies is broadcast to the members, updated on the website and a press release is issued to the effect.

Price bands

Price bands refer to the daily price limits parameterized through appropriate program on the trading system, within which the price of a security is allowed to go up or down. Price bands of 20% are applicable on all securities (including debentures, warrants, preference shares etc), other than specifically identified securities. No price bands are applicable on securities on which derivative products are available or securities included in indices on which derivative products are available. In order to prevent members from entering orders at erroneous prices in such securities, the Exchange has fixed operating range of 20% for such securities.

Scrip wise reduction of Price Bands

At NSE, 5% and 10% daily price bands are applied to specified securities which are identified on objective criteria. The circuit filters are reduced in case of illiquid securities or as a price containment measure.

The price bands for the securities in the Limited Physical Market are the same as those applicable for the securities in the Normal Market. For the Auction Market the price band of 20% are applicable.

Market Wide Circuit Breakers

In addition to the above-stated price bands on individual securities, SEBI has decided to implement index based market wide circuit breakers system, w.e.f., July 02, 2001.

The index-based market-wide circuit breaker system applies at 3 stages of the index movement, either way viz. at 10%, 15% and 20%. These circuit breakers when triggered bring about a coordinated trading halt in all equity and equity derivative markets nationwide to provide for a cooling-off period giving buyers and sellers time to assimilate information. The market-wide circuit breakers are triggered by movement of either the NSE S&P CNX Nifty or BSE Sensex, whichever is breached earlier.

- In case of a 10% movement of either of these indices, there would be a one-hour market halt if the movement takes place before 1:00 p.m. In case the movement takes place at or after 1:00 p.m. but before 2:30 p.m. there would be trading halt for ½ hour. In case movement takes place at or after 2:30 p.m. there will be no trading halt at the 10% level and market shall continue trading.
- In case of a 15% movement of either index, there shall be a two-hour halt if the movement takes place before 1 p.m. If the 15% trigger is reached on or after 1:00p.m. but before 2:00 p.m., there shall be a one-hour halt. If the 15% trigger is reached on or after 2:00 p.m. the trading shall halt for remainder of the day.
- In case of a 20% movement of the index, trading shall be halted for the remainder of the day.

These percentages are translated into absolute points of index variations on a quarterly basis. At the end of each quarter, these absolute points of index variations are revised for the applicability for the next quarter. The absolute points are calculated based on closing level of index on the last day of the trading in a quarter and rounded off to the nearest 10 points in case of S&P CNX Nifty.

Trade for Trade action

Trade for trade deals are settled on a trade for trade basis and settlement obligations arise out of every deal. When a security is shifted to trade for trade segment, selling/ buying of shares in that security would result into giving or taking delivery of shares and no intra day or settlement netting off/ square off facility would be permitted. Trading in this segment is available only for the securities:

- Which have not established connectivity with both the depositories as per SEBI directive. The list of these securities is notified by SEBI from time to time.
- On account of surveillance action.

The surveillance action whereby securities are transferred for trading and settlement on a trade-to-trade basis is based on various factors like market capitalization, price earnings ratio, price variation vis-à-vis the market movement etc. The said action is reviewed at periodic intervals based on market capitalization, price earnings ratio, price variation vis-à-vis the market movement, volatility, volume variation, client concentration and number of non promoter shareholders etc.

Additionally, SEBI has vide circular dated Sep 02 2010 laid down further guidelines for shifting of a security to trade for trade segment, which are as under:

a. the securities of all companies shall be traded in the normal segment of the exchange if and only if, the company has achieved at least 50% of non-promoters holding in dematerialized form by October 31st 2010 (with the exception of the government holding in non promoter category)

b. In all cases, wherein based on the latest available quarterly shareholding pattern, the companies do not satisfy above criteria, the trading in such scrips shall take place in Trade for Trade segment (TFT segment) with effect from the time schedule specified above.

c. In addition to above measures, in the following cases (except for the original scrips, on which derivatives products are available or included in indices on which derivatives products are available) the trading shall take place in TFT segment for first 10 trading days with applicable price band while keeping the price band open on the first day of trading.

Merger, demerger, amalgamation, capital reduction/consolidation, scheme of arrangement, in terms of the Companies Act and/or as sanctioned by the Courts, in cases of rehabilitation packages approved by the Board of Industrial and Financial Reconstruction under Sick Industrial Companies Act and in cases of Corporate Debt Restructuring (CDR) packages by the CDR Cell of the RBI.

Securities that are being admitted to trading from another exchange by way of direct listing/ MOU/securities admitted for trading under permitted category,

Where suspension of trading is being revoked after more than one year.

Securities trading in trade for trade segment are available for trading in BE series at a price band of 5%.

PRECAUTIONS WHILE TRADING FOR CLIENTS

Trading Members are required to ensure proper due diligence while registering new clients. Trading members are also required to be cautious while trading in illiquid securities either on own account or on behalf of their clients. Members should have procedures in place to identify abnormal orders/trades and obtain necessary explanation for them.

Some examples of such cases could be:

- Orders placed away from the market price
- Significant concentration of the client to the market quantity
- Trading concentrated only in one scrip or a group of scrips.
- Repeated pattern of losses.
- Client trading indulging in synchronized transactions
- Regular trading in securities classified as illiquid by the Exchanges.
- Possible order book manipulation

The member should have proper systems in place to identify aberrations in the client level trading activity(eg. Trading pattern in comparison with the clients' reported income, related clients trading amongst themselves, new clients getting registered and trading only in select scrips, illiquid or IPOs, etc).

[Please note that the examples given above are only illustrative]

REQUIREMENTS OF UNIQUE CLIENT CODE

Trading members are required to upload the Unique Client Information to the Exchange for the trades executed on behalf of their clients.

SEBI, vide various circulars from time to time, has made it mandatory for all members to allot and use unique client codes while trading for all their clients. SEBI requires all Trading Members to collect PAN details of each client, verify with Income Tax website and upload the same to the Exchange before commencement of trading on the Exchange. In F&O Segment, the same was mandated w.e.f December 01, 2005 and in Cash Segment w.e.f January 01, 2007.

The Trading Members are required to upload the proper client categories for identification of various categories of clients trading on the Exchange. The following client categories are available:

Category Code	Category Name
1	Individual
2	Partnership Firm / Association of Persons
3	Hindu Undivided Family (HUF)
4	Public & Private Companies / Bodies Corporate
5	Trust / Society
6	Mutual Fund
7	Domestic Financial Institutions (Other than Banks & Insurance)
8	Bank
9	Insurance
10	Statutory Bodies
11	Non Resident Indians (NRIs)
12	Foreign Institutional Investors (FIIs)
13	Overseas Corporate Bodies (OCB)
14	Foreign Venture Capital Funds / Direct Foreign Investments
15	PMS Clients
16	New Pension System

PAN Exempt cases:

PAN is not mandatory to be uploaded for transacting in the securities market for the below mentioned entities.

1. U.N. entities
2. Multilateral agencies
3. Investors residing in the State of Sikkim,
4. Central Government,
5. State Government &
6. The officials appointed by the courts e.g. Official liquidator, Court receiver etc. (under the category of Government).

Details of such clients should be successfully uploaded to the Exchange using "**PAN_EXEMPT**", in the PAN field and provide copies of identification documents in the form of either Passport details or Voter's ID details or Driving License details or Ration Card Details or MAPIN Id or Registration Details.

PREVENTION OF MONEY LAUNDERING ACT, 2002 (PMLA)

With a view to check the money laundering activities, the Government of India, Ministry of Finance, has issued notifications dated July 1, 2005 and December 13, 2005 notifying the Rules under the Prevention of Money Laundering Act (PMLA), 2002. In terms of these Rules, the provisions of PMLA, 2002 came into effect form July 1, 2005. As per the provisions of the Act, every banking company, financial institution (which includes chit fund company, a co-operative bank, a housing finance institution and a non-banking financial company) and intermediary (which includes a stock-broker, sub-broker, share transfer agent, banker to an issue, trustee to a trust deed, registrar to an issue, merchant banker, underwriter, portfolio manager, investment adviser and any other intermediary associated with securities market and registered under section 12 of the Securities and Exchange Board of India Act, 1992) shall have to maintain a record of all the transactions; the nature and value of which has been prescribed in the Rules under the PMLA.

What is Money Laundering?

- Money Laundering is the process of making dirty money clean.
- Disguising the illegal source of funds which could be fraud, theft, corruption, drug trafficking or any other criminal activity.

Prevention of Anti Money Laundering Act 2002 (PMLA):

- PMLA came into effect from July 1, 2005.
- Government of India, MoF, Department of Revenue has issued notifications dated July 1, 2005 and December 13, 2005 in the Gazette of India, notifying the Rules under the Prevention of Money Laundering Act (PMLA), 2002.
- SEBI has issued various guidelines on Anti Money Laundering Standards on January 18, 2006.
- As per the provisions of the Act, every banking company, financial institution (which includes chit fund company, a co-operative bank, a housing finance institution and a non-banking financial company) and intermediary (which includes a stock-broker, sub-broker, share transfer agent, banker to an issue, trustee to a trust deed, registrar to an issue, merchant banker, underwriter, portfolio manager, investment adviser and any other intermediary associated with securities market and registered under section 12 of the Securities and Exchange Board of India Act, 1992) shall have to maintain a record of all the transactions; the nature and value of which has been prescribed in the Rules under the PMLA.

Obligations of the Intermediaries:

- The intermediaries are required to prepare Anti-Money Laundering policies based on the Act. The program should be approved in writing by the senior management of the intermediaries and reviewed at frequent intervals.
- The intermediaries are required to appoint a senior person in their organization as the Principal Officer who would be responsible for all the requirements under the PMLA. The appointment and should be intimated to the FIU

The Anti Money Laundering Policy so formulated should include the following:

- Customer acceptance procedures
- Transaction monitoring

- Reporting
- Training
- Audit

- ***Know your customer:***

The customer acceptance policy should include the following:

- Thorough identification of the customer, source of funds and wealth
- Complete information as per KYC form
- Copy of PAN card after verifying the original
- Internal processes to
  - Address
  - Date of birth
  - Telephone numbers
  - PAN details
- Documentation / back ground check
  - Occupation / business
  - Financial status
  - Source of funds

All the clients should be classified as High, Medium or Low risk clients and a periodic monitoring of the client activity should be undertaken based on the classification

- ***Suspicious customer identification:***

  Any of the following should immediately trigger a red flag in the mind of the verification officer:

  - Unusual or suspicious identification documents
  - Unwilling to provide personal background information
  - Without references & local address
  - Address is outside service area
  - Reluctant to provide service / business details
  - Refuses to identify a legitimate source for funds
  - False or misleading information

- ***Transaction Monitoring & Reporting of Suspicious Transactions:***

  - A record should be maintained of all cash transactions (individually or sum of transactions integrally connected to each other within one month) of value greater than Rs. 10 Lakh or equivalent in foreign currency. Also details of all cash transactions wherein forged or counterfeit notes / bank notes were used should be maintained. All these transactions should be analysed at a regular time interval.

- There should be internal procedures for identifying any type of suspicious transactions.

- **Alert generation:**

An illustrative list of circumstances which may be in the nature of suspicious transactions is given below for alert generation:

- o Substantial increase in activity without any apparent cause
- o Large number of accounts having common parameters such as common partners / directors / promoters / address / email address / telephone numbers / introducers or authorized signatories;
- o Transactions with no apparent economic or business rationale
- o Sudden activity in dormant accounts;
- o Source of funds are doubtful or inconsistency in payment pattern;
- o Unusual and large cash deposits made by an individual or business;
- o Transfer of investment proceeds to apparently unrelated third parties;
- o Multiple transactions of value just below the threshold limit specified in PMLA so as to avoid possible reporting;
- o Unusual transactions by CSCs and businesses undertaken by shell corporations, offshore banks /financial services, businesses reported to be in the nature of export-import of small items.;
- o Asset management services for clients where the source of the funds is not clear or not in keeping with clients apparent standing /business activity;
- o Clients in high-risk jurisdictions or clients introduced by banks or affiliates or other clients based in high risk jurisdictions;
- o Clients transferring large sums of money to or from overseas locations with instructions for payment in cash;
- o Purchases made on own account transferred to a third party through off market transactions through DP Accounts;
- o Suspicious off market transactions;
- o Large deals at prices away from the market.
- o Accounts used as ‘pass through’. Where no transfer of ownership of securities or trading is occurring in the account and the account is being used only for funds transfers/layering purposes.
- o Trading activity in accounts of high risk clients based on their profile, business pattern and industry segment.

- The member should have proper procedures in place for monitoring activities based on predefined parameters.
- **Evaluation:**
  - Each alert should be properly analysed and a thorough investigation at the member's end should be undertaken. The member should also use complete KYC information including details of occupation and financial status at the time of analyzing alerts
  - A proper documentation needs to be maintained for all the alerts generated and investigation undertaken.
  - There should be proper escalation and reporting procedures in the organization incase any suspicious transactions are observed.
- **Reporting to FIU**:
  - Cash Transactions Report (CTR) wherever applicable) for each month should be submitted to the FIU-IND by 15^{th} of the succeeding month.
  - After a thorough investigation of the alerts generated, in case a need is felt, then the details of such transactions should be immediately reported to the FIU.
  - The Suspicious Transactions Report should be submitted within 7 days of arriving at a conclusion that any transaction, whether cash or non-cash, or a series of transactions integrally connected are of suspicious nature. The Principal Officer should record his reasons for treating any transaction or a series of transactions as suspicious. It should be ensured that there is no undue delay in arriving at such a conclusion.
  - Principal Officer is responsible for timely submission of CTR & STR to FIU-Ind.
  - Utmost confidentiality should be maintained in filing of CTR & STR.
  - Intermediaries should not put any restrictions on operations in the accounts where an STR has been made. Further, it should be ensured that there is no tipping off at any level.
- **On going training to Employees:**

  Members should sensitize their employees of the requirements under PMLA and the procedures laid down by the member. Members are also required to ensure that all the operating and management staff fully understands their responsibilities under PMLA for strict adherence to customer due diligence requirements from establishment of new accounts to transaction monitoring and reporting suspicious transactions to the FIU. Members to organise suitable training programmes wherever required for new staff, front-line staff, sub-brokers, supervisory staff, controllers and product planning personnel, etc.

- **Audit/Testing of Anti Money Laundering Program:**

  The Anti Money Laundering program should be subject to periodic audit specifically with regard to testing its adequacy to meet the compliance requirements. The audit/ testing may be conducted by member's own personnel not involved in framing or implementing the AML program or it may be done by a qualified third party. The report of such an audit/testing should be placed before the senior management for making suitable modifications/improvements in the AML program.

ENFORCEMENT OF SEBI ORDERS:

From time to time, SEBI passes orders against members/clients. Members are required to ensure the enforcement of the same. On receipt of such orders, the Exchange issues circulars for the information of members and also updates the same on the website under the heading "Regulatory Actions".

Members are required to ensure that in cases where clients are debarred from trading, the accounts are immediately blocked.

CHAPTER 3
RISK MANAGEMENT

3.1 INTRODUCTION

SEBI has, from time to time, put in place various risk containment measures to address the risks involved in the cash and derivatives market. These measures have successfully and efficaciously addressed the market risks. However, to keep pace with the dynamic state of the markets, risk management systems cannot remain static and has to constantly address the changing risk profile of the market. Further, there were also certain differences observed between the risk management systems in the cash and derivatives market.

With an objective of aligning and streamlining the risk management framework across the cash and derivatives markets and to consolidate all the existing circulars on risk management for the cash market, the Advisory Committee of Derivatives and Market Risk Management of SEBI (RMG), in its various meetings reviewed the extant provisions relating to margins and risk management framework in the cash market. After detailed deliberations, the RMG has recommended a comprehensive risk management framework for the cash market. The comprehensive risk management framework has been finalised after a due consultative process with the public.

As per SEBI Directive, the Stock Exchanges should put in place the necessary systems to ensure the operationalization of the comprehensive risk management framework and that they have tested the software and removed any glitches in its operation to avoid any problems in the live environment.

Further, the Stock Exchanges, are advised to strengthen their monitoring and surveillance systems and take such timely actions as and when necessary.

3.2 RISK CONTAINMENT MEASURES

A sound risk management system is integral to/pre-requisite for an efficient clearing and settlement system. The National Securities Clearing Corporation Ltd. (NSCCL), a wholly owned subsidiary of NSE, was incorporated in August 1995. It was set up to bring and sustain confidence in clearing and settlement of securities; to promote and maintain, short and consistent settlement cycles; to provide counter-party risk guarantee, and to operate a tight risk containment system. NSCCL commenced clearing operations in April 1996.

NSCCL ensures that trading members' obligations are commensurate with their net worth. In recognition of the fact that market integrity is the essence of any financial market and believing in the philosophy that prevention is better than cure, NSCCL has put in place a comprehensive risk management system which is constantly monitored and upgraded to pre-empt market failures.

Risk containment measures include capital adequacy requirements of members, monitoring of member performance and track record, stringent margin requirements, position limits based on capital, online monitoring of member positions and automatic disablement from trading when limits are breached.

To safeguard the interest of the investors, NSE administers an effective market surveillance system to curb excessive volatility, detect and prevent price manipulation and follows a system of price bands. Further, the exchange maintains strict surveillance over market activities in liquid and volatile securities.

Clearing Entities

Clearing and settlement activities in the F&O segment are undertaken by NSCCL with the help of the following entities:

Clearing Members

In the F&O segment, some members, called self clearing members, clear and settle their trades executed by them only either on their own account or on account of their clients. Some others called trading member-cum-clearing member, clear and settle their own trades as well as trades of other trading members (TMs). Besides, there is a special category of members, called professional clearing members (PCM) who themselves do not trade but clear and settle trades executed by TMs. The members clearing their own trades and trades of others, and the PCMs are required to bring in additional security deposits in respect of every TM whose trades they undertake to clear and settle.

Clearing Banks

Funds settlement takes place through clearing banks. For the purpose of settlement all clearing members are required to open a separate bank account with NSCCL designated clearing bank for F&O segment. The Clearing and Settlement process comprises of the following three main activities:

1) Clearing
2) Settlement
3) Risk Management

<u>Settlement Process at NSCCL</u>

The settlement process begins as soon as members' obligations are determined through the clearing process. The settlement process revolves around the clearing corporation, which with the help of clearing banks and depositories, with clearing corporation providing a major link between clearing banks and depositories ensures actual movement of funds as well as securities on the prescribed pay-in and pay-out day.

This requires members to bring in their funds/securities to the clearing corporation. The Clearing Members (CMs), make the securities available in designated accounts with the two depositories (CM pool account in the case of NSDL and designated settlement accounts in the case of CDSL). The depositories move the securities available in the pool accounts to the pool account of the clearing corporation. Likewise CMs with funds obligations make funds available in the designated accounts with clearing banks. The clearing corporation sends electronic instructions to the clearing banks to debit designated CMs' accounts to the extent of payment obligations. The banks process these instructions, debit accounts of CMs and credit accounts of the clearing corporation. This constitutes pay-in of funds and of securities.

After processing for shortages of funds/securities and arranging for movement of funds from surplus banks to deficit banks through RBI clearing, the clearing corporation sends electronic instructions to the depositories/clearing banks to release pay-out of securities/funds. The depositories and clearing banks debit accounts of the Clearing Corporation and credit accounts of CMs. This constitutes pay out of funds and securities.

Settlement is deemed to be complete upon declaration and release of pay-out of funds and securities. The settlement is performed by NSCCL as per well-defined settlement cycle.

3.2.1 Settlement Guarantee Mechanism

NSCCL has adopted the principle of 'novation' for settlement of all trades. It is the legal counter-party to the settlement obligations of every member. NSCCL carries out the clearing and settlement of the trades executed in the Equities and Derivatives segments and operates Subsidiary General Ledger (SGL) for settlement of trades in government securities.

NSCCL meets all settlement obligations, regardless of member complying with his obligations, without any discretion. Once a member fails on any obligations, NSCCL immediately initiates measures to reduce exposure limits, withhold pay out of securities, square up open positions, disable trading terminal until member's obligations are fully discharged.

NSCCL assumes the counter party risk of each member and guarantees financial settlement. Counter party risk is guaranteed through a fine tuned risk management system and an innovative method of on-line position monitoring and automatic disablement. A large Settlement Guarantee Fund provides the cushion for any residual risk. In the event of failure of a trading member to meet settlement obligations or committing default, the Fund is utilized to the extent required for successful completion of the settlement. This has eliminated counter party risk of trading on the Exchange. The market has now full confidence that settlements will take place in time and will be completed irrespective of possible default by isolated trading members. The concept of guaranteed settlements has completely changed the way market safety is perceived.

The Settlement Guarantee Fund is an important element in facilitating the settlement process. The Fund operates like a self-insurance mechanism and is funded through the contributions made by trading members, transaction charges, etc. recovered by NSCCL.

A part of the cash deposit and the entire security deposit of every clearing member with the Exchange has been converted into an initial contribution towards the Settlement Guarantee Fund, as indicated below:

Equities Segment

Type of Member	Cash Deposit (Rs. Lakh)	Security Deposit in the form of Bank FDR/ guarantee or securities (Rs. Lakh)
Individual/ partnership firms	6.00	17.50
Corporates	15.00	25.00
Professional Clearing Member	25.00	25.00

Derivative Segment

Type of Member	Cash Deposit (Rs. Lakh)	Security Deposit in the form of Bank FDR/guarantee or securities (Rs. Lakh)
Trading member (contributed by Clearing Member)	2.00	8.00
Clearing Member	25.00	25.00

There is a provision that as and when volumes of business increase, members may be required to make additional contributions allowing the fund to grow alongwith the market volumes.

3.2.2 Asset/Capital Adequacy

The trading members are admitted to the different segments of the Exchange subject to the provision of the Securities Contracts (Regulation) Act, 1956 and the Securities and Exchange Board of India Act, 1992.

At NSE, following are the combinations of market segments available with the respective fees, deposits and networth requirements:

CORPORATES

Table 3.1: Eligibility Criteria for Membership-Corporates (Amount in Rs. Lakh)					
Particulars/ Segments	**CM**	**CM and F&O**	**WDM**	**CM and WDM**	**CM,WDM and F&O**
Minimum Paid-up capital	30	30	30	30	30
Net Worth	100	100 (Membership in CM segment and Trading/Trading and self clearing membership in F&O segment) 300 (Membership in CM segment and Trading and Clearing membership in F&O segment)	200	200	200 (Membership in WDM segment, CM segment and Trading/Trading and Self Clearing membership in F&O segment) 300 (Membership in WDM segment, CM segment and Trading and Clearing membership in F&O segment)
Interest Free Security Deposit with NSEIL	85	110	150	235	260
Interest Free Security Deposit with NSCCL	15	15 *	NIL	15	15 *
Collateral Security Deposit with NSCCL	25	25**	NIL	25	25**
Annual Subscription	1	1	1	2	2
Advance Minimum Transaction Charges for Futures Segment	NIL	1	NIL	NIL	1
Education	Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Derivatives and Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM & Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM, Capital Market Module of NCFM.& SEBI approved certification test for Derivatives
Experience	--------------Two year's experience in securities market----------------------				
Track Record	The Directors should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.				

Net worth requirement for Professional Clearing members in F&O segment is Rs. 300 lakhs. Further, a Professional Clearing member needs to bring IFSD of 25 lakhs with NSCCL and Collateral Security Deposit (CSD) of 25 lakh with NSCCL as deposits.

**Additional IFSD of 25 lakhs with NSCCL is required for Trading and Clearing members (TM-CM) and for Trading and Self clearing members (TM/SCM).*

*** Additional Collateral Security Deposit (CSD) of 25 lakhs with NSCCL is required for Trading and Clearing members (TM-CM) and for Trading and Self clearing member s(TM/SCM). In addition, a member clearing for others is required to bring in IFSD of Rs. 2 lakh and CSD of Rs. 8 lakh per trading member he undertakes to clear in the F&O segment.*

INDIVIDUALS/ PARTNERSHIP FIRMS

Applicants recommended for admission will be required to pay the following fee / deposits and also maintain networth as given below:

Table 3.2: Eligibility Criteria for Membership- Individuals/ Partnership Firms

(Amount in Rs. lakh)

Particulars	CM	CM and F&O	WDM	CM and WDM	CM,WDM and F&O
Net Worth	75	75 (Membership in CM segment and Trading membership in F&O segment) 100 (Membership in CM segment and Trading and Self clearing membership in the F&O segment) 300 (Membership in CM segment and Trading and Clearing membership in F&O segment)	200	200	200 (Membership in WDM segment, CM segment and Trading/Trading and Self Clearing membership in F&O segment) 300 (Membership in WDM segment,CM segment and Trading and clearing membership on F&O segment)
Interest Free Security Deposit (IFSD) with NSEIL	26.5	51.5	150	176.5	201.5
Interest Free Security Deposit (IFSD) with NSCCL	6	6 *	NIL	6	6*
Collateral Security Deposit (CSD) with NSCCL	17.5	17.5 **	NIL	17.5	17.5 **
Annual Subscription	0.5	0.5	1	1.5	1.5
Advance Minimum Transaction Charges for Futures Segment	NIL	1	NIL	NIL	1
Track Record	The Partners/Proprietor should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.				

**Additional IFSD of 25 lakhs with NSCCL is required for Trading and Clearing Members (TM-CM) and for Trading and Self clearing members (TM/SCM).*

*** Additional Collateral Security Deposit (CSD) of 25 lakh with NSCCL is required for Trading and Clearing members (TM-CM) and for Trading and Self clearing members (TM/SCM).*

Table 3.3: Currency Derivatives- Corporates, Individuals and Firms (Amount in Rs. Lakh)							
Particulars	**NSE Members**		**NCDEX Members**		**New Applicants**		
	Trading Mem-bership	Trading cum Clearing Mem-bership	Trading Member ship	Trading cum Clearing Membership	Trading Mem-bership	Trading cum Clearing Membership	Professional Clearing Mem-bership
Networth	100	1000	100	1000	100	1000	1000
Interest Free Security Deposit with NSEIL	2	2	2	2	2	2	-
Collateral Security Deposit with NSEIL	8	8	10.5	13	13	18	-
Interest Free Security Deposit with NSCCL	-	25	-	25	-	25	25
Collateral Security Deposit with NSCCL	-	25	-	25	-	25	25
Education	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination						
Experience	---------------Two year's experience in securities market-----------------------						
Track Record	The Directors/Partners/Proprietor should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.						

Capital adequacy requirements from members stipulated by the NSE are substantially in excess of the minimum statutory requirements as also to those stipulated by other stock exchanges.

Equities Segment

Members are required to provide liquid assets which adequately cover various margins and base minimum capital requirements. Liquid assets of the member include their initial membership deposits including the security deposits. Members may provide additional collateral deposit towards liquid assets, over and above their minimum membership deposit requirements.

The acceptable forms of capital towards liquid assets and the applicable haircuts are listed below:

1. Cash Equivalents: Cash, Bank Fixed Deposits with approved custodians, Bank Guarantees from approved banks, Government Securities with 10% haircut, Units of liquid mutual funds or gilt funds with 10% haircut.

2. Other Liquid assets: (i) Liquid (Group I) Equity Shares in demat form, as specified by NSCCL from time to time deposited with approved Custodians. Haircuts applied

are equivalent to the VaR margin for the respective securities (ii) Mutual fund units other than those listed under cash equivalents decided by NSCCL from time to time. Haircut equivalent to the VaR margin for the units computed using the traded price if available, or else, using the NAV of the unit treating it as a liquid security.

Derivatives Segment

Minimum Capital

A Clearing Member is required to meet with the minimum liquid networth (MKNW) requirements prescribed by NSCCL before activation. The CM has also to ensure that MLNW is maintained in accordance with the requirements of NSCCL at all points of time, after activation.

Every CM is required to maintain MLNW of Rs.50 lakh with NSCCL in the following manner:

(1) Rs. 25 lakh in the form of cash.

(2) Rs.25 lakh in any one form or combination of the following forms: (a) cash (b) fixed deposit receipts with approved custodians (c) Bank Guarantee from approved banks (d) approved securities in demat form deposited with approved custodians

In addition to the above minimum base capital requirements, every CM is required to maintain MLNW of Rs.10 lakh, in respect of every trading member (TM) whose deals such CM undertakes to clear and settle, in the following manner:

(1) Rs. 2 lakh in the form of cash.

(2) Rs.8 lakh in a one form or combination of the following: (a) cash (b) fixed deposit receipts with approved custodians (c) Bank Guarantee from approved banks (d) approved securities in demat form deposited with approved custodians

Any failure on the part of a CM to meet with the minimum capital requirements at any point of time, will be treated as a violation of the Rules, Bye-Laws and Regulations of NSCCL and would attract disciplinary action inter-alia including, withdrawal of trading facility and/or clearing facility, closing out of outstanding positions etc.

Additional Base Capital

Clearing members may provide additional base capital /collateral deposit (additional base capital) to NSCCL and/or may wish to retain deposits and/or such amounts which are receivable from NSCCL, over and above their minimum deposit requirements, towards initial margin and/or other obligations.

Clearing members may submit such deposits in any one form or combination of the following forms: (i) Cash (ii) Fixed Deposit Receipts with approved custodians (iii) Bank Guarantee from approved banks (iv) approved securities in demat form deposited with approved custodians.

Effective Deposits / Liquid Networth

Effective deposits

All collateral deposits made by CMs are segregated into cash component and non-cash component.

For Additional Capital, cash component means cash, bank guarantee, fixed deposit receipts, T-bills and dated government securities. Non-cash component shall mean all forms of collateral deposits like deposit of approved demand securities.

At least 50% of the Effective Deposits should be in the form of cash.

Liquid Networth

Liquid Networth is computed as total liquid assets less initial margin payable at any point in time.

The Liquid Networth maintained by CMs at any point in time should not be less than Rs. 50 lakh (referred to as Minimum Liquid Net Worth).

3.2.3 Margins

<u>Equities Segment</u>

As per SEBI directives, the stocks are categorized as follows for imposition of margins:

- The Stocks which have traded atleast 80% of the days for the previous six months shall constitute the Group I (Liquid Securities) and Group II (Less Liquid Securities).
- Out of the scrips identified above, the scrips having mean impact cost of less than or equal to 1% shall be categorized under Group I and the scrips where the impact cost is more than 1, shall be categorized under Group II.
- The remaining stocks shall be classified into Group III (Illiquid Securities).
- The impact cost shall be calculated on the 15th of each month on a rolling basis considering the order book snapshots of the previous six months. On the basis of the impact cost so calculated, the scrips shall move from one group to another group from the 1st of the next month.
- For securities that have been listed for less than six months, the trading frequency and the impact cost shall be computed using the entire trading history of the security.
- For the first month and till the time of monthly review a newly listed security shall be categorised in that Group where the market capitalization of the newly listed security exceeds or equals the market capitalization of 80% of the securities in that particular group. Subsequently, after one month, whenever the next monthly review is carried

out, the actual trading frequency and impact cost of the security 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 security for group categorization.

Daily margins payable by members consists of the following:

1. Value at Risk Margin
2. Extreme Loss Margin
3. Mark-To-Market Margin

Daily margin, comprising of the sum of VaR margin, Extreme Loss Margin and mark to market margin is payable.

Value at Risk Margin

VaR Margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99% Value at Risk). For liquid securities, the margin covers one-day losses while for illiquid securities, it covers three-day losses so as to allow the clearing corporation to liquidate the position over three days. This leads to a scaling factor of square root of three for illiquid securities.

For liquid securities, the VaR margins are based only on the volatility of the security while for other securities, the volatility of the market index is also used in the computation.

Computation of VaR Rate:

VaR is a single number, which encapsulates whole information about the risk in a portfolio. It measures potential loss from an unlikely adverse event in a normal market environment. It involves using historical data on market prices and rates, the current portfolio positions, and models (e.g., option models, bond models) for pricing those positions. These inputs are then combined in different ways, depending on the method, to derive an estimate of a particular percentile of the loss distribution, typically the 99^{th} percentile loss.

The volatility is calculated as follows:

$$\boxed{(\sigma_t)^2 = \lambda(\sigma_{t-1})^2 + (1-\lambda)(r_t)^2}$$

σ^2 = is Variance

σ = standard deviation of daily returns

λ = is Lambda factor

r = Returns of the securities for the day

t = time

λ is a parameter which indicates how rapidly volatility estimate changes. The value of λ is fixed at 0.94 which has been arrived at on the basis of the empirical study done by Prof. J. R. Varma (F&O returns).

The 'return' is defined as the logarithmic return: $r_t = \ln(I_t/I_{t-1})$ where I_t is the security price at **time t.**

- **Security sigma** means the volatility of the security computed as at the end of the previous trading day. The volatility is computed as mentioned above
- **Security VaR** means the higher of 7.5% or 3.5 security 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.
- **Index VaR** means the higher of 5% or 3 index sigmas. 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 securities:

Liquidity Categorization	One-Day VaR	Scaling factor for illiquidity	VaR Margin
Liquid Securities (Group I)	Security VaR	1.00	Security VaR
Less Liquid Securities (Group II)	Higher of Security VaR and three times Index VaR	1.73 (square root of 3.00)	Higher of 1.73 times Security 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

VaR margin rate for a security constitutes the following:

1. Value at Risk (VaR) based margin, which is arrived at, based on the methods stated above. The index VaR, for the purpose, would be the higher of the daily Index VaR based on S&P CNX NIFTY or BSE SENSEX. The index VaR would be subject to a minimum of 5%.
2. Security specific Margin: NSCCL may stipulate security specific margins for the securities from time to time.

The VaR margin rate computed as mentioned above will be charged on the net outstanding position (buy value-sell value) of the respective clients on the respective securities across all open settlements. There would be no netting off of positions across different settlements. The net position at a client level for a member are arrived at and thereafter, it is grossed across all the clients including proprietary position to arrive at the gross open position.

For example, in case of a member, if client A has a buy position of 1000 in a security and client B has a sell position of 1000 in the same security, the net position of the member in the security would be taken as 2000. The buy position of client A and sell position of client B in the same security would not be netted. It would be summed up to arrive at the member's open position for the purpose of margin calculation.

The VaR margin shall be collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade.

The VaR margin so collected shall be released on completion of pay-in of the settlement.

Extreme Loss Margin

The Extreme Loss Margin for any security shall be higher of:

1. 5%, or
2. 1.5 times the standard deviation of daily logarithmic returns of the security price in the last six months. This computation shall be done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value shall be applicable for the next month.

Upfront margin rates (VaR Margin + Extreme Loss Margin) applicable for all securities in the Trade for Trade segment shall be 100%.

In view of market volatility, SEBI may direct stock exchanges to change the margins from time-to-time in order to ensure market safety and safeguard the interest of investors.

The Extreme Loss Margin shall be collected/ adjusted against the total liquid assets of the member on a real time basis.

The Extreme Loss Margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including its proprietary position.

There would be no netting off of positions across different settlements. The Extreme Loss Margin collected shall be released on completion of pay-in of the settlement.

Mark-to-Market Margin

Mark to market loss shall be calculated by marking each transaction in security to the closing price of the security at the end of trading. In case the security has not been traded on a particular day, the latest available closing price at the NSE shall be considered as the closing price. In case the net outstanding position in any security is nil, the difference between the buy and sell values shall be considered as notional loss for the purpose of calculating the mark-to-market margin payable.

MTM Profit/Loss = [(Total Buy Qty X Close price) – Total Buy Value] - [Total Sale Value - (Total Sale Qty X Close price)]

The mark to market margin (MTM) shall be collected from the member before the start of the trading of the next day.

The MTM margin shall also be collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange.

Example 1:

A trading member has two clients with the following MTM positions. What will be the MTM for the trading member?

Client	**Security X**		**Security Y**		**Security Z**	
	T-1 Day	T Day	T-1 Day	T Day	T-1 Day	T Day
A	800	300	-500	-1200	0	0
B	1000	500	0	0	-1500	-800

The MTM for the trading member will be -1700.

The MTM margin shall be collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including its proprietary position. For this pu rpose, the position of a client would be netted across its various securities and the positions of all the clients of a broker would be grossed.

There would be no netting off of the positions and setoff against MTM profits across two 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 would be permitted.

Example 2:

A trading member has two clients with the following positions. What will be the gross open position for the member in X, Y and Z?

Client	**Security**	**Settlement**	**Buy Value**	**Sell Value**
Client A	Security X	2005001	1000	1100
	Security Y	2005002	3000	2550
Client B	Security X	2005001	4500	2400
	Security Z	2005002	7000	10450

The gross open position for the member in X, Y & Z will be 2200, 450, 3450 respectively.

In case of Trade for Trade Segment (TFT segment) each trade shall be marked to market based on the closing price of that security.

The MTM margin so collected shall be released on completion of pay-in of the settlement.

- Penalty applicable for margin violation shall be levied on a monthly basis based on slabs as mentioned below:

Instances of Disablement	Penalty to be levied
1st instance	0.07% per day
2nd to 5th instance of disablement	0.07% per day +Rs.5000/- per instance from 2nd to 5th instance
6th to 10th instance of disablement	0.07% per day+ Rs. 20000 (for 2nd to 5th instance) +Rs.10000/- per instance from 6th to 10th instance
11th instance onwards	0.07% per day +Rs. 70,000/- (for 2nd to 10th instance) +Rs.10000/- per instance from 11th instance onwards. Additionally, the member will be referred to the Disciplinary Action Committee for suitable action

Instances as mentioned above shall refer to all disablements during market hours in a calendar month.

- Penal charge of 0.07% per day shall be levied on the amount of margin shortage throughout the period of non-payment.

Institutional Transactions

Institutional businesses i.e., transactions done by all institutional investors are margined in the capital market segment from T+1 day subsequent to confirmation of the transactions by the custodians. For this purpose, institutional investors include

- Foreign Institutional Investors registered with SEBI. (FII)
- Mutual Funds registered with SEBI. (MF)
- Public Financial Institutions as defined under Section 4A of the Companies Act, 1956. (DFI)
- Banks, i.e., a banking company as defined under Section 5(1)(c) of the Banking Regulations Act, 1949. (BNK)
- Insurance companies registered with IRDA. (INS)
- Pension Funds regulated by Pension Fund Regulatory and Development Authority (PFRDA). (PNF)

Levy of margins:

- Institutional transactions are identified by the use of the participant code at the time of order entry.
- In respect of institutional transactions confirmed by the custodians the margins are levied on the custodians.
- In respect of institutional transactions rejected/not accepted by the custodians the margins are levied on the members who have executed the transactions.

- The margins are computed and levied at a client (Custodial Participant code) level in respect of institutional transactions and collected from the custodians/members.

Capping of margins

In case of a buy transaction, the VaR margins, Extreme loss margins and mark to market losses together shall not exceed the purchase value of the transaction. In case of a sale transaction, the VaR margins and Extreme loss margins together shall not exceed the sale value of the transaction and mark to market losses shall also be levied.

Exemption from margins:

- In cases where early pay-in of securities is made prior to the securities pay-in, such positions for which early pay-in (EPI) of securities is made shall be exempt from margins. The EPI would be allocated to clients having net deliverable position, on a random basis. However, members shall ensure to pass on appropriate early pay-in benefit of margin to the relevant clients.
- In cases where early pay-in of funds is made prior to the funds pay-in, such positions for which early pay-in (EPI) of funds is made shall be exempt from margins based on the client details provided by the member/ custodian. Early pay-in of funds specified by the member/custodians for a specific client and for a settlement shall be allocated against the securities in the descending order of the net buy value of outstanding position of the client.

Release of margins:

All margins collected for a settlement for a member/custodian are released on their individual completion of full obligations of funds and securities by the respective member/custodians after crystallization of the final obligations on T+1 day. Further, members are provided a facility to provide confirmation from their clearing banks towards their funds pay-in obligations on settlement day before prescribed pay-in time.

Derivatives Segment

NSCCL has developed a comprehensive risk containment mechanism for the Futures & Options segment. The most critical component of a risk containment mechanism for NSCCL is the online position monitoring and margining system. The actual margining and position monitoring is done on-line, on an intra-day basis. NSCCL uses the SPAN (Standard Portfolio Analysis of Risk) system for the purpose of margining, which is a portfolio based system.

The objective of SPAN is to identify overall risk in a portfolio of futures and options contracts for each member. The system treats futures and options contracts uniformly, while at the same time recognizing the unique exposures associated with options portfolios like extremely deep out-of-the-money short positions, inter-month risk and inter-commodity risk.

SPAN is used to determine performance bond requirements (margin requirements), its overriding objective is to determine the largest loss that a portfolio might reasonably be expected to suffer from one day to the next day.

SPAN constructs scenarios of probable changes in underlying prices and volatilities in order to identify the largest loss a portfolio might suffer from one day to the next. It then sets the margin requirement at a level sufficient to cover this one-day loss.

Initial Margin

NSCCL collects initial margin up-front for all the open positions of a CM based on the margins computed by NSCCL-SPAN. A CM is in turn required to collect the initial margin from the TMs and his respective clients. Similarly, a TM should collect upfront margins from his clients.

Initial margin requirements are based on 99% value at risk over a one day time horizon. However, in the case of futures contracts (on index or individual securities), where it may not be possible to collect mark to market settlement value, before the commencement of trading on the next day, the initial margin may be computed over a two-day time horizon, applying the appropriate statistical formula. The methodology for computation of Value at Risk percentage is as per the recommendations of SEBI from time to time.

Premium Margin

In addition to Initial Margin, Premium Margin would be charged to members. The premium margin is the client wise margin amount payable for the day and will be required to be paid by the buyer till the premium settlement is complete.

Assignment Margin

Assignment Margin is levied on a CM in addition to SPAN margin and Premium Margin. It is required to be paid on assigned positions of CMs towards Exercise Settlement obligations for option contracts on individual securities and index, till such obligations are fulfilled.

The margin is charged on the Net Exercise Settlement Value payable by a Clearing Member towards Exercise Settlement and is deductible from the effective deposits of the Clearing Member available towards margins.

Assignment margin is released to the CMs for exercise settlement pay-in.

Payment of Margins

The initial margin is payable upfront by Clearing Members. Initial margins can be paid by members in the form of Cash, Bank Guarantee, Fixed Deposit Receipts and approved securities.

Non-fulfillment of either the whole or part of the margin obligations will be treated as a violation of the Rules, Bye-Laws and Regulations of NSCCL and will attract penal charges @ 0.07% per day of the amount not paid throughout the period of non-payment. In addition NSCCL may at its discretion and without any further notice to the clearing member, initiate other displinary action, inter-alia including, withdrawal of trading facilities and/ or clearing facility, close out of outstanding positions, imposing penalties, collecting appropriate deposits, invoking bank guarantees/ fixed deposit receipts, etc.

Violations

PRISM (Parallel Risk Management System) is the real-time position monitoring and risk management system for the Futures and Options market segment at NSCCL. The risk of each trading and clearing member is monitored on a real-time basis and alerts/disablement messages are generated if the member crosses the set limits.

- Initial Margin Violation
- Exposure Limit Violation
- Trading Memberwise Position Limit Violation
- Client Level Position Limit Violation
- Market Wide Position Limit Violation
- Violation arising out of misutilisation of trading member/ constituent collaterals and/ or deposits
- Violation of Exercised Positions

Clearing members, who have violated any requirement and / or limits, may submit a written request to NSCCL to either reduce their open position or, bring in additional cash deposit by way of cash or bank guarantee or FDR or securities.

A penalty of Rs. 5000/- is levied for each violation and is levied on monthly basis. In respect of violation on more than one occasion on the same day, penalty in case of second and subsequent violation during the day will be increased by Rs.5000/- for each such instance. (For example in case of second violation for the day the penalty leviable will be Rs.10000/-, Rs.15000 for third instance and so on).

Where the penalty levied on a clearing member/ trading member relates to a violation of Client-wise Position Limit, the clearing member/ trading member may in turn, recover such amount of penalty from the concerned clients who committed the violation

Market Wide Position Limits for derivative contracts on underlying stocks

At the end of each day the Exchange shall test whether the market wide open interest for any scrip exceeds 95% of the market wide position limit for that scrip. If so, the Exchange shall take note of open position of all client/ TMs as at the end of that day in that scrip, and from next day onwards the client/ TMs shall trade only to decrease their positions through offsetting positions till the normal trading in the scrip is resumed.

The normal trading in the scrip shall be resumed only after the open outstanding position comes down to 80% or below of the market wide position limit.

A facility is available on the trading system to display an alert once the open interest in the futures and options contract in a security exceeds 60% of the market wide position limits specified for such security. Such alerts are presently displayed at time intervals of 10 minutes.

At the end of each day during which the ban on fresh positions is in force for any scrip, when any member or client has increased his existing positions or has created a new position in that scrip the client/ TMs shall be subject to a penalty of 1% of the value of increased position subject to a minimum of Rs.5000 and maximum of Rs.1,00,000. The positions, for this purpose, will be valued at the underlying close price.

The penalty shall be recovered from the clearing member affiliated with such trading members/ clients on a T+1 day basis along with pay-in. The amount of penalty shall be informed to the clearing member at the end of the day.

Position Limits

Clearing Members are subject to the following exposure / position limits in addition to initial margins requirements:

- Exposure Limits
- Trading Memberwise Position Limit
- Client Level Position Limit
- Market Wide Position Limits (for Derivative Contracts on Underlying Stocks)
- Collateral limit for Trading Members

Cross Margining

An off-setting position for a client in different segments has lower risk as loss on one position is off-set by profit in the other position. An example for an off-setting position can be a buy position of 100 in security "A" in capital market and short position of 100 in stock futures of security "A" in derivative segment. As the risk of the off-setting positions is lower, the margin requirement for the combined positions has to be lower which is considered as cross margining.

The benefit of cross margining is provided on the following off setting positions:

a. Index futures and constituent stock futures for same expiry in F&O segment

b. Index futures and constituent stock positions in Cash segment

c. Stock futures in F&O segment and stock positions in Cash segment

The offseting positions in respect of (a) and (b) above are computed considering the weightage of that security in the index. A file is provided by NSE on its website www.nseindia.com providing minimum number of units of stock/stock future required to offset position in index future. The number of units is changed only in case of change in share capital of the constituent security due to corporate action or issue of additional share capital or change in the constituents of the index.

The cross margining benefits are computed and provided on an on-line real time basis in respect of all existing and confirmed positions. The offsetting positions are margined only to the extent of 25% of all applicable margins (all upfront margins, i.e. initial margins and Exposure margins).

3.2.4 Inspection of Books and Investigation

The Exchange conducts an inspection of the trading members in the capital market segment and futures and options segment of the Exchange as per regulatory requirements every year. The Exchange also conducts an inspection of trading members in the wholesale debt market segment and clearing members in CM and F&O segment every year. During the inspection the inspection team verify the compliance of provisions of applicable act, rules, regulations, bye-laws, guidelines and circulars by trading and clearing members. The Exchange initiates necessary disciplinary actions against the trading / clearing members in respect of the violations observed during the course of inspection.

The investigation is based on various alerts, which require further analysis. If further analysis suggests any possible irregular activity, which deviates from the past trends, patterns and/ or concentration of trading at NSE at the member level, a more detailed investigation is undertaken. If the detailed investigation establishes any irregular activity, disciplinary action is initiated against the member. If the investigation suggests suspicious of possible irregular activity across exchange and/ or possible involvement of clients, the same is informed to SEBI.

3.2.5 Penal Charges

Equities Segment

Penal Charges

Penalties are charged to members for: (i) failure to fulfil their funds obligations (ii) failure to fulfil their securities deliverable obligations (iii) Margin Violations (iv) Security Deposit Shortages (v) Other violations in respect of client code modifications, non-confirmation of custodial trades, company objections reported against the members' etc.

Type of Default	Penalty Charges
Shortages in Funds pay-in	0.07% per day
Shortages in security deposit	0.07% per day
Shortages in Securities Pay-in	0.05% per day
Margin violations	0.07% per day.
Non-allocation of INST trades, non-confirmation / rejection of custodial trades	0.10% of total value or Rs. 10,000/- whichever is lower for a settlement.
Company Objections Bad & Fake and Company Objections Rectification / Replication of bad and fake delivery in all markets	0.09% per day from the day of non compliance
Wrong claims of dividend, bonus etc.	Rs. 100 per claim
Same set of shares reported twice under objection	10% of value with a minimum of Rs.5000/- per claim
Incorrect undertaking on Form 6-I	10% of value with a minimum of Rs.5000/- per claim
Late withdrawal of company objections	Rs.2 per share with a minimum of Rs.200/-
Non Settlement of trade under TT segment	0.50% of trade value
Cancellation of trade under TT segment	Rs.1000/- per trade per side
Failure to settle within the stipulated time under TT segment	Maximum of Rs.10000/- or Rs.500/- per trade per day, subject to maximum of 2.50 times the value of trade for each side
Failure to report within the stipulated time under TT segment	Maximum of Rs.5000/- or Rs.500/- per trade per day, subject to maximum of 2.50 times the value of trade for each side

Derivatives Segment

Penalties

The following penal charges are levied for failure to pay funds/ settlement obligations:

Penal Charges

A penal charge will be levied on the amount in default as per the byelaws relating to failure to meet obligations by any Clearing Member.

Type of Default	Penalty Charge per day	Chargeable to
Overnight settlement shortage of value more than Rs.5 lakh	0.07%	Clearing Member
Overnight settlement shortage of value less than Rs.5 lakh	0.07%	Clearing Member
Violations on account of MTM multiple shortage	0.07%	Clearing Member
Violations on account of Initial Margin shortage	0.07%	Clearing Member / Trading Member
Violations on account of Open Interest by TM	Nil	Trading Member
Shortage of Base Capital of the member	0.07%	Clearing Members
Shortage of Capital cushion	0.07%	Clearing Members

Violations if any by the custodial participants shall be treated in line with those by the trading member and accordingly action shall be initiated against the concerned clearing member.

3.2.6 On-line Monitoring

NSCCL has in place an on-line position monitoring and surveillance system whereby positions of the members is monitored on a real time basis. A system of alerts has been built in so that both the member and NSCCL are alerted when the margins of a member approaches pre-set levels (70%, 85%, 90%, 95% and 100%). The system also allows NSCCL to further check the micro-details of members' positions, if required.

This facilitates NSCCL to take pro-active action. NSCCL has discretion to initiate action suo moto for reducing a member position, if required, more particularly where a member, after NSCCL requiring him to reduce his position fails to close out positions or make additional margin calls.

The on-line surveillance mechanism also generates various alerts/reports on any price/volume movement of securities not in line with past trends/patterns. For this purpose the exchange maintains various databases to generate alerts. Alerts are scrutinized and if necessary taken up for follow up action. Open positions of securities are also analysed. Besides this, rumors in the print media are tracked and where they are price sensitive, companies are contacted for verification. Replies received are informed to the members and the public.

CHAPTER 4
RULES AND REGULATIONS*

This chapter deals with legislative and regulatory provisions relevant for Securities Market in India.

Legislations

The four main legislations governing the securities market are:(a) the Securities Contracts (Regulation) Act, 1956, preventing undesirable transactions in securities by regulating the business of dealing in securities; (b) the Companies Act, 1956, which is an uniform law relating to companies throughout India; (c) the SEBI Act, 1992 for the protection of interests of investors and for promoting development of and regulating the securities market; and (d) the Depositories Act, 1996 which provides for electronic maintenance and transfer of ownership of dematerialised securities.

Rules and Regulations

The Government has framed rules under the SC(R)A, 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 these Acts, 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.

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), Ministry of Corporate Affairs, Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) and Securities Appellate Tribunal (SAT).

4.1 SECURITIES CONTRACTS (REGULATION) ACT, 1956

The Securities Contracts (Regulation) Act, 1956 [SC(R)A] is meant to prevent undesirable transactions in securities by regulating the business of dealing in with them and by providing for certain other matters connected with securities dealing. This is the principal act which

* This chapter only touches upon the broad regulatory framework for the Indian securities markets, giving the main clauses of various acts, rules and regulations that have a bearing on the functioning of the markets. For greater details, it is recommended that original acts, rules and regulations may be referred to.

governs the trading of all securities in India. It 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, the 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.

Key definitions:

SECURITIES CONTRACTS (REGULATION) ACT, 1956

The SC(R)A is meant to prevent undesirable transactions in securities by regulating the business of dealing in them and by providing for certain other matters connected with securities dealing. This is the principal Act, which governs the trading of securities in India. It 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 the regulatory jurisdiction in the following areas:

(a) stock exchanges through a process of recognition and continued supervision,

(b) contracts and options in securities, and

(c) listing of securities on stock exchanges.

The definitions of some of the important terms used in the Act are given below:

'Recognised Stock Exchange' means a stock exchange, which is for the time being recognised by the Central Government under Section 4 of the SC(R)A.

'Stock Exchange' means –

(a) any body of individuals, whether incorporated or not, constituted before corporatisation and demutualization under sections 4A and 4B, or

(b) a body corporate incorporated under the Companies Act, 1956 (1 of 1956) whether under a scheme of corporatisation and demutualization or otherwise, for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities.

As per Section 2(h), the term "**securities**" include-

- 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.
- Derivative.
- Units or any other instrument issued by any collective investment scheme to the investors in such schemes.

- Security receipt as defined in clause (zg) of section 2 of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002
- Units or any other such instrument issued to the investor under any mutual fund scheme[1].
- Any certificate or instrument (by whatever name called), issued to an investor by an issuer being a special purpose distinct entity which possesses any debt or receivable, including mortgage debt, assigned to such entity, and acknowledging beneficial interest of such investor in such debt or receivable, including mortgage debt as the case may be.
- Government securities
- Such other instruments as may be declared by the Central Government to be securities.
- Rights or interests in securities.

As per section 2(ac), **"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 would be legal and valid if such contracts are-

(i) traded on a recognised stock exchange;

(ii) settled on the clearing house of the recognised stock exchange, in accordance with the rules and bye-laws of such stock exchanges.

"**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 despatch 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;

1 Securities shall not include any unit linked insurance policy or scrips or any such instrument or unit, by whatever name called, which provides a combined benefit risk on the life of the persons and investments by such persons and issued by an insurer referred to in clause (9) of section 2 of the insurance Act, 1938 (4 of 1938)

(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.

The SC(R)A deals with-

1. Stock exchanges, through a process of recognition and continued supervision,
2. Contracts options in securities
3. Listing of securities on stock exchanges
4. Delisting of securities
5. Penalities and procedures pertaining

Recognition of stock exchanges

By virtue of the provisions of the Act, the business of dealing in securities cannot be carried out without registration from SEBI. Any Stock Exchange which is desirous of being recognised has to apply to SEBI, which is empowered to grant recognition and prescribe conditions. This recognition can be withdrawn in the interest of the trade or public.

SEBI is authorised to call for periodical returns from the recognised Stock Exchanges and make enquiries in relation to their affairs. Every Stock Exchange is obliged to furnish annual reports to SEBI.

Recognised Stock Exchanges are allowed to make bye-laws for the regulation and control of contracts but subject to the previous approval of SEBI and SEBI has the power to amend the said bye-laws. The Central Government and SEBI have the power to supersede the governing body of any recognised stock exchange. The Central Government and SEBI also have powers to suspend the business of the recognised stock exchange to meet any emergency as and when it arises, by notifying in the official gazette.

Demutualisation of stock exchanges

Demutualisation means the segregation of ownership and management from the trading rights of the members of a recognised stock exchange in accordance with the scheme approved by the SEBI.

Contracts and Options in Securities

Organised trading activity in securities takes place on a recognised stock exchange. Section 13 of the SCRA provides that if a transaction in securities has to be validly entered into, such a transaction has to be either between the members of a recognised stock exchange or through a member of a Stock Exchange.

Listing of Securities

Where securities are listed on the application of any person in any recognised stock exchange, such person should comply with the conditions of the listing agreement with that stock exchange (Section 21). Where a recognised stock exchange acting in pursuance of any power given to it by its bye-laws, refuses to list the securities of any company, the company should be entitled to be furnished with reasons for such refusal and the company may appeal to Securities Appellate Tribunal (SAT) against such refusal.

Delisting of Securities

A recognised stock exchange may delist the securities of any listed companies on such grounds as are prescribed under the Act. Before delisting any company from its exchange, the recognised stock exchange has to give the concerned company a reasonable opportunity of being heard and has to record the reasons for delisting that concerned company. The concerned company or any aggrieved investor may appeal to SAT against such delisting. (Section 21A)

4.2 SECURITIES CONTRACTS (REGULATION) RULES, 1957

The Central Government has notified Securities Contracts (Regulation) Rules, 1957 (SCRR), in the exercise of powers conferred by section 30 of SC(R) Act, 1956 for carrying out the purpose of that Act. The powers under the SCRR, 1957 are exercisable by SEBI.

These rules detail the procedure for recognition of stock exchanges; withdrawal of such recognition; requirements of maintaining proper books of account by stock exchanges; submission of periodical returns by them to SEBI; requirements for listing of securities and units of collective investment schemes on recognized stock exchanges; registration of members of recognized stock exchanges etc

4.3 SECURITIES AND EXCHANGE BOARD OF INDIA ACT, 1992

Major part of the liberalisation process was the repeal of the Capital Issues (Control) Act, 1947, in May 1992. The Act had its origin during the war in 1943 when the objective was to channel resources to support the war effort. It was retained with some modifications as a means of controlling the raising of capital by companies and to ensure that national resources were channelled into proper lines, i.e., for desirable purposes to serve goals and priorities of the government, and to protect the interests of investors. Under the Act, any firm wishing to issue securities had to obtain approval from the Central Government, which also determined the amount, type and price of the issue.

As a part of the liberalisation process, the Capital Issues Control Act was repealed in 1992 paving way for market determined allocation of resources. With this, Government's 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: 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 companies listed on Stock Exchanges and companies intending to get their securities listed on any recognized stock exchange in the issuance of securities 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 to regulate and develop an orderly securities market. All the intermediaries and persons associated with securities market, viz., brokers and sub-brokers, underwriters, merchant bankers, bankers to the issue, share transfer agents and registrars to the issue, depositories, Participants, portfolio managers, debentures trustees, foreign institutional investors, custodians, venture capital funds, mutual funds, collective investments schemes, credit rating agencies, etc., should be registered with SEBI and should be governed by the SEBI Regulations pertaining to respective market intermediary.

Constitution of SEBI

The Central Government has constituted a Board by the name of SEBI under Section 3 of SEBI Act, 1992. The head office of SEBI is in Mumbai. SEBI may establish offices at other places in India.

The SEBI Board consists of the following members, namely:-

(a) A Chairman;

(b) Two members from amongst the officials of the Ministry of the Central Government dealing with Finance and administration of Companies Act, 1956;

(c) One member from amongst the officials of the Reserve Bank of India;

(d) Five other members of whom at least three should be whole time members to be appointed by the Central Government.

The general superintendence, direction and management of the affairs of SEBI vests with the Board of Members, which exercises all powers and does all acts and things which may be exercised or done by SEBI.

The Chairman also has powers of general superintendence and direction of the affairs of the Board and may also exercise all powers and do all acts and things which may be exercised or done by the Board.

Functions of SEBI

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

(a) regulating the business in stock exchanges and any other securities markets;

(b) registering and regulating the working of various market intermediaries such as 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 specified by SEBI.

(d) registering and regulating the working of venture capital funds and collective investment schemes including mutual funds;

(e) promoting and regulating self-regulatory organisations;

(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, other persons associated with the securities market, intermediaries and self- regulatory organisations in the securities market;

(k) calling for information and record from any bank or any other authority or board or corporation established or constituted by or under any Central, State or Provincial Act in respect of any transaction in securities which is under investigation or inquiry by SEBI;

(l) performing such functions and exercising such powers under SCRA as may be delegated to it by the Central Government;

(m) levying fees or other charges for carrying out the purpose of this section;

(n) conducting research for the above purposes;

(o) 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;

(p) performing such other functions as may be prescribed.

The SEBI Act was amended un 1999 to provide for constitution of the Securities Appellate Tribunal (SAT) to exercise the jurisdiction, powers and authority conferred on the Tribunal by or under this Act or any other law. Any person aggrieved by an order of the SEBI Board under the SEBI Act or SCRA or the Depositories Act, can appeal to the SAT having jurisdiction in the matter

Establishment of Securities Appellate Tribunals

(1) The Central Government by notification, establish one or more Appellate Tribunals to be known as the Securities Appellate Tribunal to exercise the jurisdiction, powers and authority conferred on such Tribunal by or under this Act or any other law for the time being in force.

(2) The Central Government also specifies in the notification referred to in sub-section (1) the matters and places in relation to which the Securities Appellate Tribunal may exercise jurisdiction.

Procedure and powers of the Securities Appellate Tribunal

(1) The Securities Appellate Tribunal is not bound by the procedure laid down by the Code of Civil Procedure, 1908, but shall be guided by the principles of natural justice and, subject to the other provisions of this Act and of any rules, the Securities Appellate Tribunal have powers to regulate their own procedure including the places at which they have their sittings.

(2) The Securities Appellate Tribunal has, for the purposes of discharging their functions under this Act, the same powers as are vested in a civil court under the Code of Civil Procedure, 1908, while trying a suit, in respect of the following matters, namely:

   (a) summoning and enforcing the attendance of any person and examining him on oath;

   (b) requiring the discovery and production of documents;

   (c) receiving evidence on affidavits;

   (d) issuing commissions for the examination of witnesses or documents;

   (e) reviewing its decision;

   (f) dismissing an application for default or deciding it ex-parte;

(g) setting aside any order of dismissal of any application for default or any order passed by it ex-parte;

(h) any other matter which may be prescribed.

(3) Every proceeding before the Securities Appellate Tribunal should be deemed to be a judicial proceeding within the meaning of sections 193 and 228, and for the purposes of section 196, of the Indian Penal Code and the Securities Appellate Tribunal should be deemed to be a civil court for all the purposes of section 195 and Chapter XXVI of the Code of Criminal Procedure, 1973.

4.4 SEBI (STOCK BROKERS & SUB-BROKERS) REGULATIONS, 1992

In terms of regulation 2 (g), 'small investor' means any 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-brokers.

Registration of Stock Broker

A stock broker applies in the prescribed format for grant of a certificate through the stock exchange or stock exchanges, as the case may be, of which he is admitted as a member. The stock exchange forwards the application form to SEBI as early as possible but not later than thirty days from the date of its receipt.

SEBI takes into account for considering the grant of a certificate all matters relating to buying, selling, or dealing in securities and in particular the following, namely, whether the stock broker:

(a) is eligible to be admitted as a member of a stock exchange,

(b) has the necessary infrastructure like adequate office space, equipment and manpower to effectively discharge his activities,

(c) has any past experience in the business of buying, selling or dealing in securities,

(d) is subjected to disciplinary proceedings under the rules, regulations and bye-laws of a stock exchange with respect to his business as a stock-broker involving either himself or any of his partners, directors or employees, and

(e) is a fit and proper person.

SEBI on being satisfied that the stock-broker is eligible, grants a certificate to the stock-broker and sends intimation to that effect to the stock exchange or stock exchanges, as the case may be. Where an application for grant of a certificate does not fulfill the requirements, SEBI may reject the application after giving a reasonable opportunity of being heard.

Fees by stock brokers

Every applicant eligible for grant of a certificate should pay fees and in such manner as specified in Schedule III or Schedule III A[2] as the case may be; provided that SEBI may on sufficient cause being shown, permit the stock-broker to pay such fees at any time before the expiry of six months from the date on which such fees become due. Where a stock-broker fails to pay the fees, SEBI suspends the registration certificate, whereupon the stock- broker ceases to buy, sell or deal in securities as a stock- broker.

Appointment of Compliance Officer

Every stock broker should appoint a Compliance Officer who will 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 should immediately and independently report to SEBI any non-compliance observed by him.

Code of conduct

The stock-broker holding a certificate at all times abides by the Code of Conduct as given hereunder:

I. General

a) *Integrity*: A stock-broker, should maintain high standards of integrity, promptitude and fairness in the conduct of all his business.

b) *Exercise of Due Skill and Care*: A stock-broker, should act with due skill, care and diligence in the conduct of all his business.

c) *Manipulation*: A stock-broker should not indulge in manipulative, fraudulent or deceptive transactions or schemes or spread rumours with a view to distorting market equilibrium or making personal gains.

d) *Malpractices*: A stock-broker should 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 should not involve himself in excessive speculative business in the market beyond reasonable levels not commensurate with his financial soundness.

e) *Compliance with Statutory Requirements*: A stock-broker should abide by all the provisions of the Act and the rules, regulations issued by the Government, SEBI and the stock exchange from time to time as may be applicable to him.

2 SEBI (Stock Brokers and Sub-brokers) Regulations 1992.

II. *Duty to the investor*

a) *Execution of Orders*: A stock-broker, in his dealings with the clients and the general investing public, should faithfully execute the orders for buying and selling of securities at the best available market price and not refuse to deal with a small investor merely on the ground of the volume of business involved. A stock-broker should 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.

b) *Issue of Contract Note*: A stock-broker should issue without delay to his client or client of sub-broker a contract note for all transactions in the form specified by the stock exchange.

c) *Breach of Trust*: A stock-broker should 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.

d) *Business and Commission*:

(i) A stock-broker should not encourage sales or purchases of securities with the sole object of generating brokerage or commission.

(ii) A stock-broker should 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.

e) *Business of Defaulting Clients*: A stock-broker should 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.

(f) *Fairness to Clients*: A stock-broker, when dealing with a client, should disclose whether he is acting as a principal or as an agent and should ensure at the same time that no conflict of interest arises between him and the client. In the event of a conflict of interest, he should inform the client accordingly and should not seek to gain a direct or indirect personal advantage from the situation and should not consider clients' interest inferior to his own.

g) *Investment Advice*: A stock-broker should 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.

h) *Investment Advice in publicly accessible media*:

(i) A stock broker or any of his employees should not render, directly or indirectly, any investment advice about any security in the publicly accessible media, whether real-time or non real-time, unless a disclosure of his interest including the interest of his dependent family members and the employer including their long or short position in the said security has been made, while rendering such advice.

(ii) In case, an employee of the stock broker is rendering such advice, he should also disclose the interest of his dependent family members and the employer including their long or short position in the said security, while rendering such advice.

(i) *Competence of Stock Broker*: A stock-broker should have adequately trained staff and arrangements to render fair, prompt and competent services to his clients.

III. Stock-brokers vis-a-vis other stock-brokers

(a) *Conduct of Dealings:* A stock-broker should co-operate with the other contracting party in comparing unmatched transactions. A stock-broker should not knowingly and willfully deliver documents which constitute bad delivery and should co-operate with other contracting party for prompt replacement of documents which are declared as bad delivery.

(b) *Protection of Clients Interests:* A stock-broker should extend fullest co-operation to other stock-brokers in protecting the interests of his clients regarding their rights to dividends, bonus shares, right shares and any other rights related to such securities.

(c) *Transactions with Stock-Brokers:* A stock-broker should carry out his transactions with other stock-brokers and should comply with his obligations in completing the settlement of transactions with them.

(d) *Advertisement and Publicity:* A stock-broker should not advertise his business publicly unless permitted by the stock exchange.

(e) *Inducement of Clients:* A stock-broker should not resort to unfair means of inducing clients from other stock- brokers.

(f) *False or Misleading Returns:* A stock-broker should not neglect or fail or refuse to submit the required returns and not make any false or misleading statement on any returns required to be submitted to the Board and the stock exchange.

Registration of Sub-Broker

An application by a sub-broker for the grant of a certificate is made in the prescribed format accompanied by a recommendation letter from a stock-broker of a recognised stock exchange with whom he is to be affiliated along with two references including one from his banker. The application form is submitted to the stock exchange of which the stock- broker with whom he is to be affiliated is a member.

The eligibility criteria for registration as a sub-broker are as follows:

(i) in the case of an individual:

- (a) the applicant is not less than 21 years of age,
- (b) the applicant has not been convicted of any offence involving fraud or dishonesty,
- (c) the applicant has atleast passed 12th standard equivalent examination from an institution recognised by the Government, Provided that SEBI may relax the educational qualifications on merits having regard to the applicant's experience.
- (d) the applicant is a fit and proper person.

(ii) In the case of partnership firm or a body corporate the partners or directors, as the case may be, should comply with the following requirements:

- (a) the applicant is not less than 21 years of age,
- (b) the applicant has not been convicted of any offence involving fraud or dishonesty, and
- (c) the applicant has atleast passed 12th standard equivalent examination from an institution recognised by the Government. Provided that SEBI may relax the educational qualifications on merits having regard to the applicant's experience.

The stock exchange on receipt of an application, verifies the information contained therein and certifies that the applicant is eligible for registration. The stock exchange forwards the application form of such applicants who comply with all the requirements specified in the Regulations to SEBI as early as possible, but not later than thirty days from the date of its receipt.

SEBI on being satisfied that the sub-broker is eligible, grants a certificate to the sub-broker and sends intimation to that effect to the stock exchange or stock exchanges as the case may be. SEBI grants a certificate of registration to the appellant subject to the terms and conditions as stated in Rule 5 of SEBI (Stock Brokers and Sub-brokers) Rules, 1992.

Where an application does not fulfill the requirements, SEBI may reject the application after giving a reasonable opportunity of being heard.

The sub-broker shall:

(a) pay the fees as specified in Schedule III;

(b) abide by the code of conduct specified in Schedule II; and

(c) enter into an agreement with the stock-broker for specifying the scope of his authority and responsibilities.

(d) comply with the rules, regulations and bye-laws of the stock exchange

(e) not be affiliated to more than one stock broker of one stock exchange

Code of conduct

The sub-broker at all times abides by the Code of Conduct as given hereunder:

I. General

(a) Integrity: A sub-broker, should maintain high standards of integrity, promptitude and fairness in the conduct of all investment business.

(b) Exercise of Due Skill and Care: A sub-broker, should act with due skill, care and diligence in the conduct of all investment business.

II. Duty to the Investor

1. *(a) Execution of Orders:* A sub-broker, in his dealings with the clients and the general investing public, should faithfully execute the orders for buying and selling of securities at the best available market price. A sub-broker should promptly inform his client about the execution or non-execution of an order.

(b) A sub-broker should render necessary assistance to his client in obtaining the contract note from the stock broker

2. *Issue of Purchase or Sale Notes:*

(a) A sub-broker should issue promptly to his clients purchase or sale notes for all the transactions entered into by him with his clients.

(b) A sub-broker should issue promptly to his clients scrip-wise split purchase or sale notes and similarly bills and receipts showing the brokerage separately in respect of all transactions in the specified form.

(c) A sub-broker should only split the contract notes client-wise and scrip-wise originally issued to him by the affiliated broker into different denominations.

(d) A sub-broker should not match the purchase and sale orders of his clients and each such order must invariably be routed through a member-broker of the stock exchange with whom he is affiliated.

3. *Breach of Trust:* A sub-broker should 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.

4. *Business and Commission:*

   (a) A sub-broker should not encourage sales or purchases of securities with the sole object of generating brokerage or commission.

   (b) A sub-broker should 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.

   (c) A sub-broker should not charge from his clients a commission exceeding one and one-half percent of the value mentioned in the respective sale or purchase notes.

5. *Business of Defaulting Clients:* A sub-broker should 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.

6. *Fairness to Clients:* A sub-broker, when dealing with a client, should disclose that he is acting as an agent 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 should inform the client accordingly and should not seek to gain a direct or indirect personal advantage from the situation and should not consider clients' interest inferior to his own.

7. *Investment Advice:* A sub-broker should 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.

8. *Investment Advice in publicly accessible media:*

   (a) A sub-broker or any of his employees should not render, directly and indirectly any investment advice about any security in the publicly accessible media, whether real-time or non-real-time, unless a disclosure of his interest including his long or short position in the said security has been made, while rendering such advice.

(b) In case, an employee of the sub-broker is rendering such advice, he should also disclose the interest of his dependent family members and the employer including their long or short position in the said security, while rendering such advice.

9. *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.

III. Sub-Brokers vis-à-vis Stock Brokers

(a) *Conduct of Dealings:* A sub-broker should co-operate with his broker in comparing unmatched transactions. A sub-broker should not knowingly and willfully deliver documents, which constitute bad delivery. A sub-broker should co-operate with other contracting party for prompt replacement of documents, which are declared as bad delivery.

(b) *Protection of Clients Interests:* A sub-broker should extend fullest co-operation to his stock-broker in protecting the interests of their clients regarding their rights to dividends, right or bonus shares or any other rights relatable to such securities.

(c) *Transactions with Brokers:* A sub-broker should not fail to carry out his stock broking transactions with his broker nor should he fail to meet his business liabilities or show negligence in completing the settlement of transactions with them.

(d) Agreement between sub-broker, client of the sub-broker and main broker: A sub-broker should enter into a tripartite agreement with his client and with the main stock broker specifying the scope of rights and obligations of the stock broker, sub-broker and such client of the sub-broker

(e) *Advertisement and Publicity:* A sub-broker should not advertise his business publicly unless permitted by the stock exchange.

(f) *Inducement of Clients:* A sub-broker should not resort to unfair means of inducing clients from other stock brokers.

IV. Sub-brokers vis-a-vis Regulatory Authorities

(a) *General Conduct:* A sub-broker should not indulge in dishonourable, disgraceful or disorderly or improper conduct on the stock exchange nor shall he willfully obstruct the business of the stock exchange. He should comply with the rules, bye-laws and regulations of the stock exchange.

(b) *Failure to give Information:* A sub-broker should not neglect or fail or refuse to submit to SEBI 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.

(c) *False or Misleading Returns:* A sub-broker should not neglect or fail or refuse to submit the required returns and not make any false or misleading statement on any returns required to be submitted to SEBI or the stock exchanges.

(d) *Manipulation:* A sub-broker should not indulge in manipulative, fraudulent or deceptive transactions or schemes or spread rumours with a view to distorting market equilibrium or making personal gains.

(e) *Malpractices:* A sub-broker should 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 should not involve himself in excessive speculative business in the market beyond reasonable levels not commensurate with his financial soundness.

SEBI (Intermediaries) REGULATIONS, 2008

One of the main functions of SEBI is to register and regulate the functioning of various types of intermediaries and persons associated with securities market in a manner as to ensure smooth functioning of the markets and protection of interests of the investors. These intermediaries, as detailed in the SEBI Act are: stock-brokers, sub- broker, share transfer agents, bankers to an issue, trustees of trust deed, registrars to an issue, merchant bankers, underwriters, portfolio managers, investment advisers, depositories, participants, custodians of securities, foreign institutional investors, credit rating agencies, asset management companies, clearing members of a clearing corporation or clearing house, trading member of a derivative segment of a stock exchange, collective investment schemes, venture capital funds, mutual funds, and any other intermediary associated with the securities market

SEBI had issued regulations governing the registration and regulatory framework for each of these intermediaries. However, given the fact that many requirements and obligations of most intermediaries are common, SEBI has recently consolidated these requirements and issued the SEBI (Intermediaries) Reguations, 2008. These regulations were notified on May 26, 2009.

These regulations apply to all the intermediaries mentioned above, except foreign institutional investors, foreign venture capital investors, mutual funds, collective investment schemes and venture capital funds.

The salient features of the Regulations are as under : –

(a) The Regulations put in place a comprehensive regulation which will apply to all intermediaries. The common requirements such as grant of registration, general obligations, common code of conduct, common procedure for action in case of default and miscellaneous provisions have been provided in the approved Intermediaries Regulations.

(b) The registration process has been simplified. An applicant may file application in the prescribed format along with additional information as required under the relevant regulations along with the requisite fees. The existing intermediaries may, within the prescribed time, file the disclosure in the specified Form. The disclosures shall be made public by uploading the information on the website specified by SEBI. The information of commercial confidence and private information furnished to SEBI shall be treated confidential. In the event intermediary wishes to operate in a capacity as an intermediary in a new category, such person may only file the additional shortened forms disclosing the specific requirements of the new category as per the relevant regulations.

(c) The Fit and Proper criteria have been modified to make it principle based. The common code of conduct has been specified at one place.

(d) The registration granted to intermediaries has been made permanent unless surrendered by the intermediary or suspended or cancelled in accordance with these regulations

(e) Procedure for action in case of default and manner of suspension or cancellation of certificate has been simplified to shorten the time usually faced by the parties without compromising with the right of reasonable opportunity to be heard. Surrender of certificate has been enabled without going through lengthy procedures.

(f) While common requirements will be governed by the new Regulations, the intermediaries specific requirements will continue to be as per the relevant regulations applicable to individual intermediaries. The relevant regulations will be amended to provide for the specific requirements.

4.5 SEBI Issue of Capital and Disclosure Requirements (ICDR) Regulations 2009[3]

The SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009 are applicable for public issue; rights issue[4], preferential issue; an issue of bonus shares by a listed issuer; qualified institutional placement by a listed issuer and issue of Indian Depository Receipts.[5]

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3 Only some provisions pertaining to ICDR Regulations 2009 are discussed here. For greater details, it is recommended that original regulation may be referred to. The regulations are updated as of December 31, 2010.

4 where the aggregate value of specified securities offered is Rs.50 lakh or more;

5 The ICDR Regulations 2009 have been made primarily by conversion of the SEBI (Disclosure and Investor Protection) Guidelines, 2000 (rescinded). ICDR were notified on August 26, 2009.While incorporating the provisions of the rescinded Guidelines into the ICDR Regulations, certain changes have been made by removing the redundant provisions, modifying certain provisions on account of changes necessitated due to market design and bringing more clarity to the provisions of the rescinded Guidelines. (sourced from SEBI circular (SEBI/CFD/DIL/ICDRR/1/2009/03/09) dated September 3, 2009)

General conditions for public issues and rights issues

An issuer cannot make a public issue or rights issue of equity shares and convertible securities[6] under the following conditions:

a. If the issuer, any of its promoters, promoter group or directors or persons in control of the issuer are debarred from accessing the capital market by SEBI or

b. If any of the promoters, director or person in control of the issuer was or also is a promoter, director or person in control of any other company which is debarred from accessing the capital market under the order or directions made by SEBI.

c. If the issuer of convertible debt instruments[7] is in the list of willful defaulters published by the RBI or it is in default of payment of interest or repayment of principal amount in respect of debt instruments issued by it to the public, if any, for a period of more than 6 months.

d. Unless an application is made to one or more recognised stock exchanges for listing of equity shares and convertible securities on such stock exchanges and has chosen one of them as a designated stock exchange. However, in case of an initial public offer, the issuer should make an application for listing of the equity shares and convertible securities in at least one recognised stock exchange having nationwide trading terminals.

e. Unless it has entered into an agreement with a depository for dematerialisation of equity shares and convertible securities already issued or proposed to be issued.

f. Unless all existing partly paid-up equity shares of the issuer have either been fully paid up or forfeited.

g. Unless firm arrangements of finance through verifiable means towards 75% of the stated means of finance, excluding the amount to be raised through the proposed public issue or rights issue or through existing identifiable internal accruals, have been made.

Appointment of Merchant banker and other intermediaries

The issuer should appoint one or more merchant bankers, at least one of whom should be a lead merchant banker. The issuer should also appoint other intermediaries, in consultation with the lead merchant banker, to carry out the obligations relating to the issue. The issuer

6 Convertible security means a security which is convertible into or exchangeable with equity shares at a later date with or without the option of the holder of the security and includes convertible debt instrument and convertible preference shares.

7 means an instrument which creates or acknowledges indebtedness and is convertible into equity shares of the issuer at a later date at or without the option of the holder of the instrument, whether constituting a charge on the assets of the issuer or not

should in consultation with the lead merchant banker, appoint only those intermediaries which are registered with SEBI. Where the issue is managed by more than one merchant banker, the rights, obligations and responsibilities, relating *inter alia* to disclosures, allotment, refund and underwriting obligations, if any, of each merchant banker should be predetermined and disclosed in the offer document.

Conditions for Initial Public Offer

1) An issuer may make an initial public offer (an offer of equity shares and convertible debentures by an unlisted issuer to the public for subscription and includes an offer for sale of specified securities to the public by an existing holder of such securities in an unlisted issuer) if:

    a. The issuer has net tangible assets of at least Rs.3 crores in each of the preceding 3 years (of 12 months each) of which not more than 50% are held in monetary assets. If more than 50% of the net tangible assets are held in monetary assets, then the issuer has to make firm commitment to utilize such excess monetary assets in its business or project.

    b. The issuer has a track of distributable profits[8] in at least 3 out of the immediately preceding 5 years[9].

    c. The issuer company has a net worth of at least Rs. 1 crore in each of the preceding 3 full years (of 12 months each).

    d. The aggregate of the proposed issue and all previous issues made in the same financial year in terms of issue size does not exceed 5 times its pre-issue net worth as per the audited balance sheet of the preceding financial year.

    e. In case of change of name by the issuer company within last one year, at least 50% of the revenue for the preceding one year should have been earned by the company from the activity indicated by the new name.

2) Any issuer not satisfying any of the conditions stipulated above may make an initial public offer if:

    a. The issue is made through the book building process and the issuer undertakes to allot at least 50% of the net offer to public to qualified institutional buyers and to refund full subscription monies if it fails to make allotment to the qualified institutional buyers **OR** At least 15% of the cost of project is contributed by scheduled commercial banks or public financial institutions, of which not less than 10% would come from the appraisers and the issuer undertakes to allot

8 Distributable profits have to be in terms of section 205 of the Companies Act 1956.

9 Provided that extraordinary items shall not be considered for calculating distributable profits

at least 10% of the net offer to public to qualified institutional buyers and to refund full subscription monies if it fails to make the allotment to the qualified institutional buyers.

b. The minimum post-issue face value capital of the issuer should be Rs.10 crore; **OR** the issuer undertakes to provide compulsory market making for at least 2 years from the date of listing of the equity shares and convertible securities subject to the conditions that a) the Market makers undertake to offer buy and sell quotes for a minimum depth of 300 equity shares and convertible securities and ensure that the bid-ask spread for their quotes should not at any time exceed 10 % b) the inventory of the market makers, as on the date of allotment of the equity shares and convertible securities should be at least 5% of the proposed issue.

3) An issuer may make an initial public offer of convertible debt instruments without making a prior public issue of its equity shares and listing.

4) An issuer cannot make an allotment pursuant to a public issue if the number of prospective allottees is less than one thousand.

5) No issuer can make an initial public offer if there are any outstanding convertible securities or any other right which would entitle any person any option to receive equity shares after the initial public offer. However, this is not applicable to:

- a public issue made during the currency of convertible debt instruments which were issued through an earlier initial public offer, if the conversion price of such convertible debt instruments was determined and disclosed in the prospectus of the earlier issue of convertible debt instruments;
- outstanding options granted to employees pursuant to an employee stock option scheme framed in accordance with the relevant Guidance Note or Accounting Standards, if any, issued by the Institute of Chartered Accountants of India in this regard.
- Fully paid-up outstanding securities which are required to be converted on or before the date of filing of the red herring prospectus (in case of book built issues) or the prospectus (in case of fixed price issues), as the case may be.

Conditions for further public offer

An issuer may make a further public offer (an offer of equity shares and convertible securities) if it satisfies the following conditions:

(a) the aggregate of the proposed issue and all previous issues made in the same financial year in terms of issue size does not exceed 5 times its pre-issue net worth as per the audited balance sheet of the preceding financial year;

(b) if it has changed its name within the last one year, at least 50% of the revenue for the preceding one full year has been earned by it from the activity indicated by the new name.

If the issuer does not satisfy the above conditions, it may make a further public offer if it satisfies the following conditions:

(i) the issue is made through the book building process and the issuer undertakes to allot at least 50% of the net offer to public to qualified institutional buyers and to refund full subscription monies if it fails to make allotment to the qualified institutional buyers ;or at least 15% of the cost of the project is contributed by scheduled commercial banks or public financial institutions, of which not less than 10% should come from the appraisers and the issuer undertakes to allot at least 10% of the net offer to public to qualified institutional buyers and to refund full subscription monies if it fails to make the allotment to the qualified institutional buyers;

(ii) the minimum post-issue face value capital of the issuer is Rs.10 crore; or the issuer undertakes to provide market-making for at least 2 years from the date of listing of the specified securities, subject to the two conditions that a) the market makers offer buy and sell quotes for a minimum depth of three hundred specified securities and ensure that the bid-ask spread for their quotes does not, at any time, exceed 10%; b) the inventory of the market makers, as on the date of allotment of the specified securities, should be at least 5% of the proposed issue.

Pricing in Public Issues

The issuer determines the price of the equity shares and convertible securities[10] in consultation with the lead merchant banker or through the book building process. In case of debt instruments, the issuer determines the coupon rate and conversion price of the convertible debt instruments in consultation with the lead merchant banker or through the book building process.

Differential Pricing

An issuer may offer equity shares and convertible securities at different prices; subject to the following condition;

(a) the retail individual investors/shareholders or employees entitled for reservation[11] making an application for equity shares and convertible securities of value not more than Rs.2 lakh, may be offered equity shares and convertible securities at a price

10 convertible security" means a security which is convertible into or exchangeable with equity shares of the issuer at a later date, with or without the option of the holder of the security and includes convertible debt instrument and convertible preference shares.

11 Made under regulation 42 pertaining to Reservation on competitive basis.

lower than the price at which net offer is made to other categories of applicants provided that such difference is not more than 10% of the price at which equity shares and convertible securities are offered to other categories of applicants;

(b) in case of a book built issue, the price of the equity shares and convertible securities offered to an anchor investor[12] cannot be lower than the price offered to other applicants;

(c) in case of a composite issue[13], the price of the equity shares and convertible securities offered in the public issue may be different from the price offered in rights issue and justification for such price difference should be given in the offer document.

(d) in case the issuer opts for the alternate method of book building, the issuer may offer specified securities to its employees at a price lower than the floor price. However, the difference between the floor price and the price at which equity shares and convertible securities are offered to employees should not be more than 10% of the floor price.

Promoters' Contribution

The promoters' minimum contribution varies from case to case. The promoters of the issuer are required to contribute in the public issue as follows:

- In case of an **initial public offer**, the minimum contribution should not be less than 20% of the post issue capital;
- In case of **further public offer**, it should be either to the extent of 20 % of the proposed issue size or to the extent of 20% of the post-issue capital;
- In case of a **composite issue**, either to the extent of 20% of the proposed issue size or to the extent of 20% of the post-issue capital excluding the rights issue component.

Lock-in of specified securities held by promoters.

In a public issue, the equity shares and convertible debentures held by promoters are locked-in for the period stipulated below:

(a) minimum promoters' contribution is locked-in for a period of 3 years from the date of commencement[14] of commercial production or date of allotment in the public issue, whichever is later;

12 Anchor investor" means a qualified institutional buyer who makes an application for a value of Rs.10 crores or more in a public issue through the book building process in accordance with the ICDR regulations 2009.

13 "Composite issue" means an issue of equity shares and convertible securities by a listed issuer on public cum-rights basis, wherein the allotment in both public issue and rights issue is proposed to be made simultaneously.

14 "date of commencement of commercial production" means the last date of the month in which commercial production in a manufacturing company is expected to commence as stated in the offer document.

(b) promoters' holding in excess of minimum promoters' contribution is locked-in for a period of 1 year:

However, excess promoters' contribution in a further public offer[15] are not subject to lock in.

Book Building

Book Building means a process undertaken to elicit demand and to assess the price for determination of the quantum or value of specified securities or Indian Depository Receipts, as the case may be in accordance with the SEBI ICDR Regulations 2009.

In an issue made through the book building process, the allocation in the net offer to public category is made as follows

i) Not less than 35 % to retail individual investors.

ii) Not less than 15 % to non institutional investors i.e. investors other than retail individual investors and qualified institutional buyers.

iii) Not more than 50% to Qualified Institutional Buyers; 5 % of which would be allocated to mutual funds[16].

However, if the issue is made through the book building process and the issuer undertakes to allot at least 50% of the net offer to public to qualified institutional buyers and to refund full subscription monies if it fails to make allotment to the qualified institutional buyers **then** in that case at least 50% of the net offer to public should be allotted to qualified institutional buyers.

In an issue made through the book building process, the issuer may allocate upto 30% of the portion available for allocation to qualified institutional buyers to an anchor investor in accordance with the conditions laid down in ICDR Regulations 2009[17].

In an issue made other than through the book building process, allocation in the net offer to public category will be made as follows:

(a) minimum 50% to retail individual investors; and

(b) remaining to individual applicants other than retail individual investors and) other investors including corporate bodies or institutions, irrespective of the number of equity shares and convertible securities applied for;

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15 where the equity shares of the same class which are proposed to be allotted pursuant to conversion or exchange of convertible securities offered through the offer or are proposed to be allotted in the offer have been listed and are not infrequently traded in a recognised stock exchange for a period of at least three years and the issuer has a track record of dividend payment for at least immediately preceding three years.Provided that where promoters propose to subscribe to the specified securities offered to the extent greater than higher of the two options available in clause (b) of sub-regulation (1) of regulation 32, the subscription in excess of such percentage shall be made at a price determined in terms of the provisions of regulation 76 or the issue price, whichever is higher. shall not be subject to lock-in.

16 In addition to the 5% allocation, mutual funds are eligible for allocation under the balance available for qualified institutional buyers.

17 Conditions laid down in the Schedule XI of ICDR regulations.

(c) the unsubscribed portion in either of the categories specified above (point a and b) may be allocated to applicants in the other category.

If the retail individual investor category is entitled to more than 50% on proportionate basis, the retail individual investors will be allocated that higher percentage.

Indian Depository Receipts

A foreign company can access Indian securities market for raising funds through issue of Indian Depository Receipts (IDRs).

An IDR is an instrument denominated in Indian Rupees in the form of a depository receipt created by a Domestic Depository (custodian of securities registered with the

Securities and Exchange Board of India) against the underlying equity of issuing company to enable foreign companies to raise funds from the Indian securities markets.[18]

An issuing company making an issue of IDR is required to satisfy the following:

(a) it should be listed in its home country[19].

(b) it should not be prohibited to issue securities by any regulatory body.

(c) it should have a track record of compliance with securities market regulations in its home country.

Conditions for issue of IDR.

An issue of IDR is subject to the following conditions:

(a) issue size should not be less than Rs.50 crore.

(b) procedure to be followed by each class of applicant for applying should be mentioned in the prospectus;

(c) minimum application amount should be Rs.20,000;

(d) at least 50 %. of the IDR issued should be allotted to qualified institutional buyers on proportionate basis.

(e) the balance 50 % may be allocated among the categories of non-institutional investors and retail individual investors including employees[20] at the discretion of the issuer and the manner of allocation has to be disclosed in the prospectus. Allotment to investors within a category will be on proportionate basis.

18 Sourced from SEBI FAQ on Primary issuance

19 Home country means the country where the issuing company is incorporated and listed.

20 "employee" means a resident of India, and is a permanent and full-time employee or a director, whether whole time or part time, of the issuer or of the holding company or subsidiary company or of the material associate(s) of the issuer, whose financial statements are consolidated with the issuer's financial statements, working in India and does not include promoters and an immediate relative of the promoter (i.e., any spouse of that person, or any parent, brother, sister or child of the person or of the spouse

Further, atleast 30% of the IDRs issued will be allocated to retail individual investors and in case of under-subscription in retail individual investor category, spill over to other categories to the extent of under-subscription may be permitted.

(f) At any given time, there will be only one denomination of IDR of the issuing company.

4.6 SEBI (PROHIBITION OF INSIDER TRADING) REGULATIONS, 1992

The malpractice of 'insider trading' affects the innocent investors. In simple terms 'insider trading' means selling or buying in securities on the basis of price sensitive unpublished information of a listed corporate which if published could lead to a fall or rise in the prices of shares of the corporate.

To tackle the problem of insider trading, SEBI issued the SEBI (Insider Trading) Regulations 1992. These regulations were further made stringent through amendments in February 2002 and they were notified as the SEBI (Insider Trading) (Amendment) Regulations 2002

The important definitions used in the regulations are:

(a) **'Dealing in securities'** means an act of subscribing, buying, selling or agreeing to subscribe, buy, sell or deal in any securities by any person either as principal or agent.

(b) **'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 to unpublished price sensitive information in respect of securities of a company, or who has received or has had access to such unpublished price sensitive information.

(c) A **connected person** means any person who:

(a) is a director, as defined in clause (13) of section 2 of the Companies Act, 1956 of a company, or is deemed to be a director of that company by virtue of sub-clause (10) of section 307 of that Act, or

(b) 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 whether temporary or permanent and who may reasonably be expected to have an access to unpublished price sensitive information in relation to that company.

(iv) A person is **deemed to be a connected person** if such person:

(i) is a company under the same management or group or any subsidiary company thereof within the meaning of section (1B) of section 370, or sub-section (11) of section 372, of the Companies Act, 1956 or sub-clause (g) of section 2 of the Monopolies and Restrictive Trade Practices Act, 1969 as the case may be; or

(ii) is an intermediary as specified in section 12 of SEBI Act, 1992, Investment company, Trustee Company, Asset Management Company or an employee or director thereof or an official of a stock exchange or of clearing house or corporation;

(c) is a merchant banker, share transfer agent, registrar to an issue, debenture trustee, broker, portfolio manager, investment advisor, sub-broker, investment company or an employee thereof, or, is 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;

(d) is a member of the board of directors, or an employee, of a public financial institution as defined in Section 4A of the Companies Act, 1956;

(e) is an official or an employee of a self regulatory organisation recognised or authorised by the Board of a regulatory body;

(f) is a relative of any of the aforementioned persons;

(g) is a banker of the company.

(h) relative of the connected person.

(v) Price sensitive information means any information which is related directly or indirectly to a company and which if published is likely to materially affect the price of securities of a company. It includes only such information which if published is likely to materially affect the price of securities of a company. The following is deemed to be price sensitive information:

(i) periodical financial results of the company;

(ii) intended declaration of dividends (both interim and final);

(iii) issue of securities or buy-back of securities;

(iv) any major expansion plans or execution of new projects;

(v) amalgamation, mergers or takeovers;

(vi) disposal of the whole or substantial part of the undertaking;

(vii) significant changes in policies, plans or operations of the company.

Prohibition on dealing, communicating or counseling (Chapter II)

Under this regulation, no insider should–

- either on his own behalf or on behalf of any other person, deal in securities of a company listed on any stock exchange when in possession of any unpublished price sensitive information;
- communicate, counsel or procure, directly or indirectly, any unpublished price sensitive information to any person who while in possession of such unpublished price sensitive information should not deal in securities; Provided that nothing contained above should be applicable to any communication required in the ordinary course of business or profession or employment or under any law.

Further, the regulations require that no company should deal in the securities of another company or associate of that other company while in possession of any unpublished price sensitive information.

Investigation (Chapter III)

If SEBI suspects any person of having violated the provisions of insider regulation, it may make inquiries with such person or with the stock exchanges, mutual funds, other persons associated with the securities market, intermediaries and self-regulatory organisation in the securities market to form a prima facie opinion as to whether there is any violation of insider regulations.

Where SEBI forms a prima facie opinion that it is necessary to investigate and inspect the books of accounts, either documents and records of an insider or the stock exchanges, mutual funds, other persons associated with the securities market, intermediaries and self-regulatory organisation in the securities market, it may appoint an investigating authority for the purpose.

The investigating authority shall, after completion of investigations in accordance with the provisions of the regulations, shall submit its report to the SEBI Board. .

After considering the report, SEBI is required to communicate its findings to the suspected person and seek a reply from such person. Such suspected person is required to reply to the findings within 21 days to SEBI. After receipt of the reply, SEBI may take such measures to safeguard and protect the interest of investors, securities market and for due compliance with the insider trading regulations.

SEBI also has powers to appoint an auditor to investigate into the books of accounts or the affairs of the insider or the stock exchanges, mutual funds, other persons associated with the securities market, intermediaries and self-regulatory organisation in the securities market.

Disclosures and internal procedure for prevention of insider trading (Chapter IV)

All listed companies and organisations associated with securities markets including:

(a) the intermediaries as mentioned in section 12 of the Act, asset management company and trustees of mutual funds;

(b) the self regulatory organisations recognised or authorised by the Board;

(c) the recognised stock exchanges and clearing house or corporations;

(d) the public financial institutions as defined in Section 4A of the Companies Act, 1956; and

(e) the professional firms such as auditors, accountancy firms, law firms, analysts, consultants, etc., assisting or advising listed companies, are required to frame a code of internal procedures and conduct as near there to the Model Code specified in Schedule I of the SEBI (Prohibition of Insider Trading) Regulations without diluting it any manner and ensure compliance of the same.

Further, the regulations require certain disclosures to be made by directors and officers and substantial shareholders in listed companies. These are:

Initial Disclosure:

(1) Any person who holds more than 5% shares or voting rights in any listed company should disclose to the company in prescribed form, the number of shares or voting rights held by such person, on becoming such holder, within **2 working days** of:-

(a) the receipt of intimation of allotment of shares; or

(b) the acquisition of shares or voting rights, as the case may be.

(2) Any person who is a director or officer of a listed company should disclose to the company in prescribed form, the number of shares or voting rights held by such person, within **2 working days** of becoming a director or officer of the company.

Continual Disclosure

(3) Any person who holds more than 5% shares or voting rights in any listed company should disclose to the company in prescribed form the number of shares or voting rights held and change in shareholding or voting rights, even if such change results in shareholding falling below 5%, if there has been change in such holdings from the last disclosure and such change exceeds 2% of total shareholding or voting rights in the company.

(4) Any person who is a director or officer of a listed company, should disclose to the company in prescribed form, the total number of shares or voting rights held and

change in shareholding or voting rights, if there has been a change in such holdings from the last disclosure made and the change exceeds Rs. 5 lakh in value or 25000 shares or 1% of total shareholding or voting rights, whichever is lower.

(5) The disclosure mentioned above should be made within 2 working days of :

(a) the receipt of intimation of allotment of shares, or

(b) the acquisition or sale of shares or voting rights, as the case may be.

Disclosure by company to stock exchanges

(6) Every listed company, within two working days of receipt, should disclose to all stock exchanges on which the company is listed, the information received under (1) to (4) above.

The disclosures required under this regulation may also be made through electronic filing in accordance with the system devised by the stock exchanges.

Further, the SEBI Act, which inter-alia, prescribes the penalty for insider trading (Section 15G), was amended in 2002 to increase the penalty for insider trading to Rs 25 crore or three times the amount of profits made out of insider trading, whichever is higher.

4.7 SEBI (SUBSTANTIAL ACQUISITION OF SHARES AND TAKEOVERS) REGULATIONS, 2011

Owing to several factors such as the growth of Mergers & Acquisitions activity in India as the preferred mode of restructuring, the increasing sophistication of takeover market, the decade long regulatory experience and various judicial pronouncements, it was felt necessary to review the Takeover Regulations 1997. Accordingly, SEBI formed a Takeover Regulations Advisory Committee (TRAC) in September 2009 under the Chairmanship of (Late) Shri. C. Achuthan, Former Presiding Officer, Securities Appellate Tribunal (SAT) for this purpose. After extensive public consultation on the report submitted by TRAC, SEBI came out with the Substantial Acquisition of Shares and Takeovers Regulations 2011 which were notified on September 23, 2011. The Takeover Regulations, 1997 stand repealed from October 22, 2011, i.e. the date on which Substantial Acquisition of Shares and Takeovers (SAST) Regulations, 2011 come into force.

The Key definitions:

- **'Acquirer'** means any person who, directly or indirectly, acquires or agrees to acquire whether by himself, or through, or with persons acting in concert with him, shares or voting rights in, or control over a target company.

- **'Control'** includes the right to appoint majority of the directors or to control the management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner:

  Provided that a director or officer of a target company shall not be considered to be in control over such target company, merely by virtue of holding such position;

- **'Target Company'** means a company and includes a body corporate or corporation established under a Central legislation, State legislation or Provincial legislation for the time being in force, whose shares are listed on a stock exchange.

- A **'Person acting in concert'** (PAC) means,—

(1) persons who, with a common objective or purpose of acquisition of shares or voting rights in, or exercising control over a target company, pursuant to an agreement or understanding, formal or informal, directly or indirectly co-operate for acquisition of shares or voting rights in, or exercise of control over the target company.

(2) Without prejudice to the generality of the foregoing, the persons falling within the following categories shall be deemed to be persons acting in concert with other persons within the same category, unless the contrary is established,—

(i) a company, its holding company, subsidiary company and any company under the same management or control;

(ii) a company, its directors, and any person entrusted with the management of the company;

(iii) directors of companies referred to in item (i) and (ii) of this sub-clause and associates of such directors;

(iv) promoters and members of the promoter group;

(v) immediate relatives;

(vi) a mutual fund, its sponsor, trustees, trustee company, and asset management company;

(vii) a collective investment scheme and its collective investment management company, trustees and trustee company;

(viii) a venture capital fund and its sponsor, trustees, trustee company and asset management company;

(ix) a foreign institutional investor and its sub-accounts;

(x) a merchant banker and its client, who is an acquirer;

(xi) a portfolio manager and its client, who is an acquirer;

(xii) banks, financial advisors and stock brokers of the acquirer, or of any company which is a holding company or subsidiary of the acquirer, and where the acquirer is an individual, of the immediate relative of such individual:

(xiii) an investment company or fund and any person who has an interest in such investment company or fund as a shareholder or unitholder having not less than 10 per cent of the paid-up capital of the investment company or unit capital of the fund, and any other investment company or fund in which such person or his associate holds not less than 10 per cent of the paid-up capital of that investment company or unit capital of that fund.

- The term **'offer period'** pertains to the period starting from the date of the event triggering open offer till completion of payment of consideration to shareholders by the acquirer or withdrawal of the offer by the acquirer as the case may be.
- The term **'tendering period'** refers to the 10 working days period falling within the offer period, during which the eligible shareholders who wish to accept the open offer can tender their shares in the open offer.

<u>Open Offer</u>

- An open offer under the SAST Regulations, 2011 - is an offer made by the acquirer to the shareholders of the target company inviting them to tender their shares in the target company at a particular price. The primary purpose of an open offer is to provide an exit option to the shareholders of the target company on account of the change in control or substantial acquisition of shares, occurring in the target company.
- If an acquirer has agreed to acquire or acquired control over a target company or shares or voting rights in a target company which would be in excess of the threshold limits, then the acquirer is required to make an open offer to shareholders of the target company.

<u>Acquisition of 25% or more shares or voting rights</u>

An acquirer, who (along with PACs, if any) holds less than 25% shares or voting rights in a target company and agrees to acquire shares or acquires shares which along with his/ PAC's existing shareholding would entitle him to exercise 25% or more shares or voting rights in a target company, will need to make an open offer before acquiring such additional shares.

Acquisition of more than 5% shares or voting rights in a financial year

An acquirer who (along with PACs, if any) holds 25% or more but less than the maximum permissible non-public shareholding in a target company, can acquire additional shares in the target company as would entitle him to exercise more than 5% of the voting rights in any financial year ending March 31, only after making an open offer.

Maximum permissible non-public shareholding is derived based on the minimum public shareholding requirement under the Securities Contracts (Regulations) Rules 1957 ("SCRR"). Rule 19A of SCRR requires all listed companies (other than public sector companies) to maintain public shareholding of at least 25% of share capital of the company. Thus by deduction, the maximum number of shares which can be held by promoters i.e. Maximum permissible non-public shareholding) in a listed companies (other than public sector companies) is 75% of the share capital.

Computation of the creeping acquisitions limit

For computing acquisitions limits for creeping acquisition specified under regulation 3(2), gross acquisitions/ purchases shall be taken in to account thereby ignoring any intermittent fall in shareholding or voting rights whether owing to disposal of shares or dilution of voting rights on account of fresh issue of shares by the target company.

The Takeover Regulations, 2011 have clearly defined the financial year as the period of 12 months commencing on the first day of the month of April. Thus, for the purpose of the creeping acquisitions under Regulation 3(2) of Takeovers Regulations 2011, shares acquired during 1/4/2011 to 22/10/2011 will be taken in to account.

Voluntary open offer

A voluntary open offer under Regulation 6, is an offer made by a person who himself or through Persons acting in concert, if any, holds 25% or more shares or voting rights in the target company but less than the maximum permissible non-public shareholding limit.

A voluntary offer cannot be made if the acquirer or PACs with him has acquired any shares of the target company in the 52 weeks prior to the voluntary offer. The acquirer is prohibited from acquiring any shares during the offer period other than those acquired in the open offer. The acquirer is also not entitled to acquire any shares for a period of 6 months, after completion of open offer except pursuant to another voluntary open offer.

Voluntary offer by a person holding less than 25%	**Voluntary offer by a person holding more than 25%**
Minimum offer size of 26%.	Minimum offer size of 10%.
Maximum can be for entire share capital of the target company	The maximum offer size is linked to maximum permissible non public shareholding permitted under Securities Contracts (Regulations) Rules 1957.

Voluntary offer by a person holding less than 25%	Voluntary offer by a person holding more than 25%
No such conditions	• Acquirer should not have acquired any shares during 52 weeks period prior to Public Announcement. • Acquirer is not entitled to acquire any shares of the target company for a period of 6 months after the completion of the open offer except for a voluntary open offer.

Limit for open offer

Any person holding less than 25% of shares/ voting rights in a target company can make an open offer provided the open offer is for a minimum of 26% of the share capital of the company.

Offer Size

An open offer, other than a voluntary open offer under Regulation 6, must be made for a minimum of 26% of the target company's share capital. The size of voluntary open offer under Regulation 6 must be for at least 10% of the target company's share capital.

Further the offer size percentage is calculated on the fully diluted share capital of the target company taking into account potential increase in the number of outstanding shares as on 10th working day from the closure of the open offer.

Offer Price

Offer price is the price at which the acquirer announces to acquire shares from the public shareholders under the open offer. The offer price shall not be less than the price as calculated under regulation 8 of the SAST Regulations, 2011 for frequently or infrequently traded shares.

Acquirer can make an upward revision to the offer price at any time up to 3 working days prior to the opening of the offer.

The shares of the target company will be deemed to be frequently traded if the traded turnover on any stock exchange during the 12 calendar months preceding the calendar month, in which the PA is made, is at least 10% of the total number of shares of the target company. If the said turnover is less than 10%, it will be deemed to be infrequently traded.

If the target company's shares are frequently traded then the open offer price for acquisition of shares under the minimum open offer shall be highest of the following:

- Highest negotiated price per share under the share purchase agreement ("SPA") triggering the offer;

- Volume weighted average price of shares acquired by the acquirer during 52 weeks preceding the public announcement ("PA");
- Highest price paid for any acquisition by the acquirer during 26 weeks immediately preceding the PA;
- Volume weighted average market price for sixty trading days preceding the PA.

If the target company's shares are infrequently traded then the open offer price for acquisition of shares under the minimum open offer shall be highest of the following:

- Highest negotiated price per share under the share purchase agreement ("SPA") triggering the offer;
- Volume weighted average price of shares acquired by the acquirer during 52 weeks preceding the public announcement ("PA");
- Highest price paid for any acquisition by the acquirer during 26 weeks immediately preceding the PA;
- The price determined by the acquirer and the manager to the open offer after taking into account valuation parameters including book value, comparable trading multiples, and such other parameters that are customary for valuation of shares of such companies.

<u>Special provisions for determining the offer price in case of open offer arising out of indirect acquisition of a target company</u>

Since indirect acquisitions involve acquiring the target company as a part of a larger business, SAST Regulations, 2011 have prescribed additional parameters to be taken into account for determination of the offer price. If the size of the target company exceeds certain thresholds as compared to the size of the entity or business being acquired then the acquirer is required to compute and disclose in the letter of offer, the per share value of the target company taken into account for the acquisition, along with the methodology.

Further, in indirect acquisitions which are not in the nature of deemed direct acquisition, the offer price shall stand enhanced by an amount equal to a sum determined at the rate of 10% per annum for the period between the date on which primary acquisition was contracted and the date of Detailed Public Statement.

<u>Open Offer Process</u>

Under most scenarios (except in certain types of indirect acquisitions) on the day of the triggering event, the acquirer is required to make a Public Announcement to the stock exchanges where shares of Target Company are listed and to SEBI. Within 5 working days thereafter, the acquirer is required to publish a Detailed Public Statement (DPS) in newspapers and also submit a copy to SEBI, after creation of an escrow account.

Within 5 working days of publication DPS, the acquirer through the manager to the offer is required to file a draft letter of offer with SEBI for its observations. The letter of offer is dispatched to the shareholders of the target company, as on the identified date, after duly incorporating the changes indicated by SEBI, if there are any.

The offer shall open not later than 12 working days from the date of receipt of SEBI's observations. The acquirer is required to issue an advertisement announcing the final schedule of the open offer, one working day before opening of the offer. The offer shall remain open for 10 working days from the date of opening of the offer. Within 10 working days after the closure of the offer, the acquirer shall make payments to the shareholders whose shares have been accepted. A post offer advertisement, giving details of the acquisitions, is required to be published by the acquirer within 5 working days of the completion of payments under the open offer.

Publication

The public announcement should be sent to all the stock exchanges on which the shares of the target company are listed, and the stock exchanges should forthwith disseminate such information to the public.

A copy of the public announcement should be sent to the Board and to the target company at its registered office within one working day of the date of the public announcement.

The detailed public statement pursuant to the public announcement referred to in sub-regulation (4) of regulation 13 should be published in all editions of any one English national daily with wide circulation, any one Hindi national daily with wide circulation, and any one regional language daily with wide circulation at the place where the registered office of the target company is situated and one regional language daily at the place of the stock exchange where the maximum volume of trading in the shares of the target company are recorded during the sixty trading days preceding the date of the public announcement.

Simultaneously with publication of such detailed public statement in the newspapers, a copy of the same should be sent to:

(i) the Board through the manager to the open offer,

(ii) all the stock exchanges on which the shares of the target company are listed, and the stock exchanges should forthwith disseminate such information to the public,

(iii) the target company at its registered office, and the target company should forthwith circulate it to the members of its board.

Competitive offer

Competitive offer is an offer made by a person, other than the acquirer who has made the first public announcement. A competitive offer shall be made within 15 working days of the date of the Detailed Public Statement (DPS) made by the acquirer who has made the first PA.

If there is a competitive offer, the acquirer who has made the original public announcement can revise the terms of his open offer provided the revised terms are favorable to the shareholders of the target company.

Further, the bidders are entitled to make revision in the offer price up to 3 working days prior to the opening of the offer. The schedule of activities and the offer opening and closing of all competing offers shall be carried out with identical timelines.

Conditional offer

An offer in which the acquirer has stipulated a minimum level of acceptance is known as a 'conditional offer'.

'Minimum level of acceptance' implies minimum number of shares which the acquirer desires under the said conditional offer. If the number of shares validly tendered in the conditional offer, are less than the minimum level of acceptance stipulated by the acquirer, then the acquirer is not bound to accept any shares under the offer.

Disclosures

Disclosures required under the Public Announcement

Public Announcement contains minimum details about the offer, the transaction that triggered the open offer obligations, acquirer, selling shareholders (if any), offer price and mode of payment.

Disclosures required under the Detailed Public Statement

Detailed Public Statement contains disclosure in more detail about the acquirer/PACs, target company, financials of the acquirers/PACs/target company, the offer, terms & conditions of the offer, procedure for acceptance and settlement of the offer, escrow account etc.

Disclosures required under the Letter of offer

Letter of offer contains details about the offer, background of Acquirers/PACS, financial statements of Acquirer/ PACs, escrow arrangement, background of the target company, financial statements of the target company, justification for offer price, financial arrangements, terms and conditions of the offer, procedure for acceptance and settlement of the offer. SEBI has prescribed the format for Letter of offer, which enumerates minimum disclosure requirements. The Manager to the offer/ acquirer is free to add any other disclosures which in his opinion are material for the shareholders.

Event based Disclosures

- Any person, who along with PACs crosses the threshold limit of 5% of shares or voting rights, has to disclose his aggregate shareholding and voting rights to the Target Company at its registered office and to every Stock Exchange where the shares of the Target Company are listed within 2 working days of acquisition as per the format specified by SEBI.
- Any person who holds 5% or more of shares or Voting rights of the target company and who acquires or sells shares representing 2% or more of the voting rights, shall disclose details of such acquisitions/ sales to the Target company at its registered office and to every Stock Exchanges where the shares of the Target Company are listed within 2 working days of such transaction, as per the format specified by SEBI.

Continual disclosures

Continual disclosures of aggregate shareholding shall be made within 7 days of financial year ending on March 31 to the target company at its registered office and every stock exchange where the shares of the Target Company are listed by:

a. Shareholders (along with PACs, if any) holding shares or voting rights entitling them to exercise 25% or more of the voting rights in the target company.

b. Promoter (along with PACs, if any) of the target company irrespective of their percentage of holding.

Disclosures of encumbered shares

The promoter (along with PACs) of the target company shall disclose details of shares encumbered by them or any invocation or release of encumbrance of shares held by them to the target company at its registered office and every stock exchange where shares of the target company are listed, within 7 working days of such event.

Penalties for non-compliance

SAST Regulations, 2011 have laid down the general obligations of acquirer, Target Company and the manager to the open offer. For failure to carry out obligations as well as for failure / non-compliance of other provisions of the Regulations, penalties have been laid down. These penalties include:

- directing the divestment of shares acquired;
- directing the transfer of the shares / proceeds of a directed sale of shares to the investor protection fund;
- directing the target company / any depository not to give effect to any transfer of shares;

- directing the acquirer not to exercise any voting or other rights attached to shares acquired;
- debarring person(s) from accessing the capital market or dealing in securities;
- directing the acquirer to make an open offer at an offer price determined by SEBI in accordance with the Regulations;
- directing the acquirer not to cause, and the target company not to effect, any disposal of assets of the target company or any of its subsidiaries unless mentioned in the letter of offer;
- directing the acquirer to make an offer and pay interest on the offer price for having failed to make an offer or has delayed an open offer;
- directing the acquirer not to make an open offer or enter into a transaction that would trigger an open offer, if the acquirer has failed to make payment of the open offer consideration;
- directing the acquirer to pay interest of for delayed payment of the open offer consideration;
- directing any person to cease and desist from exercising control acquired over any target company;
- directing divestiture of such number of shares as would result in the shareholding of an acquirer and persons acting in concert with him being limited to the maximum permissible non-public shareholding limit or below.

4.8 SEBI (PROHIBITION OF FRAUDULENT AND UNFAIR TRADE PRACTICES RELATING TO SECURITIES MARKETS) REGULATIONS, 2003

The SEBI (Prohibition of Fraudulent and Unfair Trade Practices Relating To Securities Markets) Regulations, 2003 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. The regulations specifically prohibit fraudulent dealings, 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, by an investigating officer in respect of conduct and affairs of any person buying, selling, and otherwise dealing in securities. Based on the report of the investigating officer, SEBI can initiate action for suspension or cancellation of registration of an intermediary.

The term 'fraud' has been defined by Regulation 2(1)(c). Fraud includes any act, expression, omission or concealment committed whether in a deceitful manner or not by a person or by any other person with his connivance or by his agent while dealing in securities in order to induce another person or his agent to deal in securities, whether or not there is any wrongful gain or avoidance of any loss, and shall also include:

(1) a knowing misrepresentation of the truth or concealment of material fact in order that another person may act to his detriment;

(2) a suggestion, as to a fact, of that which is not true, by one who does not believe it to be true;

(3) an active concealment of a fact by a person having knowledge or belief of the fact;

(4) a promise made without any intention of performing it;

(5) a representation made in a reckless and careless manner whether it be true or false;

(6) deceptive behaviour by a person depriving another of informed consent or full participation,

(7) a false statement made without reasonable ground for believing it to be true

(8) the act of an issuer of securities giving out misinformation that affects the market price of the security, resulting in investors being effectively misled eventhough they did not rely on the statement itself or anything derived from it other than the market price

(9) any such act or omission as the law specially declares to be fraudulent; and 'fraudulent' shall be construed accordingly.

The regulation prohibits:

a) dealings in securities in a fraudulent manner,

b) market manipulation,

c) misleading statements to induce sale or purchase of securities, and

d) unfair trade practice relating to securities

Prohibition of certain dealings in securities

(i) A person shall not buy, sell or otherwise deal in securities in a fraudulent manner.

(ii) use or employ, in connection with issue, purchase or sale of any security listed or proposed to be listed in a recognized stock exchange, any manipulative or deceptive device or contrivance in contravention of the provisions of the Act or the rules or the regulations made there under;

(iii) employ any device, scheme or artifice to defraud in connection with dealing in or issue of securities which are listed or proposed to be listed on a recognized stock exchange;

(iv) engage in any act, practice, course of business which operates or would operate as fraud or deceit upon any person in connection with any dealing in or issue of securities which are listed or proposed to be listed on a recognized stock exchange in contravention of the provisions of the Act or the rules and the regulations made there under.

Prohibition of manipulative, fraudulent and unfair trade practices

(1) Without prejudice to the provisions of regulation 3 'Prohibition of certain dealing in securities' of SEBI (Unfair Trade Practices) Regulations, 2003), no person shall indulge in a fraudulent or an unfair trade practice in securities.

(2) Dealing in securities shall be deemed to be a fraudulent or an unfair trade practice if it involves fraud and may include all or any of the following, namely:-

(a) indulging in an act which creates false or misleading appearance of trading in the securities market;

(b) dealing in a security not intended to effect transfer of beneficial ownership but intended to operate only as a device to inflate, depress or cause fluctuations in the price of such security for wrongful gain or avoidance of loss;

(c) advancing or agreeing to advance any money to any person thereby inducing any other person to offer to buy any security in any issue only with the intention of securing the minimum subscription to such issue;

(d) paying, offering or agreeing to pay or offer, directly or indirectly, to any person any money or money's worth for inducing such person for dealing in any security with the object of inflating, depressing, maintaining or causing fluctuation in the price of such security;

(e) any act or omission amounting to manipulation of the price of a security;

(f) publishing or causing to publish or reporting or causing to report by a person dealing in securities any information which is not true or which he does not believe to be true prior to or in the course of dealing in securities;

(g) entering into a transaction in securities without intention of performing it or without intention of change of ownership of such security;

(h) selling, dealing or pledging of stolen or counterfeit security whether in physical or dematerialized form;

(i) an intermediary promising a certain price in respect of buying or selling of a security to a client and waiting till a discrepancy arises in the price of such security and retaining the difference in prices as profit for himself;

(j) an intermediary providing his clients with such information relating to a security as cannot be verified by the clients before their dealing in such security;

(k) an advertisement that is misleading or that contains information in a distorted manner and which may influence the decision of the investors;

(l) an intermediary reporting trading transactions to his clients entered into on their behalf in an inflated manner in order to increase his commission and brokerage;

(m) an intermediary not disclosing to his client transactions entered into on his behalf including taking an option position;

(n) circular transactions in respect of a security entered into between intermediaries in order to increase commission to provide a false appearance of trading in such security or to inflate, depress or cause fluctuations in the price of such security;

(o) encouraging the clients by an intermediary to deal in securities solely with the object of enhancing his brokerage or commission.

(p) an intermediary predating or otherwise falsifying records such as contract notes.

(q) an intermediary buying or selling securities in advance of a substantial client order or whereby a futures or option position is taken about an impending transaction in the same or related futures or options contract.

(r) planting false or misleading news which may induce sale or purchase of securities.

4.9 CORPORATE GOVERNANCE

Corporate governance is the acceptance by management of the inalienable rights of shareholders as the true owners of the corporation and of their own role as trustees on behalf of the shareholders. It is about commitment to values, about ethical business conduct and about making a distinction between personal and corporate funds in the management of a company.

In its constant endeavor to improve the standards of corporate governance in India in line with needs of a dynamic market, SEBI constituted a Committee on Corporate Governance under the Chairmanship of Shri N. R. Narayana Murthy, to evaluate the adequacy of existing corporate governance practices and further improve these practices. The issues discussed by the Committee primarily related to audit committees, audit reports, independent directors, related parties, risk management, directorships and director compensation, codes of conduct and financial disclosures. The Committee’s recommendations in the final report were selected based on parameters including their relative importance, fairness, accountability, transparency, ease of implementation, verifiability and enforceability.

Corporate Governance in Listed Companies

SEBI, based on the recommendations of the Committee and public comments received on the report, has approved certain amendments in the clause 49 of the Listing Agreement and directed all the companies to comply with the requirements of the clause with effect from January 1, 2006. The new clause 49 is as given below:

I. BOARD OF DIRECTORS:

(A) Composition of the Board

The Board of directors of the company shall have an optimum combination of executive and non-executive directors with not less than fifty percent of the board of directors comprising of non-executive directors. The number of independent directors shall depend on whether the chairman of the board is an executive or a non-executive director. In case of the chairman being an executive director, at least half of the board should comprise of independent directors, else one third of the board should comprise of independent directors Provided that where the non-executive Chairman is a promoter of the company or is related to any promoter or person occupying management positions at the Board level or at one level below the Board, at least one-half of the Board of the company shall consist of independent directors.

(B) Non Executive director's compensation and disclosures

Sitting fees paid to non-executive directors as authorized by the Companies Act, 1956 would not require the previous approval of shareholders.

(C) Other provisions as to Board and Committees

(i) The board shall meet at least four times a year, with a maximum gap of four months between any two meetings.

(ii) A director shall not be a member in more than ten committees or act as Chairman of more than five committees across all companies in which he is a director. Furthermore it should be a mandatory annual requirement for every director to inform the company about the committee positions he occupies in other companies and notify changes as and when they take place.

(iii) The Board shall periodically review compliance reports of all laws applicable to the company prepared by the company as well as steps taken by the company to rectify instances of non-compliances.

(iv) An independent director who resigns or is removed from the Board of the Company shall be replaced by a new independent director within a period of not more than 180 days from the day of such resignation or removal, as the case may be:

Provided that where the company fulfils the requirement of independent directors in its Board even without filling the vacancy created by such resignation or removal, as the case may be, the requirement of replacement by a new independent director within the period of 180 days shall not apply

(D) Code of conduct

It shall be obligatory for the board of a company to lay down the code of conduct for all board members and senior management of a company. This code of conduct shall be posted on the website of the company. All the members of the board and senior management personnel shall affirm compliance with the code on an annual basis. The annual report of the company shall contain a declaration to this effect signed by the CEO.

II. AUDIT COMMITTEE

(A) Qualified and Independent audit committee

The audit committee shall have minimum three directors as members. Two-thirds of the members of audit committee shall be independent directors. All members of audit committee shall be financially literate and at least one member shall have accounting or related financial management expertise. The chairman of the audit committee shall be an independent director. The chairman of the audit committee shall be present at annual general meeting to answer shareholder queries. The audit committee may invite such of the executives, as it considers appropriate (and particularly the head of the finance function) to be present at the meetings of the committee, but on occasions it may also meet without the presence of any executives of the company. The finance director, head of internal audit and a representative of the statutory auditor may be present as invitees for the meetings of the audit committee. The company secretary shall act as the secretary to the company.

(B) Meeting of Audit Committee

The audit committee should meet at least four times in a year and not more than four months shall elapse between two meetings. The quorum shall be either two members or one third of the members of the audit committee whichever is greater, but there should be a minimum of two independent members present.

(C) Powers of the audit committee

The audit committee shall have powers, which should include the following:

(i) to investigate any activity within its term of reference.

(ii) to seek information from any employee.

(iii) to obtain outside legal or other professional advice.

(iv) to secure attendance of outsiders with relevant expertise, if it considers necessary.

(D) Role of Audit Committee

The role of the audit committee shall include the following:

(i) Oversight of the company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.

(ii) Recommending to the Board, the appointment, re-appointment and, if required, the replacement or removal of the statutory auditor and the fixation of audit fees.

(iii) Approval of payment to statutory auditors for any other services rendered by the statutory auditors.

(iv) Reviewing, with the management, the annual financial statements before submission to the board for approval, with particular reference to:

a. Matters required to be included in the Director's Responsibility Statement to be included in the Board's report in terms of clause (2AA) of section 217 of the Companies Act, 1956

b. Changes, if any, in accounting policies and practices and reasons for the same

c. Major accounting entries involving estimates based on the exercise of judgment by management

d. Significant adjustments made in the financial statements arising out of audit findings

e. Compliance with listing and other legal requirements relating to financial statements

f. Disclosure of any related party transactions

g. Qualifications in the draft audit report.

(v) Reviewing, with the management, the quarterly financial statements before submission to the board for approval

(vi) Reviewing with the management, the statement of uses/application of funds raised through an issue (public issue, rights issue, preferential issue, etc.), the statement of funds utilized for purposes other than those stated in the offer document/ prospectus/ notice and the report submitted by the monitoring agency monitoring the utilization of proceeds of a public or rights issue, and making appropriate recommendations to SEBI to take up steps in this matter.

(vii) Reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems.

(viii) Reviewing the adequacy of internal audit function, if any, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure coverage and frequency of internal audit.

(ix) Discussion with internal auditors any significant findings and follow up there on.

(x) Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the board.

(xi) Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern.

(xii) To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non payment of declared dividends) and creditors.

(xiii) Approval of appointment of CFO (i.e. the whole time Finance Director or any other person heading in the finance function or discharging the function after assessing the qualifications, experience and background etc. of the candidate.)

(xiv) To review the functioning of the Whistle Blower mechanism, in case the same is existing.

(xv) Carrying out any other function as is mentioned in the terms of reference of the Audit Committee.

(E) Review of information by Audit Committee

The Audit Committee shall mandatorily review the following information:

(i) Management discussion and analysis of financial condition and results of operations;

(ii) Statement of significant related party transactions (as defined by the audit committee), submitted by management;

(iii) Management letters / letters of internal control weaknesses issued by the statutory auditors;

(iv) Internal audit reports relating to internal control weaknesses; and

(v) The appointment, removal and terms of remuneration of the Chief internal auditor shall be subject to review by the Audit Committee

WHISTLE BLOWER POLICY

A whistle blower is an employee or ex-employee who provides information about his or her company which he/she reasonably believes provides evidence of:

a) A violation of law or regulation by the company

b) Financial malpractice

c) A danger to public health or safety

As an internal policy on access to audit committees, personnel who observe an unethical or improper practice should be able to approach the audit committee without necessarily informing their supervisors. Companies shall take measures to ensure that this right of access is communicated to all employees through means of internal circulars etc. the employment and other personnel policies of the company shall contain provisions protecting 'whistle blowers' from unfair termination and other unfair prejudicial employment practices.

III. SUBSIDIARY COMPANIES

(i) At least one independent director on the Board of directors of the holding company shall be a director on the Board of directors of a material non listed Indian subsidiary company.

(ii) The audit committee of the listed holding company shall also review the financial statements, in particular, the investments made by the unlisted subsidiary company.

(iii) The minutes of the board meetings of the unlisted subsidiary company shall be placed at the board meetings of the listed holding company. The management should periodically bring to the attention of the board of directors of the listed holding company, a statement of all significant transactions and arrangements entered into by the unlisted subsidiary company.

IV. DISCLOSURES

(A) Basis of related party transactions

(i) A statement in summary form of transactions with related parties in the ordinary course of business shall be placed periodically before the audit committee.

(ii) Details of material individual transactions with related parties which are not in the normal course of business shall be placed before the audit committee.

(iii) Details of material individual transactions with related parties or others, which are not on an arm's length basis should be placed before the audit committee, together with Management's justification for the same..

(B) Disclosure of Accounting treatment

Where in the preparation of financial statements, a treatment different from that prescribed in an Accounting Standard has been followed, the fact shall be disclosed in the financial statements, together with the management's explanation as to why it believes such alternative treatment is more representative of the true and fair view of the underlying business transaction in the Corporate Governance Report.

(C) Board Disclosures – Risk management

The company shall lay down procedures to inform Board members about the risk assessment and minimization procedures. These procedures shall be periodically reviewed to ensure that executive management controls risk through means of a properly defined framework.

(D) Proceeds from public issues, rights issues, preferential issues etc.

When money is raised through an issue (public issues, rights issues, preferential issues etc.), it shall disclose to the Audit Committee, the uses / applications of funds by major category (capital expenditure, sales and marketing, working capital, etc), on a quarterly basis as a part of their quarterly declaration of financial results. Further, on an annual basis, the company shall prepare a statement of funds utilized for purposes other than those stated in the offer document/prospectus/notice and place it before the audit committee. Such disclosure shall be made only till such time that the full money raised through the issue has been fully spent. This statement shall be certified by the statutory auditors of the company. Furthermore, where the company has appointed a monitoring agency to monitor the utilization of proceeds of a public or rights issue, it shall place before the Audit Committee the monitoring report of such agency upon receipt without any delay. The audit committee shall make appropriate recommendations to the Board to take up steps in this matter.

(E) Remuneration of Directors

All pecuniary relationship or transactions of the non-executive directors vis-à-vis the company shall be disclosed in the Annual Report. Further the disclosures on the remuneration of directors shall be made in the section on the corporate governance of the annual report. Non-executive directors shall be required to disclose their shareholding in the listed company in which they are proposed to be appointed as directors, prior to their appointment. These details should be disclosed in the notice to the general meeting called for appointment of such director.

(F) Management

As part of the director's report or as an addition thereto, a Management Discussion and Analysis report should form a part of the Annual Report to the shareholders. Senior management shall make disclosures to the board relating to all material financial and commercial transactions, where they have personal interest, that may have a potential conflict with the interest of the company at large.

(G) Shareholders

In case of the appointment of a new director or re-appointment of a director the shareholders must be provided with information giving a brief resume of the director, nature of his expertise in specific functional areas, and names of companies in which the person also holds the directorship and the membership of Committees of the Board. Disclosure of relationships between directors inter se shall be made in the Annual Report, notice of appointment of a director, prospectus and letter of offer for issuances and any related filings made to the stock exchange where the company is listed. Information like quarterly results, presentation made by companies to analysts shall be put on company's website, or shall be sent in such a form so as to enable the stock exchange on which the company is listed to put it on its own website. A board committee under the chairmanship of a non-executive director shall be formed to specifically look into the redressal of shareholder and investors complaints like transfer of shares, non receipt of balance sheet, non receipt of declared dividends etc. This committee shall be designated as 'Shareholders/Investors Grievance Committee'. To expedite the process of share transfers, the Board of the company shall delegate the power of share transfer to an officer or a committee or to the registrar and share transfer agents. The delegated authority shall attend to share transfer formalities at least once on a fortnight.

(V) CEO/CFO Certification

The CEO, i.e. the Managing Director or Manager appointed in terms of the Companies Act, 1956 and the CFO i.e. the whole-time Finance Director or any other person heading the finance function discharging that function shall certify to the Board that:

(a) They have reviewed financial statements and the cash flow statement for the year and that to the best of their knowledge and belief:

  (i) these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;

  (ii) these statements together present a true and fair view of the company's affairs and are in compliance with existing accounting standards, applicable laws and regulations.

(b) There are, to the best of their knowledge and belief, no transactions entered into by the company during the year which are fraudulent, illegal or violative of the company's code of conduct.

(c) They accept responsibility for establishing and maintaining internal controls for financial reporting and that they have evaluated the effectiveness of the internal control systems of the company pertaining to financial reporting and they have disclosed to the auditors and the Audit Committee, deficiencies in the design or operation of such internal controls, if any, of which they are aware and the steps they have taken or propose to take to rectify these deficiencies.

(d) They have indicated to the auditors and the Audit committee

   (i) significant changes in internal control over financial reporting during the year;

   (ii) significant changes in accounting policies during the year and that the same have been disclosed in the notes to the financial statements; and

   (iii) instances of significant fraud of which they have become aware and the involvement therein, if any, of the management or an employee having a significant role in the company's internal control system over financial reporting

(VI) REPORT ON CORPORATE GOVERNANCE

There shall be a separate section on Corporate Governance in the Annual Reports of company, with a detailed compliance report on Corporate Governance. Non-compliance of any mandatory requirement of this clause with reasons thereof and the extent to which the non-mandatory requirements have been adopted should be specifically highlighted. The companies shall submit a quarterly compliance report to the stock exchanges within 15 days from the close of quarter as per the format. The report shall be signed either by the Compliance officer or the CEO of the company.

(VII) COMPLIANCE

The company shall obtain a certificate from either the auditors or practicing company secretaries regarding compliance of conditions of corporate governance as stipulated in this clause and annex the certificate with the director's report, which is sent annually to all the shareholders of the company. The same certificate shall also be sent to stock exchanges along with the annual report filed by the company.

4.10 INVESTIGATION[21]

Power to issue directions[22]

SEBI has the power to issue directions, if after making or causing to be made an enquiry, the Board is satisfied that it is necessary -

(i) in the interest of investors, or orderly development of securities market; or

(ii) to prevent the affairs of any intermediary or other persons referred to in section 12 of SEBI Act 1992 being conducted in a manner detrimental to the interests of investors or securities market; or

21 Source: SEBI Act 1992 and SEBI (Prohibition of Insider Trading Regulations, 1992)

22 Sourced from SEBI Act 1992

(iii) to secure the proper management of any such intermediary or person, it may issue such directions:

(a) to any person or class of persons referred to in section 12 of SEBI Act 1992, or associated with the securities market; or

(b) to any company in respect of matters specified in section 11A as may be appropriate in the interests of investors in securities and the securities market.

Power to order investigation[23]

SEBI has the power to issue directions to investigate, where the board has reasonable ground to believe that (i) the transactions in securities are being dealt with in a manner detrimental to the investors or the securities market; or (ii) any intermediary or any person associated with the securities market has violated any of the provisions of this Act or the rules or the regulations made or directions issued by the Board thereunder.

SEBI may, at any time by order in writing, direct any person (referred as 'Investigating Authority) specified in the order to investigate the affairs of such intermediary or persons associated with the securities market and to report thereon to the Board.

Power of SEBI to make inquiries and inspection[24]

(1) If the Board suspects that any person has violated any provision of the regulations, it may make inquiries with such persons or any other person

(2) The Board may appoint one or more officers to inspect the books and records of insider(s) or any other persons for the purpose.

SEBI's right to investigate[29]

(1) Where the Board, is of prima facie opinion, that it is necessary to investigate and inspect the books of account, other records and documents of an insider or any other person, it may appoint an investigating authority for the said purpose.

(2) The purposes referred to in sub-regulation (1) may be as follows:

(a) to investigate into the complaints received from investors, intermediaries or any other person on any matter having a bearing on the allegations of insider trading; and

(b) to investigate suo-moto upon its own knowledge or information in its possession to protect the interest of investors in securities against breach of these regulations.

23 Section 11 B of SEBI Act 1992.
24 Sourced from SEBI (Prohibition of Insider Trading Regulations, 1992)

Procedure for investigation

(1) Before undertaking an investigation (under regulation 5 of SEBI Insider Trading Prohibition of Insider Trading) Regulations, 1992, the Board shall give a reasonable notice to insider for that purpose.

(2) Notwithstanding anything contained in sub-regulation (1), where the Board is satisfied that in the interest of investors or in public interest no such notice should be given, it may by an order in writing direct that the investigation be taken up without such notice.

(3) On being empowered by the Board, the investigating authority shall undertake the investigation and inspection of books of accounts and the insider against whom an investigation is being carried out (an insider or any other person mentioned in clause (i) of sub-section (1) of section 11 of the SEBI Act 1992) shall be bound to discharge his obligations as provided in regulation 7.

Obligations of insider on investigation by the Board

(1) It shall be the duty of every insider, who is being investigated, or any other person[25] to produce to the investigating authority such books, accounts and other documents in his custody or control and furnish the authority with the statements and information relating to the transactions in securities market within such time as the said authority may require.

(2) The insider or any other person[26] shall allow the investigating authority to have reasonable access to the premises occupied by such insider and also extend reasonable facility for examining any books, records, documents and computer data in his possession of the stock- broker or any other person and also provide copies of documents or other materials which, in the opinion of the investigating authority are relevant.

(3) The investigating authority, in the course of investigation, shall be entitled to examine or record statements of any member, director, partner proprietor and employee of the insider or any other person[27].

(4) It shall be the duty of every director, proprietor, partner, officer and employee of the insider to give to the investigating authority all assistance in connection with the investigation, which the insider or any other person[28] may be reasonably expected to give.

25 mentioned in clause (i) of sub-section (1) of section 11 of the SEBI Act 1992
26 mentioned in clause (i) of sub-section (1) of section 11 of the SEBI Act 1992
27 mentioned in clause (i) of sub-section (1) of section 11 of the SEBI Act 1992.
28 mentioned in clause (i) of sub-section (1) of section 11 of the SEBI Act 1992.

Submission of Report to the Board

The investigating authority shall, within reasonable time of the conclusion of the investigation submit an investigation report to the Board.

Communication of Findings, etc.

(1) The Board shall, after consideration of the investigation report communicate the findings to the person suspected to be involved in insider trading or violation of these regulations.

(2) The person to whom such findings has been communicated shall reply to the same within 21 days; and

(3) On receipt of such a reply or explanation, if any, from such person, the Board may take such measures as it deems fit to protect the interests of the investors and in the interests of the securities market and for the due compliance of the provisions of the Act, the Regulations made thereunder including the issue of directions under regulation 11.

Appointment of Auditor

Notwithstanding anything contained in regulation 4A and regulation 5, the Board may appoint a qualified auditor to investigate into the books of account or the affairs of the insider or any other person mentioned in clause (I) of sub-section (1) of section 11 of the SEBI Act.

Provided that, the auditor so appointed shall have the same powers of the inspecting authority as stated in regulation 5 and the insider shall have the obligations specified in regulation 7.

Directions by the Board

The Board may without prejudice to its right to initiate criminal prosecution under section 24 or any action under Chapter VIA of the Act, to protect the interests of investors and in the interests of the securities market and for due compliance with the provisions of the Act, Regulations made thereunder issue any or all of the following order, namely: -

(a) directing the insider or such person as mentioned in clause (i) of sub-section (2) of section 11 of the SEBI Act 1992 not to deal in securities in any particular manner;

(b) prohibiting the insider or such person as mentioned in clause (i) of sub-section (2) of section 11 of the Act 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;

(d) declaring the transaction(s) in securities as null and void;

(e) directing the person who acquired the securities in violation of these regulations to deliver the securities back to the seller;

Provided that in case the buyer is not in a position to deliver such securities, the market price prevailing at the time of issuing of such directions or at the time of transactions whichever is higher, shall be paid to the seller.

(f) directing the person who has dealt in securities in violation of these regulations to transfer an amount or proceeds equivalent to the cost price or market price of securities, whichever is higher to the investor protection fund of a Recognised Stock Exchange.

4.11 CODE OF ETHICS[29]

The 'Code of Ethics' for Directors and Functionaries of the Stock Exchanges, is aimed at improving the professional and ethical standards in the functioning of exchanges thereby creating better investor confidence in the integrity of the market.

Objectives and Underlying Principles

The code of ethics for directors and functionaries of the exchange seeks to establish a minimum level of business / professional ethics to be followed by these functionaries, towards establishing a fair and transparent marketplace. The code of ethics is based on the following fundamental principles:

a) Fairness and transparency in dealing with matters relating to the exchange and the investors

b) Compliance with all laws / rules / regulations laid down by regulatory agencies/ exchange

c) Exercising due diligence in the performance of duties

d) Avoidance of conflict of interest between self interests of directors / functionaries and interests of exchange and investors

Definitions

1. **Functionaries:** Functionaries of the exchange to whom this code shall be applicable shall be decided by the exchange but shall include all officials of the rank of General Manager and above.
2. **Family:** Family members will include dependent spouse, dependent children, dependent parents.
3. **Securities:** Securities for the purpose of this code shall not include mutual fund units and government securities.

29 SEBI Master circular CIR/MRD/DSA/SE/43/2010 dated December 31, 2010.

General Standards

Directors and functionaries:

a) should endeavour to promote greater awareness and understanding of ethical responsibilities

b) should observe high standards of commercial honour and just and equitable principles of trade

c) should not use their position to do or get favours from the executive or administrative staff of the exchange, suppliers of the exchange or any listed company of the exchange.

d) should not commit any act which will put the reputation of the exchange in jeopardy

The conduct of Directors and functionaries in business life should be exemplary which will set a standard for other members of the exchange to follow. Also, the directors, committee members and functionaries of the exchange should comply with all rules and regulations applicable to the securities market.

Prohibition on dealings in securities in proprietary account by elected office bearers of the exchange (Chairman)

Elected office bearers (Chairman) of the exchange should refrain from proprietary trades in securities, directly or indirectly, during the period of holding office.

Disclosure of dealings in securities by functionaries of the exchange

(i) Functionaries of the exchange should disclose on a periodic basis as determined by the exchange (which could be monthly), all their dealings in securities, directly or indirectly, to the Governing Board / Ethics Committee / designated compliance officer.

(ii) The dealings in securities should also be subject to trading restrictions for securities about which functionaries in the exchange may have non-public price sensitive information. Requirement laid down under SEBI Insider Trading Regulations may be referred in this regard.

(iii) All transactions must be of an investment nature and not speculative in nature. Towards this end, all securities purchased must be held for a minimum period of 60 days before they are sold. However, in specific / exceptional circumstances, sale can be effected anytime by obtaining pre-clearance from the compliance officer or any other designated authority who will be empowered to waive this condition after recording in writing his satisfaction in this regard.

Disclosure of dealings in securities by directors of the exchange

(i) Directors (other then elected office bearers as per clause 2) of the exchange shall disclose on a periodic basis, as determined by the exchange (which could be monthly), their proprietary trading, directly or indirectly, to the Ethics Committee.

(ii) All Directors should also disclose on a periodic basis as above, the trading conducted by firms/corporate entities in which they hold 20% or more beneficial interest or hold a controlling interest; to the Ethics Committee.

Directors who are Government of India nominees or nominees of Government of India statutory bodies or Financial Institutions and are governed by their own codes shall be exempt from this requirement.

Avoidance of Conflict of Interest

(i) No director of the governing board or member of any committee of the exchange should participate in any decision making / adjudication in respect of any person / matter in which he is in any way, directly or indirectly, concerned or interested.

(ii) Whether there is any conflict of interest or not in a matter, should be decided by the governing board.

Disclosures of beneficial interest:

All Directors and functionaries should disclose to the Governing Board, upon assuming office and during their tenure in office, whenever the following arises,

(i) any fiduciary relationship of self and family members and directorship / partnership of self and family members in any broking outfit,

(ii) shareholding, in cases where the shareholding of the director, directly or through his family exceeds 5% in ay listed company on the exchange or in other entities related to the capital markets,

(iii) any other business interests.

Role of the Chairman and Directors in the day to day functioning of the Exchange

(i) The Chariman and directors should not interfere in the day to day functioning of the exchange and shall limit their role to decision making on policy issues and to issues as the Governing Board may decide.

(ii) The Chairman and directors should abstain from influencing the employees of the exchange in conducting their day to day activities.

(iii) The Chairman and directors should not be directly involved in the function of appointment and promotion of employees unless specifically so decided by the Governing Board.

Access to Information

(i) Directors should call for information only as part of specific committees or as may be authorized by the Governing Board.

(ii) There should be prescribed channels through which information should move and further there should be audit trail of the same. Any retrieval of confidential documents/ information should be properly recorded.

(iii) All such information, especially which is non-public and price sensitive, should be kept confidential and not be used for any personal consideration / gain.

(iv) Any information relating to the business / operations of the exchange, which may come to the knowledge of directors / functionaries during performance of their duties should be held in strict confidence, shall not be divulged to any third party and should not be used in any manner except for the performance of their duties.

Misuse of Position:

Directors / committee members should not use their position to obtain business or any precuniary benefit (as intermediaries like brokers or in any other capacity like professional or consultancies) in the organization for themselves or family members.

Ethics Committee to lay down procedures and designate compliance officer

a) The ethics committee should lay down procedures for the implementation of the code and prescribe reporting formats for the disclosures required under the code.

b) The ethics committee may designate a senior officer of the exchange as compliance officer for executing the requirements laid down by it.

While the objective of this code is to enhance the level of market integrity and investor confidence, it is emphasized that a written code of ethics may not completely guarantee adherence to high ethical standards. This can be accomplished only if directors and functionaries of the exchange commit themselves to the task of enhancing the fairness and integrity of the system in letter and spirit.

CHAPTER 5
BASIC INVESTMENT MATHEMATICS

5.1 RETURN AND RISK

Return and risk are the two key determinants of security prices or values. This calls for an explicit and quantitative understanding of the concepts.

5.1.1 Return and Risk of a Single Asset

Return on an investment/asset for given period, say a year, consists of annual income (dividend) receivable plus change in market price. Symbolically,

Rate of Return (R) = $\frac{Yd_t + (P_t - P_{t-1})}{P_{t-1}}$

Where,

Yd_t = annual income/cash dividend at the end of time period 't'.

P_t = security price at time period 't' which is closing/ending price.

P_{t-1} = security price at time period 't-1' which is opening/beginning price.

For example, for a security if price at the beginning of the year is Rs. 50.00; dividend receivable at the end of the year is Rs. 2.50; and price at the end of the year is Rs. 55.00 then, the rate of return on this security is:

$$\frac{2.50 + (55.00 - 50.00)}{50} = 0.15 = 15\%$$

The rate of return of 15 per cent has two components:

(i) Current yield i.e. annual income ÷ opening/beginning price = 2.50 ÷ 50.00 =.05 = 5% and

(ii) Capital gains/loss yield, i.e. (end price-opening price) ÷ opening/beginning price = (Rs.55 – Rs. 50) ÷ Rs. 50 =0.1 = 10%

Risk may be described as variability/fluctuation/deviation of actual return from expected return from a given asset/investment. Higher the variability, greater is the risk. In other words, the more certain the return from an asset, lesser is the variability and thereby lesser is the risk.

Types of Risks

The risk of a security can be broadly classified into two types such as systematic risk and unsystematic risk. Standard deviation has been used as a proxy measure for total risk.

Systematic Risk

Systematic Risk refers to that portion of total variability (/risk) in return caused by factors affecting the prices of all securities. Economic, political, and sociological changes are the main sources of systematic risk. Though it affects all the securities in the market, the extent to which it affects a security will vary from one security to another. To put it differently, the systematic risks of various securities differ due to their relationship with market. Systematic risk can **not** be diversified. Systematic risk can be measured in terms of Beta (β), a statistical measure. The β factor describes the movement in a security's or a portfolio's return in relation to that of the market returns. The beta for market portfolio is equal to one by definition. Beta of one (β=1), indicates that volatility of return on the security is same as the market or index; beta more than one (β>1) indicates that the security has more unavoidable risk or is more volatile than market as a whole, and beta less than one (β<1) indicates that the security has less systematic risk or is less volatile than market.

Unsystematic risk

Unsystematic Risk refers to that portion of total risk that is unique or peculiar to a firm or an industry, above and beyond that affecting securities markets in general. Factors like consumer preferences, labour strikes, management capability etc. cause unsystematic risk (/variability of returns) for a company's stock. Unlike systematic risk, the unsystematic risk can be reduced/avoided through diversification. Total risk of a fully diversified portfolio equals to the market risk of the portfolio as its specific risk becomes zero.

Measurement of Risk for a Single Asset:

The statistical measures of a risk of an asset are: (a) Standard Deviation and (b) Co-efficient of variation.

(a) *Standard Deviation of Return* (σ_R): Standard deviation (σ), is the most common statistical measure of risk of an asset from the expected value of return. It measures the fluctuations around mean returns. It represents the square root of average squared deviations of individual returns (R_i) from the expected return ($\overline{R}$). Symbolically,

$$\sigma_R = \sqrt{\sum_{i=1}^{n} \frac{(R_i - \overline{R})^2}{N}}$$

Variance **(σ^2)** on the other hand, equals to average of squares of deviations of individual returns (R_i) from expected returns ($\overline{R}$). Symbolically,

$$\sigma^2_R = \sum_{i=1}^{n} \frac{(R_i - \overline{R})^2}{N}$$

Thus, Standard Deviation (σ) equals to the positive square root of variance (σ^2) i.e.

Standard Deviation = $\sqrt{Variance}$.

Example-1: The stock returns of the company A for past five years are 10%, 20% 5%, 30% and 35%. What is the *standard deviation* of the returns for the returns of the company A?

$$\overline{R} = \frac{10+20+5+30+35}{5} = 20$$

$$\sigma_R = \sqrt{\frac{\sum_{i=1}^{N}(R_i - \overline{R})^2}{N}} \quad \sigma_R = \sqrt{\frac{[(10-20)]^2 + [(20-20)]^2 + [(5-20)]^2 + [(30-20)]^2 + [(35-20)]^2}{5}}$$

$$\sigma_R = \sqrt{\frac{(-10)^2 + (0)^2 + (-15)^2 + (10)^2 + (15)^2}{5}}$$

$$\sigma_R = \sqrt{\frac{100+0+225+100+225}{5}} = \sqrt{\frac{650}{5}}$$

$$\sigma_R = \sqrt{130} = 11.40$$

(b) Co-efficient of variation: is a measure of risk per unit of expected return. The actual dispersion/variation as determined by standard deviation is called absolute dispersion. Co-efficient of variation converts standard deviation of expected values into relative values to enable comparison of risks associated with assets having different expected values. The coefficient of variation (CV) is computed by dividing the standard deviation of return, σ_R , for an asset by its expected value, $\overline{R}$. Symbolically,

$$CV = \frac{\sigma_R}{\overline{R}}$$

It is generally expressed as a percentage. The larger the CV, the larger the relative risk of the asset. A disadvantage of the coefficient of variation is that it fails to be useful when $\overline{R}$ is close to zero.

Example-2: Security A gives a return of 10% with a dispersion of 3.5%, while security B gives a return of 20% with a dispersion of 5%. Which security is more risky?

Coefficient of Variation for Security A = (3.5/10) = 0.35 or 35% and

Coefficient of Variation for Security B = (5/20) = 0.25 or 25%. Therefore, the security A is more risky in relation to its return.

(c) Covariance:

Covariance describes the nature of relationship between two variables. For instance, it may be the relationship between return on a security and the return on Market portfolio or may be the relationship between two securities etc.

If X and Y are two securities, then the covariance between the two securities is given by the following formula:

$$\text{cov}_{xy} = \frac{\sum_{i=1}^{N}[\ (Xi - \overline{X})(Yi - \overline{Y})]}{N - 1} \qquad \text{where } i = (1, 2, 3,..,n)$$

When two securities are combined, if rates of return of two securities move together, their interactive risk/covariance is said to be positive and vice versa. If rates of return are independent, then the covariance is zero.

Example-3: Following are the returns of two securities X and Y for 5 years:

Year	Return on Security X	*Return on Security Y*
1	5	*4*
2	7	*6*
3	9	*8*
4	11	*10*
5	*13*	*12*

Calculate the covariance between the two securities X and Y.

Solution:

Year	**Ret on Security X**	**Ret. on Security Y**	$Xi - \overline{X}$	$Yi - \overline{Y}$	$(Xi - \overline{X})(Yi - \overline{Y})$
1	5	4	-4	-4	*16*
2	7	6	-2	-2	*4*
3	9	8	0	0	*0*
4	11	10	2	2	*4*
5	13	12	4	4	*16*
Total	***45***	***40***	***0***	***0***	***40***

$$\overline{X} = \frac{5+7+9+11+13}{5} = 9 \qquad \overline{Y} = \frac{4+6+8+10+12}{5} = 8$$

$$\text{cov}_{xy} = \frac{\sum_{i=1}^{N}[\ (Xi - \overline{X})(Yi - \overline{Y})]}{N - 1} = \frac{40}{5-1} = 10$$

Thus the covariance between the two securities X and Y is positive.

5.1.2 Calculation of Beta (β)

The risk of a well diversified portfolio, as we have seen, is represented by its market risk of the securities included in the portfolio. The market risk of a security reflects its sensitivity to market movements. Such sensitivity of a security is called beta (β). As mentioned earlier, the beta for market portfolio is equal to '1' by definition. Beta of one (β=1), indicates that volatility of return on the security is same as the market or index; beta more than one (β>1) indicates that the security has more unavoidable risk or is more volatile than market as a whole, and beta less than one (β<1) indicates that the security has less systematic risk or is less volatile than market.

Given return on security-X which is a dependent variable (R_x) and return on Market portfolio, the independent variable (R_m), Beta for the security X is calculated by following formula:

$$\beta = \frac{\operatorname{cov}(R_x, R_m)}{Var(R_m)}$$

Example-4: Given return on security-X and the return on Market portfolio, calculate beta of the security X:

Year	Ret on Sec. X: (R_x)	Ret. on Market Portfolio: (R_m)	$Rx_i - \overline{Rx}$	$Rm_i - \overline{Rm}$	$(Rx_i - \overline{Rx}) * (Rm_i - \overline{Rm})$	$(Rm_i - \overline{Rm})^2$
1	5	11	-2	2	-4	*4*
2	7	12	0	3	0	*9*
3	-3	-9	-10	-18	180	*324*
4	11	13	4	4	16	*16*
5	15	18	8	9	72	*81*
	35	***45***	***0***	***0***	***264***	***434***

Expected return on Security X:

$$\overline{R_x} = \frac{5+7-3+11+15}{5} = \frac{35}{5} = 7$$

Expected return on Market portfolio:

$$\overline{R_m} = \frac{11+12-9+13+18}{5} = \frac{45}{5} = 9$$

The **covariance** between return on security-X and the return on Market portfolio is:

$$\operatorname{cov}_{xm} = \frac{\sum_{i=1}^{N}[(Rx_i - \overline{Rx})(Rm_i - \overline{Rm})]}{N - 1} = \frac{264}{5-1} = 66$$

Variance of return on the market portfolio (σ^2_m) is calculated:

$$\sigma^2_M = \frac{\sum (Rm_i - \overline{Rm})^2}{N-1} = \frac{434}{5-1} = 108.5$$

Thus, **beta** of security X can be calculated as:

$$\beta_x = \frac{\operatorname{cov}(R_x, R_m)}{Var(R_m)} = \frac{6}{108.5} = 0.61$$

Since Beta of Security X is 0.61 (which is less than 1), we may infer that its return is less volatile than the return on the market portfolio. If the return on market portfolio increases/ decreases by 10% then return on security X would be expected to increase/decrease by 6.1% (0.61*10%).

5.1.3 Relationship between Return and Risk

Capital Asset Pricing Model

Portfolio Theory developed by Harry Markowitz is essentially a normative approach as it prescribes what a rational investor should do. On the other hand, Capital Asset Pricing Model (CAPM) developed by William Sharpe and others is an exercise in positive economics as it is concerned with:

(i) what is the relationship between risk and return for efficient portfolio? And (ii)what is the relationship between risk and return for an individual security?

CAPM assumes that individuals are risk averse. CAPM describes the relationship/trade-off between risk and expected/required return. It explains the behaviour of security prices and provides mechanism to assess the impact of an investment in a proposed security on risks and return of investors' overall portfolio. The CAPM provides framework for understanding the basic risk-return trade-offs involved in various types of investment decisions. It enables drawing certain implications about risk and the size of risk premiums necessary to compensate for bearing risks.

Using beta (β) as the measure of non-diversifiable risk, the CAPM is used to define the required return on a security according to the following equation:

$$R_S = R_f + \beta_s (R_m - R_f)$$

Where:

R_s = the return required on the investment

R_f = the return that can be earned on a risk-free investment (e.g. Treasury bill)

R_m = the average return on all securities (e.g., S&P 500 Stock Index)

β_s = the security's beta (systematic) risk

It is easy to see that the required return for a given security increases with increases in its beta.

Application of the CAPM can be demonstrated:

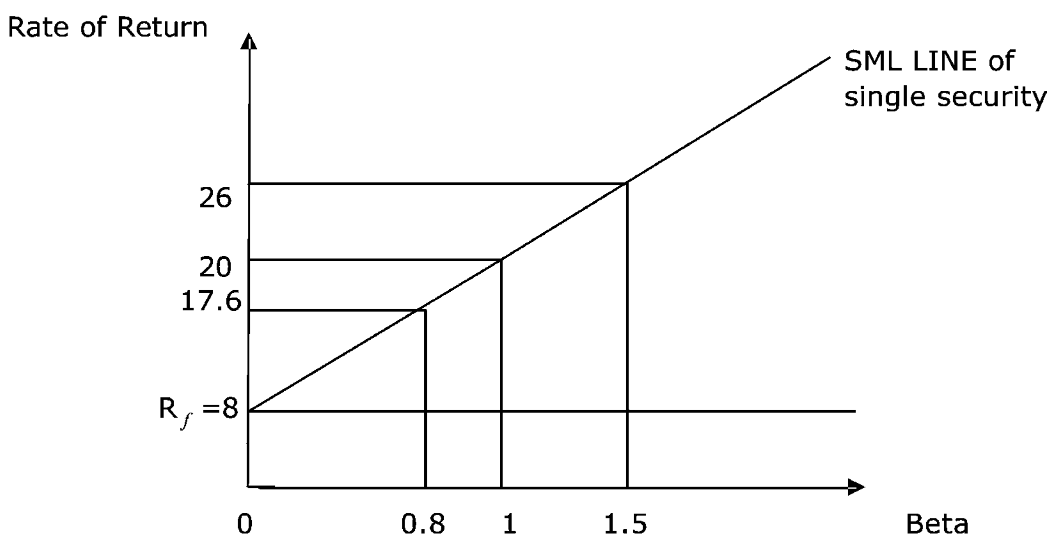
Example-5: Assume that a security with a beta of 1.5 is being considered for investment at a time when the risk-free rate of return is 8 % p.a. and the market return is expected to be 20% p.a. The expected/required return can be calculated by substituting the given data into the CAPM equation:

$$R_s = 8\% + [1.50 * (20\% - 8\%)]$$
$$= 8\% + [1.50 * 12\%]$$
$$= 8\% + 18\% = 26\%$$

The investor should, therefore, require a 26 percent return on this investment, a compensation for the non-diversifiable risk assumed, given the security's beta of 1.5. Such security is *aggressive* security. If the beta is 1.00, then the security is considered as *neutral* and the required return would be 20 percent [8%+ [1.00*(20%-8%)]: and if the beta had been lower, say 0.80, then the security is considered as a defensive security and the required return would be 17.6 percent [8%+ [0.80* (20%-8%)]. Thus, CAPM reflects a positive mathematical relationship between risk and return, since the higher the risk (beta) higher is the required return.

Security Market Line:

In order to define Security Market Line, Beta is placed on horizontal axis and the rate of return is on vertical axis. The two parameters defining security market line are the intercept (R_f) and the slope [$E(R_m) - R_f$]. The intercept represents the nominal rate of return on the risk-free security. It expected to be equal to the risk free rate of return plus the inflation rate. The Example-5 and the variations in the required return corresponding to variations in beta are reflected in the following diagram of **Security Market Line**:



5.1.4 Return and Risk of a portfolio

Investors prefer investing in a portfolio of assets (combination of two or more securities/ assets) rather than investing in a single asset. The expected return on a portfolio is a weighted average of the expected returns of individual securities or assets comprising the portfolio. The weights are equal to the proportion to amount invested in each security to the total amount.

For example, when a portfolio consists of two securities, its expected return is:

$$\overline{R}_P = w_1\overline{R}_1 + (1 - w_1)\overline{R}_2$$

where,

$\overline{R}_P$ = Expected return on a portfolio

w_1 = proportion of portfolio invested in security 1

(1- w_1) = proportion of portfolio invested in security 2.

In general, expected return on a portfolio consisting of 'n' securities is expressed as:

$$\overline{R}_P = \sum_{i=1}^{n} w_i \overline{R}_i$$

Example-6: What is the portfolio return, if expected returns for the three assets such as A, B, and C, are 20%, 15% and 10% respectively, assuming that the amount of investment made in these assets are Rs. 10,000, Rs. 20,000, and Rs. 30,000 respectively.

Weights for each of the assets A, B, and C respectively may be calculated as follows:

Total Amount invested in the portfolio of 3 assets (A, B, and C) = Rs. 10,000 + Rs. 20,000 + Rs.30,000 = Rs. 60,000.

Weight for the asset A = 10000/60000 = 1/6 = 0.1667

Weight for the asset B = 20000/60000 = 1/3 = 0.3333

Weight for the asset C = 30000/60000 = 1/2 = 0.5

Given expected returns for the three assets A, B, and C, as 20%, 15% and 10% respectively, Returns on Portfolio

= (0.1667*0.20)+(0.3333*0.15)+(0.5*0.10)

= 0.13334*100 =13.33%

<u>Measurement of Risk for a portfolio</u>

According to the Modern Portfolio Theory, *while the expected return of a portfolio is a weighted average of the expected returns of individual securities (or assets) included in the portfolio, the risk of a portfolio measured by variance(or standard deviation) is* ***not*** *equal to* the *weighted average of the risk of individual securities included in the portfolio.* The risk of a portfolio not only depends on variance/risk of individual securities but also on co-variances between the returns on the individual securities.

Given the covariance between the returns on the individual securities, the portfolio variance consisting of 'n' securities is calculated as:

$$\text{Var}(R_p) = \sigma_P^2 = \sum_{a=1}^{n} \sum_{b=1}^{n} w_a w_b Cov(R_a, R_b) \qquad \text{........... (2.1)}$$

Since the covariance between two variables is the product of their standard deviations multiplied by their co-efficient of correlation, covariance between the returns on two securities, [$Cov(R_a, R_b)$] may be expressed as:

$$Cov(R_a, R_b) = \rho_{ab}\sigma_a\sigma_b$$

where,

ρ_{ab} = coefficient of correlation between Ra and R_b

σ_a = standard deviation of Ra

σ_b = standard deviation of R_b

Hence, in case co-variances are not known and correlation co-efficients are given, the Portfolio variance (σ_p^2) can be calculated with following formula:

$$\sigma_p^2 = \sum_{a=1}^{n} \sum_{b=1}^{n} w_a w_b \rho_{ab} \sigma_a \sigma_b \qquad \text{........... (2.1a)}$$

Portfolio with Two Securities:

Assuming a portfolio consisting of two securities (i.e. n=2), Portfolio Variance for the two securities is calculated by substituting n=2 in the formula (2.1) as follows:

Var (R_p) =

$$\sigma_P^2 = w_1 w_1 \rho_{1.1}\sigma_1\sigma_1 + w_1 w_2 \rho_{1.2}\sigma_1\sigma_2 + w_2 w_1 \rho_{2.1}\sigma_2\sigma_1 + w_2 w_2 \rho_{2.2}\sigma_2\sigma_2 \qquad \text{.... (2.2)}$$

The first and the last terms can be simplified. Clearly the return on a security is perfectly (positively) correlated with itself. Thus, $\rho_{1.1}$ =1, as does $\rho_{2.2}$ =1. Because $\rho_{2.1} = \rho_{1.2}$, the second terms can be combined. The result is:

Portfolio Variance, $Var(R_P) = \sigma_P^2 = w_1^2\sigma_1^2 + w_2^2\sigma_2^2 + 2\, w_1 w_2 \rho_{1.2}\, \sigma_1\sigma_2$

OR substituting $\rho_{1.2}\, \sigma_1\sigma_2$ by Cov. (1, 2), we get,

$Var(R_P) = \sigma_P^2 = w_1^2\sigma_1^2 + w_2^2\sigma_2^2 + 2\, w_1 w_2 \text{Cov}\,(1, 2)$

Portfolio Risk (standard deviation) $\sigma_P = \sqrt{Porfolio\,Variance}$

Example-7: The standard deviation of the *two securities* (a, b) are 20% and 10% respectively. The two securities in the portfolio are assigned equal weights. If their correlation coefficient is +1, 0 or −1 what is the portfolio risk?

(i) When the correlation is +1

Portfolio Variance = $0.5^2*0.2^2+ 0.5^2*0.10^2+2 *0.5 *0.5*$ Cov (a, b)

= 0.25*0.04 +0.25*0.01+2 *0.25 *1*0.2*0.1

= 0.0100 +0.0025 +2 *0.25 *1*0.02

= 0.0100 +0.0025 +0.0100

= 0.0225

Portfolio Risk (Standard Deviation) = $\sqrt{PorfolioVariance}$ = 0.15

(ii) When the correlation is 0

Portfolio Variance = $0.5^2*0.2^2+ 0.5^2*0.10^2+2 *0.5 *0.5*$ Cov (a, b)

= 0.0100 +0.0025 + 0

=0.0125

Portfolio Risk (Standard Deviation) = $\sqrt{PorfolioVariance}$ = 0.1118

(iii) When the correlation is -1

Portfolio Variance = $0.5^2*0.2^2+ 0.5^2*0.10^2+2 *0.5 *0.5*$ Cov (a, b)

= 0.0100 +0.0025 + (-0.0100)

= 0.0025

Portfolio Risk (Standard Deviation) = $\sqrt{PorfolioVariance}$ = 0.05

Portfolio with Three Securities:

Example-8:

Consider the following three securities and the relevant data on each:

	Security1	Security2	Security3
Expected return	10	12	8
Standard deviation	10	15	5
Correction coefficients:			
Stocks 1, 2 = .3			
2, 3 = .4			
1, 3 = .5			

The proportion (weights) assigned to each of the securities as security 1= 0.2; security 2=0.4; and security 3=0.4. What is portfolio risk?

Using the formula for portfolio risk (equation 2.1) and expanding it for N = 3, we get:

$$\sigma_p^2 = W_1^2\sigma_1^2 + W_2^2\sigma_2^2 + W_3^2\sigma_3^2 + 2W_1W_2\rho_{1.2}\sigma_1\sigma_2 + 2W_3W_2\rho_{2.3}\sigma_3\sigma_2 + 2W_3W_1\rho_{1.3}\sigma_3\sigma_1$$

5.2 FUNDAMENTAL ANALYSIS

Fundamental analysis is an examination of future earnings potential of a company, by looking into various factors that impact the performance of the company. The prime objective of a fundamental analysis is to value the stock and accordingly buy and sell the stocks on the basis of its valuation in the market. The fundamental analysis consists of economic, industry and company analysis. This approach is sometimes referred to as a top-down method of analysis.

5.2.1 Valuation of a Stock

Dividend Discount Model

According to Dividend Discount Model (DDM), the value of a stock is equal to the present value of all future cash flows in the form of dividends plus the present value of the sale price expected when the equity share is sold. The DDM assumes that the constant amount of dividend is paid annually and that the first dividend is received one year after the equity share is bought.

If investors expect to hold an equity share for one year, then the current price of the share can be calculated as:

$$P_0 = \frac{D_1}{(1+r)} + \frac{P_1}{(1+r)}$$

Where

P_0 = Current price/market price of the share today

D_1 = Dividend expected at end of year 1

r = required rate of return/discount rate

P_1 = market price/expected price of share at end of year 1

Illustration-1:

In future, a company is expected to consistently pay dividend of 15% p.a. on its share par value of Rs. 100. If the investors' required rate of return on the share is 12%, What would be the current theoretical value (sell price) of the share now?

Given, Dividend = D_1 = Rs. 15; r = 12%; P_1 = 100 the current price (P_0) will be:

$$P_0 = \frac{D_1}{(1+r)} + \frac{P_1}{(1+r)} = \frac{15}{1.12} + \frac{100}{1.12}$$ = Rs. 102.68

Constant Growth DDM:

Constant Growth DDM presumes that the dividend per share is growing at constant rate (g). The value of the share (P_0) can be calculated as:

$$P_0 = \frac{D_1}{r-g}$$

Where,

D_1 = Dividend per share at the end of first year.

r = Expected rate of return/Discount rate

g = Constant growth rate

Illustration-2: In future, company is expected to pay dividend of 15% p.a with growth rate of 5% on its share par value of Rs. 100. If the required rate of return on the share is 12%. What is the theoretical value of the share?

$$P_0 = \frac{15}{(0.12-0.05)} = \frac{15}{0.07} = Rs.214.29$$

5.3 FINANCIAL STATEMENT ANALYSIS

Financial statement consists of Balance Sheet, Profit and Loss Account, Sources and Uses of Funds Statements, and Auditors' Notes to the Financial statements. The Balance sheet shows the financial position of the firm at a particular point of time. The profit and loss account (Income Statement) shows the financial performance of the firm over a period of time. The sources and uses of funds statements reflect the flow of funds through the business during a given period of time.

5.3.1 Balance Sheet

The balance sheet of a company, according to the Companies Act, should be either in account form or the report form.

Balance Sheet: Account Form

Liabilities	**Assets**
Share Capital	Fixed Assets
Reserves and Surplus	Investments
Secured loans	Current Assets, loans and Advances
Unsecured loans	Miscellaneous expenditure
Current liabilities and provisions	

Liabilities:

- Share Capital: Share capital has been divided into equity capital and preference capital. The share capital represents the contribution of owners of the company.

Equity capital does not have fixed rate of dividend. The preference capital represents contribution of preference shareholders and has fixed rate of dividend.

- Reserves and Surplus: The reserves and surpluses are the profits retained in the company. The reserves can be divided into revenue reserves and capital reserves. Revenue reserves represent accumulated retained earnings from the profits of business operations. Capital reserves are those gained which are not related to business operations. The premium on issue of shares and gain on revaluation of assets are examples of the capital reserves.
- Secured and Unsecured Loans: Secured loans are the borrowings against the security. They are in the form of debentures, loans from financial institutions and loans from commercial banks. The unsecured loans are the borrowings without a specific security. They are fixed deposits, loans and advances from promoters, inter-corporate borrowings, and unsecured loans from the banks.
- Current Liabilities and Provisions: They are amounts due to the suppliers of goods and services brought on credit, advances payments received, accrued expenses, unclaimed dividend, provisions for taxes, dividends, gratuity, pensions, etc.

Assets:

- Fixed Assets: These assets are acquired for long-terms and are used for business operation, but not meant for resale. The land and buildings, plant, machinery, patents, and copyrights are the fixed assets.
- Investments: The investments are the financial securities either for long-term or short-term. The incomes and gains from the investments is not from the business operations.
- Current Assets, Loans, and Advances: This consists of cash and other resources which can be converted into cash during the business operation. Current assets are held for a short-term period. The current assets are cash, debtors, inventories, loans and advances, and pre-paid expenses.
- Miscellaneous Expenditures and Losses: The miscellaneous expenditures represent certain outlays such as preliminary expenses and pre-operative expenses not written off. Though loss indicates a decrease in the owners' equity, the share capital can not be reduced with loss. Instead, Share capital and losses are shown separately on the liabilities side and assets side of the balance sheet.

Balance Sheet: Report Form

I. **Sources of Funds**

1. Shareholders' Funds
   - (a) Share Capital
   - (b) Reserves & surplus
2. Loan Funds
   - (a) Secured loans
   - (b) Unsecured loans

II. **Application of Funds**

- (i) Fixed Assets
- (ii) Investments
- (iii) Current Assets, loans and advances
  Less: Current liabilities and provisions
  Net current assets
- (iv) Miscellaneous expenditure and losses

5.3.2 Profit and Loss Account

Profit and Loss account is the second major statement of financial information. It indicates the revenues and expenses during particular period of time. The period of time is an accounting period/year, April-March. The profit and loss account can be presented broadly into two forms: (i) usual account form and (ii) step form. The accounting report summarizes the revenue items, the expense items, and the difference between them (net income) for an accounting period.

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 analyse such statements. The most popular tool is the Ratio Analysis.

5.3.3 Ratio Analysis

Financial ratio is a quantitative relationship between two items/variables. Financial ratios can be broadly classified into three groups: (I) Liquidity ratios, (II) Leverage/Capital structure ratio, and (III) Profitability ratios.

(I) Liquidity ratios

Liquidity refers to the ability of a firm to meet its financial obligations in the short-term which is less than a year. Certain ratios which indicate the liquidity of a firm are: (i) Current Ratio,

(ii) Acid Test Ratio, (iii) Turnover Ratios. It is based upon the relationship between current assets and current liabilities.

(i) Current ratio $= \dfrac{Current.Assets}{Current.Liabilities}$

The current ratio measures the ability of the firm to meet its current liabilities from the current assets. Higher the current ratio, greater the short-term solvency (i.e. larger is the amount of rupees available per rupee of liability).

(ii) Acid-test Ratio $= \dfrac{Quick.Assets}{Current.Liabilities}$

Quick assets are defined as current assets excluding inventories and prepaid expenses. The acid-test ratio is a measurement of firm's ability to convert its current assets quickly into cash in order to meet its current liabilities. Generally speaking 1:1 ratio is considered to be satisfactory.

(iii) Turnover Ratios:

Turnover ratios measure how quickly certain current assets are converted into cash or how efficiently the assets are employed by a firm. The important turnover ratios are:

- Inventory Turnover Ratio,
- Debtors Turnover Ratio,
- Average Collection Period,
- Fixed Assets Turnover and
- Total Assets Turnover

Inventory Turnover Ratio $= \dfrac{Cost\ of\ Goods\ Sold}{Average\ Inventoty}$

Where, the cost of goods sold means sales minus gross profit. 'Average Inventory' refers to simple average of opening and closing inventory. The inventory turnover ratio tells the efficiency of inventory management. Higher the ratio, more the efficient of inventory management.

Debtors' Turnover Ratio $= \dfrac{NetCreditSales}{AverageAccounts\,\mathrm{Re}\,ceivable(Debtors)}$

The ratio shows how many times accounts receivable (debtors) turn over during the year. If the figure for net credit sales is not available, then net sales figure is to be used. Higher the debtors turnover, the greater the efficiency of credit management.

Average Collection Period $= \dfrac{AverageDebtors}{AverageDailyCreditSales}$

Average Collection Period represents the number of days' worth credit sales that is locked in debtors (accounts receivable).

Please note that the *Average Collection Period* and the *Accounts Receivable (Debtors) Turnover* are related as follows:

Average Collection Period = $\frac{365\, Days}{DebtorsTurnover}$

Fixed Assets turnover ratio measures sales per rupee of investment in fixed assets. In other words, how efficiently fixed assets are employed. Higher ratio is preferred. It is calculated as follows:

Fixed Assets turnover ratio = $\frac{Net.Sales}{NetFixedAssets}$

Total Assets turnover ratio measures how efficiently all types of assets are employed.

Total Assets turnover ratio = $\frac{Net.Sales}{AverageTotalAssets}$

(II) Leverage/Capital structure ratios

Long term financial strength or soundness of a firm is measured in terms of its ability to pay interest regularly or repay principal on due dates or at the time of maturity. Such long term solvency of a firm can be judged by using leverage or capital structure ratios. Broadly there are two sets of ratios: First, the ratios based on the relationship between borrowed funds and owner’s capital which are computed from the balance sheet. Some such ratios are: Debt to Equity and Debt to Asset ratios. The second set of ratios which are calculated from Profit and Loss Account are: The interest coverage ratio and debt service coverage ratio are coverage ratio for leverage risk.

(i) Debt-Equity ratio reflects relative contributions of creditors and owners to finance the business.

Debt-Equity ratio = $\frac{Debt}{Equity}$

The desirable/ ideal proportion of the two components (high or low ratio) varies from industry to industry.

(ii) Debt-Asset Ratio: Total debt comprises of long term debt plus current liabilities. The total assets comprise of permanent capital plus current liabilities.

Debt-Asset Ratio = $\frac{Total\ Debt}{Total\ Assets}$

The second set or the coverage ratios measure the relationship between proceeds from the operations of the firm and the claims of outsiders.

(iii) Interest Coverage ratio = $\frac{Earnings\ Before\ Interest\ and\ Taxes}{Interest}$

Higher the interest coverage ratio better is the firm's ability to meet its interest burden. The lenders use this ratio to assess debt servicing capacity of a firm.

(iv)Debt Service Coverage Ratio (DSCR) is a more comprehensive and apt to compute debt service capacity of a firm. Financial institutions calculate the average DSCR for the period during which the term loan for the project is repayable. The Debt Service Coverage Ratio is defined as follows:

$$\frac{\text{Profit.after.tax} + \text{Depreciation} + \text{OtherNoncashExpenditure} + \text{Interest.on.term.loan}}{\text{Interest on term loan} + \text{Repayment of term loan}}$$

(III) Profitability ratios

Profitability and operating/management efficiency of a firm is judged mainly by the following profitability ratios:

(i) Gross Profit Ratio = $\frac{\text{Gross Profit}}{\text{Net Sales}}$

(ii) Net Profit Ratio = $\frac{\text{Net Profit}}{\text{Net Sales}}$

Some of the profitability ratios related to investments are:

(iii) Return on Total Assets = $\frac{\text{Net Income}}{\text{Average Total Assets}}$

(iv)Return on Capital Employed = $\frac{\text{Net Profit}}{\text{Capital Employed}}$

(Here, Capital Employed = Fixed Assets + Current Assets - Current Liabilities)

Return on Shareholders' Equity = $\frac{\text{Net Income After Tax}}{\text{Average Total Shareholders' Equity or NetWorth}}$

(Net worth includes Shareholders' equity capital plus reserves and surplus)

A common (equity) shareholder has only a residual claim on profits and assets of a firm, i.e., only after claims of creditors and preference shareholders are fully met, the equity shareholders receive a distribution of profits or assets on liquidation. A measure of his well being is reflected by return on equity. There are several other measures to calculate return on shareholders' equity:

(i) Earnings Per Share (EPS): EPS measures the profit available to the equity shareholders per share, that is, the amount that they can get on every share held. It is calculated by dividing the profits available to the shareholders by number of outstanding shares. The profits available to the ordinary shareholders are arrived at by net profits after taxes and preference dividend.

It indicates the value of equity in the market.

$$EPS = \frac{Net\,Profit}{Number\ of\ Ordinary\ Shares\ Outstanding}$$

(ii) Price-earnings ratios = P/E Ratio = $\frac{Market\ Price\ per\ Share}{EPS}$

(iii) Cash Earnings per share (CPS/CEPS):

$$CPS/CEPS = \frac{Net\ Profit - Preference\ Dividend + Depreciation}{Number\ of\ Equity\ Shares}$$

Illustration:

Balance Sheet of ABC Co. Ltd. as on March 31, 2006

(Rs. in Crore)

Liabilities	Amount	Assets	Amount	
Share Capital (1,00,00,000 equity shares of Rs.10 each)	16.00	Fixed Assets (net)		60.00
Reserves & Surplus	22.00	Current Assets:		23.40
Secured Loans	21.00	Cash & Bank	0.20	
Unsecured Loans	25.00	Debtors	11.80	
Current Liabilities & Provisions	16.00	Inventories	10.60	
		Pre-paid expenses	0.80	
		Investments		16.60
Total	**100**	**Total**		**100**

Profit & Loss Account of ABC Co. Ltd.
for the year ending on March 31, 2006:

Particulars	Amount	Particulars	Amount
Opening Stock	13.00	Sales (net)	105.00
Purchases	69.00	Closing Stock	15.00
Wages and Salaries	12.00		
Other Mfg. Expenses	10.00		
Gross Profit	16.00		
Total	**120.00**	**Total**	**120.00**
Administrative and Personnel Expenses	1.50	Gross Profit	16.00
Selling and Distribution Expenses	2.00		
Depreciation	2.50		
Interest	1.00		
Net Profit	9.00		
Total	**16.00**	**Total**	**16.00**
Income Tax	4.00	Net Profit	9.00
Equity Dividend	3.00		
Retained Earning	2.00		
Total	**9.00**	**Total**	**9.00**

Market price per equity share - Rs. 20.00

Current Ratio = Current Assets / Current Liabilities
= 23.40/16.00 = 1.46

Quick Ratio = Quick Assets / Current Liabilities
=Current Assets-(inventory + prepaid expenses)/Current Liabilities
= [23.40-(10.60+0.8)]/16.00 = 12.00/16.00 = 0.75

Inventory Turnover Ratio = Cost of goods sold/Average Inventory
= (Net Sales-Gross Profit)/ [(opening stock + closing stock)/2]
= (105-16)/ [(15+13)/2] = 89/14 = 6.36

Debtors Turnover Ratio= Net Sales/Average account receivables (Debtors)
=105/11.80 =8.8983

Average Collection period = 365 days / Debtors turnover
= 365 days/8.8983 = 41 days

Fixed Assets Turnover ratio = Net Sales / Net Fixed Assets
= 105/60 = 1.75

Debt to Equity Ratio = Debt/ Equity
= (21.00+25.00)/(16.00+22.00) = 46/38 = 1.21

Gross Profit Ratio = Gross Profit/Net Sales
= 16.00/105.00 = 0.15238 or 15.24%

Net Profit Ratio = Net Profit / Net Sales
= 9/105.00 = 0.0857 or 8.57 %

Return on Shareholders' Equity = Net Profit after tax/Net worth
= 5.00/(16.00+22.00) =0.13157 or 13.16%

5.4 COST OF CAPITAL

Capital like any other factor of production involves a cost. The cost of capital is an important element in capital expenditure management. The cost of capital of a company is the average cost of various components of capital of all long term sources of finance. Understanding the concept of the Cost of capital is very helpful in making investment and financing decision. For e.g. if a company is in need of Rs.30 crore, cost of capital will be the major factor determining whether the same should be financed by debt or equity capital. There are three types of capital costs, namely, (i) Cost of Debt, (ii) Cost of preferred Shares and (iii) Cost of Equity.

5.4.1 Cost of Debt

The debt capital can be broadly classified as Perpetual Debt Capital or redeemable debt capital. The cost of perpetual debt capital (Kdp) is calculated by

Kdp= $\frac{I}{SV}(1-tx)$

Where

I= Annual Interest Rate

SV= Sales proceed of the bond/debenture

tx = tax rate

Kdp is the tax adjusted cost of capital (i.e. the cost of debt is on after tax basis). To calculate before tax cost of debt (1-tx) will not be considered.

The cost of debt is generally the lowest among all sources partly because the risk involved is low but mainly because interest paid on debt is tax deductible.

5.4.2 Cost of Preference Shares

The preference capital can be broadly classified as perpetual preference capital or redeemable preference capital. The cost of perpetual preference capital (Kpsp) is calculated by

$$\text{Kpsp}= \frac{d(1+tx)}{p(1-f)}$$

Where

d = constant annual dividend

p = expected sale price of preference share

f = floatation cost

tx = Tax on preference dividend

Kpsp is the tax adjusted cost of preference capital. To calculate before tax cost of preference capital (1+tx) will not be considered.

It may be noted that while assessing tax liability, the preference dividend paid to the preference shareholders is not allowed as a deductible item of expense.

5.4.3 Cost of Equity

There are two approaches to compute cost of equity capital: (1) Dividend growth Model approach which is discussed in this section and (2) Capital Asset Pricing Model which is discussed in section 2.1.3.

Dividend growth Model approach: Dividend growth Model approach assumes that the price of equity stock depends ultimately on the dividend expected from it.

Dividend Growth Model:

$$K_e = \frac{D}{P_e} + g$$

Where

Ke = Cost of Equity Capital

D = Dividend

g = rate at which dividends are expected to grow

P_e = Price of equity shares

Example-1:

Stock price of XYZ Ltd. is trading at Rs. 66. The firm is expected to declare dividend of Rs. 7 per share and is expected to grow at rate of 10 per cent per year. What is the cost of equity under dividend growth model?

$K_e = \dfrac{D}{P_e} + g$

K_e = (7/66) + .10

= .10606 +.10

= .20606 x 100 = 20.61%

5.4.4 The Weighted Average Cost of Capital

The weighted average cost of capital is the weighted average of the after-tax costs of each of the sources of capital used by a firm to finance a project where the weights reflect the proportion of total financing raised from each source.

$K_{wacc} = W_d\ K_d\ (1- T_c) + W_{ps}\ K_{ps} + W_e\ K_e$

W = Weight
Kd = cost of Debt Capital
Kps = Cost of Preference Share Capital
Ke = Cost of Equity capital

Example-2:

What is the average cost of capital of XYZ Ltd.?, if the cost of capital from each source such as debt, preferred stock and equity is 7%, 16% and 23% respectively and being financed with 40% from the debt, 10% from the preferred stock and 50% from the equity.

K_{wacc} = 40% *7% + 10%*16% + 50%*23% = 15.9%

5.5 CAPITAL STRUCTURE

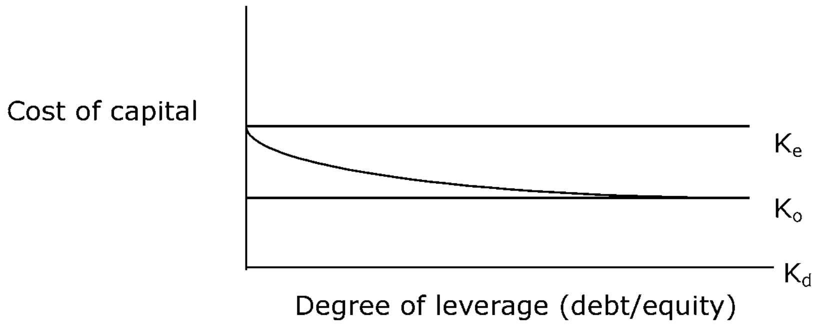
The objective of the firm is to maximize shareholder's wealth or in other words the value of the firm. The main sources of finance for a firm are equity and debt. The question arises is what should be the proportion of the equity and debt so that the shareholders wealth is maximized. It may be noted that the value of the firm and the cost of capital is inversely related i.e. the value of the firm is maximized when the cost of capital is minimized and vice versa.

5.5.1 Net Income Approach

Under the net income approach, the cost of debt capital (k_d) and the cost of equity capital (k_e) remain unchanged, when the degree of leverage varies meaning

$$k_o = k_d\left(\frac{B}{B+S}\right) + k_e\left(\frac{S}{B+S}\right)$$

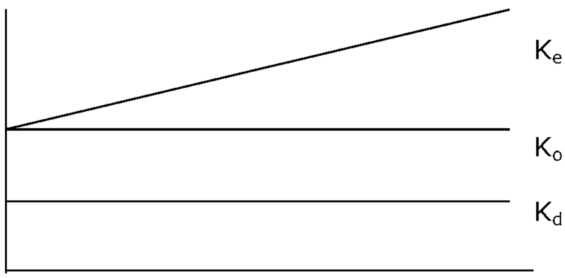
Where K_o = Overall Capitalisation rate for the firm
K_d = Cost of Debt Capital
K_e = Cost of Equity Capital
B = Market value of the Debt
S = Market value of the Equity



As leverage increases, the overall cost of capital decreases, because the weight of debt capital which is relatively a cheaper means of finance in the capital structure increases.

5.5.2 Net Operating Income Approach

Under net operating income approach, the overall capitalization rate and the cost of debt remains constant for all degrees of leverage. The reason for the same being that the market capitalizes the firm as a whole at a rate which is independent of its debt-equity ratio.



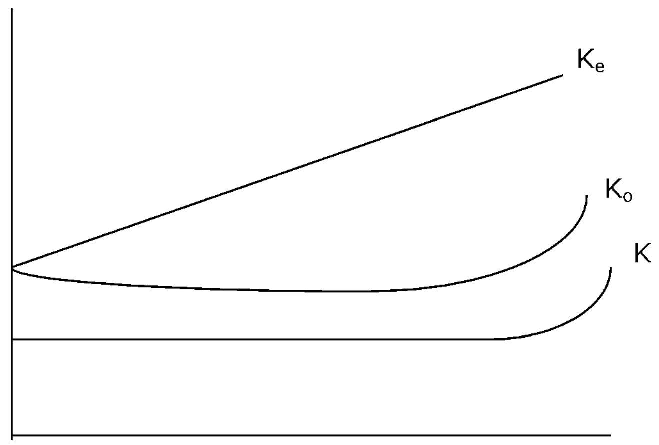
The market value of the firm depends on its net operating income and business risk and not on change in degree of leverage. An increase in use of debt fund is offset by the higher equity capitalization rate. This approach was advocated by David Durand. Modigliani and Miller advanced the proposition that the cost of capital of a firm is independent of its capital structure.

5.5.3 Traditional Approach

The Traditional approach is the midway between the Net Income and Net Operating Income Approaches. The crux of the traditional view relating to leverage and valuation is that through proper use of debt and equity proportions, a firm can increase its value and thereby reduce the overall cost of capital. The rational behind the same is that debt is a comparatively cheaper source of funds to equity.

The main propositions of the traditional approach are:

- o The Cost of debt capital remains constant up to a certain degree of leverage but rises afterwards at an increasing rate.
- o The Cost of equity capital remains constant or rises only gradually up to a certain degree of leverage and rises sharply afterwards
- o The average cost of capital decreases up to a certain point, remains constant for moderate increase in leverage afterwards, and rises beyond certain point.



5.5.4 Modigliani and Miller Approach

The Modigliani and Miller (MM) thesis relating to the relationship between the capital structure, cost of capital and valuation is similar to the NOI approach. The MM approach maintains that the weighted average cost of capital does not change with the change in cost of capital (or degree of leverage). The basic propositions of the theory are:

1. The overall cost of capital and the value of the firm are independent of its capital structure. The cost of capital and the value of the firm are constant for all degrees of leverage. The total value is given by capitalizing the expected stream of operating earnings at a discount rate appropriate to its risk class.
2. The expected return on equity is equal to the expected rate of return on assets plus a premium. The premium is equal to the debt-equity ratio times the difference between the expected return on assets and the expected return on debt.

3. The cut off rate (of expected return) for investment purposes is completely independent of the way in which the investments are financed.

The MM theory assumes that:

1. The Capital Markets are perfect. The information is perfect and is readily available to the investors. Securities are infinitely divisible. Investors are free to buy and sell. There are no transaction costs. Investors are rational.
2. The expectations of the investors about the future operating earnings are identical.
3. The business risk is equal among all firms within similar operating environment.
4. Dividend payout ratio is 100 percent (The entire earnings are distributed as dividend)
5. There are no taxes.

5.6 CAPITAL BUDGETING

Capital expenditures typically involve a current or future outlay of funds in expectation of stream of benefits extending far in future. The basic characteristics of the same are: (a) They have long term consequences. (b) They involve substantial outlays (c) They may not be reversed. Capital budgeting decisions are of utmost importance in financial decision making as they affect the profitability and competitive position of the firm.

Capital budgeting involves the following phases.

- Identification of projects
- Assembling of proposed projects
- Decision making
- Preparation of capital budget and appropriations
- Implementation
- Performance evaluation of projects

In order to evaluate the project the following five methods are adopted.

- Net Present Value
- Benefit-Cost Ratio
- Internal rate of return
- Payback period
- Accounting rate of return

5.6.1 Net Present Value

Net present value of a project is the sum of the present values of all the cash flows associated with it. The cash flows can be positive or negative.

$$NPV = \frac{CF_0}{(1+r)^0} + \frac{CF_1}{(1+r)^1} \ldots\ldots \frac{CF_n}{(1+r)^n} = \sum_{t=0}^{n} \frac{CF_t}{(1+r)^t}$$

Where NPV = Net present value

CF = Cash flow occurring at the end of the year t (t=0, 1…, n)

N = Life of the Project

r = Discount rate or required rate of return

The project is feasible or acceptable if the net present value is positive. The project is rejected if the net present value is negative. It is indifferent, if the net present value is zero. Similarly if there are various projects to be evaluated the project which has the highest NPV will get the highest rank and the project that has the lowest NPV will get the lowest rank

Example-1:

A firm requires an initial cash outlay of Rs. 10000, yields the following set of annual cash flows. The required rate of return of the firm is 10% p.a. What is its Net Present Value of the firm?

Year	**After-tax Cash flows**
1	Rs.4000
2	Rs.3000
3	Rs.3000
4	Rs.1000
5	Rs. 2000

Solution

Year	**Cash flows**	**Present Value Factor:** $1/(1+r)^t$	**Present Value(2)*(3)**
(1)	**(2)**	**(3)**	**(4)**
0	-10000	1	-10000
1	4000	0.909091	3636.364
2	3000	0.826446	2479.339
3	3000	0.751315	2253.944
4	1000	0.683013	683.0135
5	2000	0.620921	1241.843
Net Present Value: 294.503			

The *Advantages* of the NPV method are:

1. It takes into account the time value of money with changing discount rate.
2. It can be used to evaluate mutually exclusive projects.
3. It takes into consideration the total benefits arising out of the project over its lifetime.

The *disadvantages* being:

1. It doest not take into account the life of the project and may not give dependable result for projects having different lives.
2. The NPV method is an absolute method and may not give dependable results in case the projects have different outlays.

5.6.2 Benefit-Cost Ratio

Cost Benefit Ratio (BCR), also known as profitability index (PI), measures the present value of the returns per rupee invested.
BCR= Present value of inflows/Initial Investments
PI= Present value of cash inflows/Present value of cash outflows

Using the BCR the project may be accepted when BCR is greater than 1 and may be rejected if the BCR is less than 1. When BCR equals 1 the firm is indifferent to the project. PI is the superior method than BCR in terms as it can be used in projects where outflows occur beyond the current period.

Example-2:

A firm requires an initial cash outlay of Rs.10000, yields the following set of annual cash flows. The required rate of return of the firm is 10% p.a. What is its Benefit-Cost Ratio?

Using the same illustration as in NPV calculation, where NPV=294.503, we can calculate BCR as follows:

BCR = Present value of inflows/Initial Investments
= 294.503/10000 = 0.029

Since the BCR is less than 1 it is better to reject the project.

Advantages

1. BCR method is superior to NPV method as it evaluates the project in relative rather than in absolute terms.
2. Two projects having different cash outlays and lifetime can be evaluated.
3. It also takes into account the important elements of capital budgeting such as time value of money, totality of the benefits and so on.

5.6.3 Internal Rate of Return

Internal rate of return (IRR) is the discount rate which makes its net present value equal to zero. It is the discount rate which equates the present value of the future benefits with the initial outlay.

$$0 = \frac{CF_0}{(1+r)^0} + \frac{CF_1}{(1+r)^1} \ldots\ldots \frac{CF_n}{(1+r)^n} = \sum_{t=0}^{n} \frac{CF_t}{(1+r)^t}$$

Where, CF = Cash flow

r = Discount rate or required rate of return

n = Life of the Project

It may be noted that the discount rate is not known while calculating the IRR. In IRR calculation the NPV is set to zero to determine the discount rate that satisfies the condition. The calculation of r is a trial and error process. Different values are tried as r till the condition is satisfied.

Example-3:

A firm requires an initial cash outlay of Rs. 10000, yields the following set of annual cash flows. What is the required rate of return of the firm for these cash flows?

Year	After-tax Cash flows
1	Rs.4000
2	Rs.3000
3	Rs.3000
4	Rs.1000
5	Rs. 2000

Solution

Year	Cash flows	Present Value Factor is assumed to be 11.3675%	Present Value(2)*(3)
(1)	(2)	(3)	(4)
0	-10000	1	-10000
1	4000	0.897928	3591.712
2	3000	0.806275	2418.824
3	3000	0.723977	2171.93
4	1000	0.650079	650.079
5	2000	0.583724	1167.448
		Net Present Value:	-0.0063

Therefore, the Internal Rate of Return is 11.367%

Advantage of the IRR method is apart from taking into account the important elements of capital budgeting such as time value of money, totality of the benefits and so on, it does not take use the concept of required return or the cost of the capital. It itself provides a rate of return which is indicative of profitability of the proposal.

The disadvantages being:

1. It involves tedious calculations.
2. IRR may not give dependable results while evaluating mutually exclusive projects as the project with Highest IRR will be selected. However in practice it may not turned out to be the same

3. IRR assumes that all intermediate cash flows are reinvested at IRR. This is not the case in practice

5.6.4 Payback Period

The payback period is the number of years required to recover the initial project cost. Shorter the payback period, more desirable is the project.

Payback period = Number of years required to equal cash flows with initial project cost.

Example-4:

A firm requires an initial cash outlay of Rs. 10000, yield the following set of annual cash flows, what is its payback period?

Year	After-tax Cash flows
1	Rs.4000
2	Rs.3000
3	Rs.3000
4	Rs.1000
5	Rs. 2000

Its payback period is 3 years as the firm is able to recover the initial outlay of Rs. 10000 only in the 3rd year.

Advantages

1. it is simple in concept and application
2. it emphasizes on the early recovery of the project cost it may be useful for the firms which are looking for liquidity

Disadvantages

1. It does not take into account the time value of money.
2. It ignores cash flows beyond the payback period. Projects which have substantial inflows in the later part are ignored.
3. It concentrates only on capital recovery and not on profitability

5.6.5 Accounting Rate of Return

Accounting rate of return = $\dfrac{Profit\ After\ Tax}{Book\ Value\ of\ the\ Investment}$

Higher the accounting rate of return, the better the project. Generally projects which returns equal to or greater than pre specified cut of return are accepted.

As it is evident that though ARR is easy to calculate and apply, it does not take into account time value of money and is based on the accounting profit and not cash flows.

5.7 TIME VALUE OF MONEY

One of the most important principles in all of finance is the relationship between value of a rupee today and value of rupee in future. This relationship is known as the 'time value of money'. A rupee today is more valuable than a rupee tomorrow. This is because current consumption is preferred to future consumption by the individuals, firms can employ capital productively to earn positive returns and in an inflationary period, rupee today represents greater purchasing power than a rupee tomorrow. The time value of the money may be computed in the following circumstances.

(a) Future value of a single cash flow

(b) Future value of an annuity

(c) Present value of a single cash flow

(d) Present value of an annuity

5.7.1 Future Value of a Single Cash Flow

For a given present value (PV) of money, future value of money (FV) after a period 't' for which compounding is done at an interest rate of 'r', is given by the equation

$$FV = PV (1+r)^t$$

This assumes that compounding is done at discrete intervals. However, in case of **continuous compounding**, the future value is determined using the formula

$$FV = PV * e^{rt}$$

Where 'e' is a mathematical function called 'exponential' the value of exponential (e) = 2.7183. The compounding factor is calculated by taking natural logarithm (log to the base of 2.7183).

Example 1: Calculate the value of a deposit of Rs.2,000 made today, 3 years hence if the interest rate is 10%.

By **discrete compounding**:

$FV = 2,000 * (1+0.10)^3 = 2,000 * (1.1)^3 = 2,000 * 1.331 =$ Rs. 2,662

By **continuous compounding**:

$FV = 2,000 * e^{(0.10 *3)} = 2,000 * 1.349862 =$ Rs.2699.72

Example 2: Find the value of Rs. 70,000 deposited for a period of 5 years at the end of the period when the interest is 12% and continuous compounding is done.

Future Value = $70,000* e^{(0.12*5)}$ = Rs. 1,27,548.827.

The future value (FV) of the present sum (PV) after a period 't' for which compounding is done 'm' times a year at an interest rate of 'r', is given by the following equation:

FV = PV (1+(r/m))^mt

Example 3: How much a deposit of Rs. 10,000 will grow at the end of 2 years, if the nominal rate of interest is 12 % and compounding is done quarterly?

Future value = 10,000 * $\left(1+\frac{0.12}{4}\right)^{4*2}$ = Rs. 12,667.70

5.7.2 Future Value of an Annuity

An annuity is a stream of equal annual cash flows. The future value (FVA) of a uniform cash flow (CF) made at the end of each period till the time of maturity 't' for which compounding is done at the rate 'r' is calculated as follows:

FVA = $CF*(1+r)^{t-1} + CF*(1+r)^{t-2} + ... + CF*(1+r)^{1}+CF$

$= CF\left(\frac{(1+r)^{t}-1}{r}\right)$

The term $\left(\frac{(1+r)^{t}-1}{r}\right)$ is referred as the **Future Value Interest Factor** for an **Annuity** (FVIFA). The same can be applied in a variety of contexts. For e.g. to know accumulated amount after a certain period,; to know how much to save annually to reach the targeted amount, to know the interest rate etc.

Example 4: Suppose, you deposit Rs.3,000 annually in a bank for 5 years and your deposits earn a compound interest rate of 10 per cent, what will be value of this series of deposits (an annuity) at the end of 5 years? Assume that each deposit occurs at the end of the year.

Future value of this annuity is:

=Rs.3000*$(1.10)^4$ + Rs.3000*$(1.10)^3$ + Rs.3000*$(1.10)^2$ + Rs.3000*(1.10) + Rs.3000

=Rs.3000*(1.4641)+Rs.3000*(1.3310)+Rs.3000*(1.2100)+Rs.3000*(1.10)+ Rs.3000

= Rs. 18315.30

Example 5: You want to buy a house after 5 years when it is expected to cost 40 lakh how much should you save annually, if your savings earn a compound return of 12%?

$$FVIFA_{t=5\ ,\ r=12\%} = \left(\frac{(1+0.12)^{5}-1}{0.12}\right) = 6.353$$

The annual savings should be:

4000000/6.353=6,29,623.80

In case of **continuous compounding**, the future value of annuity is calculated using the formula: FVA = CF * $(e^{rt}$ -1)/r.

5.7.3 Present Value of a Single Cash Flow

Present value of (PV) of the future sum (FV) to be received after a period 't' for which discounting is done at an interest rate of 'r', is given by the equation

In case of **discrete discounting**: $PV = FV / (1+r)^t$

Example 6: What is the present value of Rs.5,000 payable 3 years hence, if the interest rate is 10 % p.a.

$PV = 5000 / (1.10)^3$ i.e. = Rs.3756.57

In case of **continuous discounting**: $PV = FV * e^{-rt}$ OR $PV = \frac{FV}{e^{rt}}$

Example 7: What is the present value of Rs. 10,000 receivable after 2 years at a discount rate of 10% under continuous discounting?

Present Value = 10,000/(exp^(0.1*2)) = Rs. 8187.297

5.7.4 Present Value of an Annuity

The present value of annuity is the sum of the present values of all the cash inflows of this annuity.

Present value of an annuity (in case of **discrete discounting**)

$PVA = FV [\{(1+r)^t - 1 \}/ \{r * (1+r)^t\}]$

The term $[(1+r)^t - 1/ r*(1+r)^t]$ is referred as the Present Value Interest factor for an annuity (PVIFA).

Example 8: What is the present value of Rs. 2000/- received at the end of each year for 3 continuous years

= 2000*[1/1.10]+2000*[1/1.10]^2+2000*[1/1.10]^3

= 2000*0.9091+2000*0.8264+2000*0.7513

= 1818.181818+1652.892562+1502.629602

= Rs. 4973.704

Example 9: Assume that you have taken housing loan of Rs.10 lakh at the interest rate of Rs.11 percent per annum. What would be you equal annual installment for repayment period of 15 years?

Loan amount = Installment (A) *PVIFA n=15, r=11%

10,00,000 = A* $[(1+r)^t - 1/ r*(1+r)^t]$

10,00,000 = A* [(1.11)^15 - 1/ 0.11(1.11^15]

10,00,000 = A* 7.19087

10,00,000/7.19087 = A

A = Rs. 1,39,065.24

Present value of an annuity (in case of **continuous discounting**) is calculated as:

$$PV_a = FV_a * (1-e^{-rt})/r$$

5.8 Market Index

Traditionally, indices have been used as benchmarks to monitor markets and judge performance. Modern indices were first proposed by two 19th century mathematicians: Etienne Laspeyres and Hermann Paasche. The grandfather of all equity indices is the Dow Jones Industrial Average which was first published in 1896; since then indices have come a long way - not only in their sophistication - but also in the variety.

There are three main types of indices, namely price index, quantity index and value index. The price index is most widely used. It measures changes in the levels of prices of products in the financial, commodities or any other markets from one period to another. The indices in financial markets measure changes in prices of securities like equities, debentures, government securities, etc. The most popular index in financial market is the stock (equity) index which uses a set of stocks that are representative of the whole market, or a specified sector, to measure the change in overall behaviour of the markets or sector over a period of time.

A stock index is important for its use:

1. as the lead indicator of the performance of the overall economy or a sector of the economy: A good index tells us how much richer or poorer investors have become.
2. as a barometer for market behaviour: It is used to monitor and measure market movements, whether in real time, daily, or over decades, helping us to understand economic conditions and prospects.
3. as a benchmark for portfolio performance: A managed fund can communicate its objectives and target universe by stating which index or indices serve as the standard against which its performance should be judged.
4. as an underlying for derivatives like index futures and options. It also underpins products such as, exchange-traded funds, index funds etc. These index-related products form a several trillion dollar business and are used widely in investment, hedging and risk management.
5. as it supports research (for example, as benchmarks for evaluating trading rules, technical analysis systems and analysts' forecasts); risk measurement and management; and asset allocation.

In addition to the above functional use, a stock index reflects changing expectations of the market about future of the corporate sector. The index rises if the market expects the future to be better than previously expected and drops if the expectation about future becomes pessimistic.

Price of a stock moves for two reasons, namely, company specific development (product launch, improved financial performance, closure of a factory, arrest of chief executive) and development affecting the general environment (nuclear bombs, election result, budget announcement, growth in GDP of the economy), which affects the stock market as a whole. The stock index captures the second part, that is, impact of environmental change on the stock market as a whole. This is achieved by averaging which cancels out changes in prices of individual stocks.

5.8.1 Understanding the index number

An index is a summary measure that indicates changes in value(s) of a variable or a set of variables over a time or space. It is usually computed by finding the ratio of current values(s) to a reference (base) value(s) and multiplying the resulting number by 100 or 1000. For instance, a stock market index is a number that indicates the relative level of prices or value of securities in a market on a particular day compared with a base-day price or value figure, which is usually 100 or 1000.

Illustration: The values of a market portfolio at the close of trading on Day 1 and Day 2 are:

	Value of portfolio	**Index value**
DAY1 (base day)	Rs. 20,000	1000
Day 2	Rs. 30,000	1500

Assume that Day 1 is the base day and the value assigned to the base day index is 1000. On Day 2 the value of the portfolio has changed from Rs. 20,000 to Rs. 30,000, a 50% increase. The value of the index on Day 2 should reflect a corresponding 50% increase in market value. Thus,

Index on Day2 = $\dfrac{Portfolio\ Value\ of\ Day2}{Portfolio Value\ of\ Base\ Day} * Index\ Value\ of\ Base\ Day$

$$= \frac{Rs.\ 30{,}000}{Rs.\ 20{,}000} * 1000 = 1500$$

Day 2's index is 1500 as compared to the 1000 of day 1.

The above illustration only serves as an introduction to how an index is constructed. The daily computation of a stock index involves more complexity especially when there are changes in market capitalization of constituent stocks, e.g., rights offers, stock dividend etc.

Attributes of an index

A good stock market index should have the following attributes:

(a) Capturing behaviour of portfolios: A good market index should accurately reflect the behaviour of the overall market as well as of different portfolios. This is achieved by diversification in such a manner that a portfolio is not vulnerable to any individual stock or industry risk. A well-diversified index is more representative of the market. However there are diminishing returns from diversification. There is very little gain by diversifying beyond a point. Including illiquid stocks, actually worsens the index since an illiquid stock does not reflect the current price behaviour of the market, its inclusion in index results in an index, which reflects, delayed or stale price behaviour rather than current price behaviour of the market. Thus a good index should include the stocks which best represent the universe.

(b) Including liquid stocks: Liquidity is much more than reflected by trading frequency. It is about ability to transact at a price, which is very close to the current market price. For example, when the market price of a stock is at Rs.320, it will be considered liquid if one can buy some shares at around Rs.320.05 and sell at around Rs.319.95. A liquid stock has very tight bid-ask spread. Impact cost is the most practical and operational definition of liquidity.

(c) Maintaining professionally: An index is not a constant. It reflects the market dynamics and hence changes are essential to maintain its representative character. This necessarily means that the same set of stocks would not satisfy index criteria at all times. A good index methodology must therefore incorporate a steady pace of change in the index set. It is crucial that such changes are made at a steady pace. Therefore the index set should be reviewed on a regular basis and, if required, changes should be made to ensure that it continues to reflect the current state of market.

Methodology for index construction

There are three commonly used methods for constructing indices:

- Price weighted method
- Equally weighted method
- Market capitalisation weighted method

A price-weighted index is computed by summing up the prices, of the various securities included in the index, at time 1, and dividing it by the sum of prices of the securities at time 0 multiplied by base index value. Each stock is assigned a weight proportional to its price.

Example: Assuming base index = 1000, price weighted index consisting of 5 stocks tabulated below would be:

COMPANY	Share Price at Time- 0	Share Price at Time- 1
Reliance	351.75	340.50
AB & U	329.10	350.30
INFOSYS	274.60	280.40
HLL	1335.25	1428.75
Tata Tea	539.25	570.25
Total	**2829.95**	**2970.20**

Index = $\frac{2970.20}{2829.95}$ *1000 = 1049.56

An equally weighted index assigns equal weight to each stock. This is achieved by adding up the proportionate change in the price of each stock, dividing it by no of stocks in the index and multiplying by base index value.

Assuming base index = 1000, equally weighted index consisting of 5 stocks tabulated in the earlier example would be calculated as:

$$\text{Index} = \frac{\frac{340.50}{351.75}+\frac{350.30}{329.10}+\frac{280.40}{274.60}+\frac{1428.75}{1335.25}+\frac{570.25}{539.25}}{5} * 1000$$

$$= \frac{5.1810682}{5} * 1000 = 1036.21$$

Market capitalisation weighted index: The most commonly used weight is market capitalization (MC), that is, the number of outstanding shares multiplied by the share price at some specified time. In this method,

$$\text{Index} = \frac{\textit{Current Market Capitalization}}{\textit{Base Market Capitalization}} * \textit{Base Value}$$

Where,

Current MC = Sum of (number of outstanding shares*Current Market Price) all stocks in the index

Base MC = Sum of (number of outstanding shares*Market Price) all stocks in index as on base date

Base value = 100 or 1000

Assuming base index = 1000, market capitalisation weighted index consisting of 5 stocks tabulated in the earlier example would be calculated as:

COMPANY	Current Market Capitalization (Rs. Lakh)	Base Market Capitalization (Rs. Lakh)
Reliance	1668791.10	1654247.50
AB & U	872686.30	860018.25
INFOSYS	1452587.65	1465218.80
HLL	2675613.30	2669339.55
Tata Tea	660887.75	662559.30
Total	**7330566.10**	**7311383.40**

Index = $\frac{7330566.10}{7311383.40} * 1000$ = 1002.62

Difficulties in index construction:

The major difficulties encountered in constructing an appropriate index are:

- deciding the number of stocks to be included in the index,
- selecting stocks to be included in the index,
- selecting appropriate weights, and
- selecting the base period and base value.

5.8.2 Understanding S&P CNX NIFTY

S&P CNX Nifty is a well diversified 50 stock index accounting for 23 sectors of the economy. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds.

S&P CNX Nifty is owned and managed by India Index Services and Products Ltd. (IISL), which is a joint venture between NSE and CRISIL. IISL is India's first specialised company focused upon the index as a core product. IISL has a Marketing and licensing agreement with Standard & Poor's (S&P), who are world leaders in index services.

Method of Computation

S&P CNX Nifty is computed using market capitalization weighted method, wherein the level of the index reflects the total market value of all the stocks in the index relative to a particular base period. The method also takes into account constituent changes in the index and importantly corporate actions such as stock splits, rights, etc without affecting the index value.

Base Date and Value

The base period selected for S&P CNX Nifty index is the close of prices on November 3, 1995, which marks the completion of one year of operations of NSE's Capital Market Segment. The base value of the index has been set at 1000 and a base capital of Rs.2.06 trillion.

Criteria for Selection of Constituent Stocks

The constituents and the criteria for the selection judge the effectiveness of the index. Selection of the index set is based on the following criteria:

§ Liquidity (Impact Cost)

§ Floating Stock

§ Others

Liquidity (Impact Cost)

For inclusion in the index, the security should have traded at an average impact cost of 0.50% or less during the last six months for 90% of the observations for a basket size of Rs. 2 Crores.

Impact cost is cost of executing a transaction in a security in proportion to the weightage of its market capitalisation as against the index market capitalisation at any point of time. This is the percentage mark up suffered while buying / selling the desired quantity of a security compared to its ideal price (best buy + best sell) / 2

Floating Stock

Companies eligible for inclusion in S&P CNX Nifty should have atleast 10% floating stock. For this purpose, floating stock shall mean stocks which are not held by the promoters and associated entities (where identifiable) of such companies.

Others

a) A company which comes out with a IPO will be eligible for inclusion in the index, if it fulfills the normal eligiblity criteria for the index like impact cost, market capitalisation and floating stock, for a 3 month period instead of a 6 month period.

b) Replacement of Stock from the Index:

A stock may be replaced from an index for the following reasons:

Compulsory changes like corporate actions, delisting etc. In such a scenario, the stock having largest market capitalization and satisfying other requirements related to liquidity, turnover and free float will be considered for inclusion.

When a better candidate is available in the replacement pool, which can replace the index stock i.e. the stock with the highest market capitalization in the replacement pool has at least twice the market capitalization of the index stock with the lowest market capitalization.

With respect to (2) above, a maximum of 10% of the index size (number of stocks in the index) may be changed in a calendar year. Changes carried out for (2) above are irrespective of changes, if any, carried out for (1) above.

From June 26, 2009, S&P CNX Nifty is computed using Free Float Market Capitalisation weighted method, wherein the level of index reflects the free float market capitalisation of all stocks in Index.

5.8.3 India Index Services & Products Ltd. (IISL)

IISL is jointly promoted by NSE, the country's leading stock exchange and The Credit Rating and Information Services of India Ltd.(CRISIL), the leading credit rating agency in India. IISL has a licensing and marketing agreement with Standard & Poor's (S&P), the leading index services provider in the world.

S&P CNX Nifty, the most popular and widely used indicator of the stock market in India, is the owned and managed by IISL, which also maintains over 80 indices comprising broad based benchmark indices, sectoral indices and customised indices

MODEL TEST PAPER

SURVEILLANCE IN STOCK EXCHANGES MODULE

Q 1. ________ equals square root of variance. [1 Mark]

(a) Regression
(b) Co-relation
(c) Co-variance
(d) Standard deviation

Q 2. _________, clear and settle their trades executed by them only either on their own account or on account of their clients. [2 Marks]

(a) Self clearing members
(b) Trading cum clearing members
(c) Professional clearing members
(d) Trading members

Q 3. From the following information of a firm, determine quick ratio: Cash and bank balances = Rs.20 lakh, Debtors = Rs. 30 lakh, Current liabilities = Rs.40 lakh [1 Mark]

(a) 0.44
(b) 6
(c) 1.25
(d) 2.25

Q 4. The clearing corporation sends electronic instructions to the clearing banks to debit designated Clearing Members' accounts to the extent of payment obligations. [2 Marks]

(a) TRUE
(b) FALSE

Q 5. Effectiveness of _________ function depends on its ability to promptly and accurately identify suspicious trading. [1 Mark]

(a) settlement
(b) trading
(c) surveillance
(d) clearing

Q 6. As a part of the liberalisation process, the was repealed in 1992 paving way for market determined allocation of resources. [1 Mark]

(a) Capital Disposal Control Act

(b) Capital Subscription Control Act

(c) Capital Protection Control Act

(d) Capital Issues Control Act

Q 7. ______ 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. [1 Mark]

(a) The Depositories Act

(b) The Companies Act

(c) The Securities Contracts (Regulation) Act

(d) The Money Laundering Act

Q 8. Improper transactions in which there is no genuine change in actual ownership of the security is an example of _____. [1 Mark]

(a) genuine trade

(b) Informed trading

(c) legal trading

(d) market abuse

Q 9. CAPM stands for [1 Mark]

(a) Capital Asset Pricing Model

(b) Capital Accrual Pricing Model

(c) Capital Appreciation Pricing Model

(d) Capital Allocation Pricing Model

Q 10. The current assets of a firm XYZ Ltd. are Rs. 50.00 crore and it has current liabilities and provisions of Rs. 20.00 crore. It has reserves amounting to Rs. 10.00 crore. What is the current ratio of the firm? [1 Mark]

(a) 2.5

(b) 0.6

(c) 1.67

(d) 3

Q 11. From the following information of a firm, determine earnings per share:
Net profit available to equity holders = Rs.200 lakh, Equity share capital = Rs.40 lakh, Face value of an equity share = Rs. 10 [1 Mark]

(a) Rs. 250.00
(b) Rs. 350.00
(c) Rs. 150.00
(d) Rs. 50.00

Q 12. Where SEBI forms a prima facie opinion that it is necessary to investigate and inspect the books of accounts, either documents and records of an insider or the stock exchanges, mutual funds, other persons associated with the securities market, intermediaries and self-regulatory organisation in the securities market, it may appoint an investigating authority for the purpose. [3 Marks]

(a) TRUE
(b) FALSE

Q 13. NSCCL may stipulate security specific margins for the securities from time to time. [2 Marks]

(a) TRUE (b) FALSE

Q 14. _____ is (are) an example(s) of market abuse. [1 Mark]

(a) Dissemination of false or misleading market information through various media.
(b) Trading on the basis of un-published price sensitive information.
(c) Increasing the bid for a security to increase its price.
(d) All of the above

Q 15. In case of a ____ movement of the index, trading shall be halted for the remainder of the day. [3 Marks]

(a) 2%
(b) 10%
(c) 20%
(d) 5%

Q 16. IOSCO stands for: [1 Mark]

(a) International Organization of Securities Commissions
(b) International Organization of Settlement Commissions
(c) International Organization of Shares Commissions
(d) International Organization of STP Commissions

Q 17. Where a recognised stock exchange acting in pursuance of any power given to it by its bye-laws, refuses to list the securities of any company, the company should be entitled to be furnished with reasons for such refusal and the company may appeal to ________ against such refusal. [1 Mark]

(a) Securities Action Tribunal (SAT)
(b) SEBI Approval Tribunal (SAT)
(c) Securities Appellate Tribunal (SAT)
(d) Securities Appeal Tribunal (SAT)

Q 18. Once a member fails on any obligations, NSCCL immediately initiates measures to reduce exposure limits, withhold pay out of securities, square up open positions, disable trading terminal until member¿s obligations are fully discharged. [2 Marks]

(a) FALSE
(b) TRUE

Q 19. The __________ is responsible for regulating the securities markets along with other regulators. [1 Mark]

(a) Department of Home Affairs (DHA)
(b) Department of Securities Affairs (DSA)
(c) Department of Economic Policy (DEP)
(d) Department of Economic Affairs (DEA)

Q 20. In the event of failure of a trading member to meet settlement obligations or committing default, the _____ is utilized to the extent required for successful completion of the settlement. [2 Marks]

(a) Financial Guarantee Fund
(b) Settlement Utilisation Fund
(c) Financial Settlement Fund
(d) Settlement Guarantee Fund

Q 21. The current assets of a firm XYZ Ltd. are Rs. 35.00 crore and it has current liabilities and provisions of Rs. 13.00 crore. It has reserves amounting to Rs. 8.00 crore. What is the current ratio of the firm? [1 Mark]

(a) 2.69
(b) 1.67
(c) 2.75
(d) 0.6

Q 22. All the intermediaries and persons associated with securities market, viz., brokers and sub-brokers, underwriters, merchant bankers, bankers to the issue, share transfer agents and registrars to the issue, mutual funds, etc., should be registered with _____. [1 Mark]

(a) SEBI

(b) ANMI

(c) AMFI

(d) NSDL

Q 23. Any person who holds more than _____ shares or voting rights in any listed company should disclose to the company in prescribed form, the number of shares or voting rights held by such person, on becoming such holder. [3 Marks]

(a) 5%

(b) 2%

(c) 4%

(d) 3%

Q 24. Trade for trade deals are settled on a net basis. [3 Marks]

(a) FALSE

(b) TRUE

Q 25. As per the SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009, an issuer may make an initial public offer (an offer of equity shares and convertible debentures by an unlisted issuer to the public for subscription and includes an offer for sale of specified securities to the public by an existing holder of such securities in an unlisted issuer) if: [3 Marks]

(a) The issuer company has a net worth of at least Rs.1 crores in each of the preceding 3 full years (of 12 months each).

(b) The aggregate of the proposed issue and all previous issues made in the same financial year in terms of issue size does not exceed 5 times the company's pre-issue net worth as per the audited balance sheet of the preceding financial year.

(c) In case of change of name by the issuer company within last one year, at least 50% of the revenue for the preceding one year should have been earned by the company from the activity indicated by the new name.

(d) All of the above

Q 26. If there is an unusual change in terms of price and/or trading volume for any security, the alert system will generate an alert so that online securities monitoring team will be able to promptly investigate for the reason of that unusual change notice any security with unusual changes in its trading pattern. [2 Marks]

(a) TRUE

(b) FALSE

Q 27. The _____ factor describes the movement in a security¿s or a portfolio¿s return in relation to that of the market returns. [1 Mark]

(a) Theta

(b) Gamma

(c) Beta

(d) Rho

Q 28. A part of the cash deposit and the entire security deposit of every clearing member with the Exchange has been converted into an initial contribution towards the _________. [2 Marks]

(a) Brokers' fund

(b) Settlement Guarantee Fund

(c) Bank balance

(d) Treasury fund

Q 29. The following is deemed to be price sensitive information: [3 Marks]

(a) significant changes in policies, plans or operations of the company

(b) disposal of the whole or substantial part of the undertaking

(c) amalgamation, mergers or takeovers

(d) All of the above

Q 30. A market can be considered ______if all participants face the same conditions of trading and no entity is in a position to trade on information that is not publicly available. [2 Marks]

(a) liquid

(b) illiquid

(c) fair

(d) unfair

Q 31. The Central Government and SEBI have powers to suspend the business of the recognised stock exchange to meet any emergency as and when it arises, by notifying in the official gazette. [1 Mark]

(a) FALSE

(b) TRUE

Q 32. ________ is essential to an active market and regulation should not unnecessarily stifle legitimate ________. [2 Marks]

(a) insider trading, insider trading

(b) manipulation, manipulation

(c) market making, market making

(d) risk taking, risk taking

Q 33. Information relating to price and volume movements in the market, broker positions, risk management, settlement process and compliance pertaining to listing agreement are monitored by the exchanges on a real time basis as part of their self regulatory function. [1 Mark]

(a) FALSE

(b) TRUE

Q 34. Organised trading activity in securities takes place on a ________. [1 Mark]

(a) recognised stock exchange

(b) local market

(c) kerb market

(d) virtual market

Q 35. The stock returns of the company A for past five years are 10%, 20% 5%, 30% and 35%. What is the standard deviation of the returns for the returns of the company A? [1 Mark]

(a) 11.4

(b) 13.4

(c) 12.4

(d) 14.4

Q 36. Supervision of market intermediaries should achieve investor protection by setting minimum standards for market participants. [2 Marks]

(a) TRUE

(b) FALSE

Q 37. Buying at increasingly higher prices and then the securities are sold in the market, often to retail investors, at inflated prices. This is a form of market abuse. [1 Mark]

(a) FALSE

(b) TRUE

Q 38. _______ keeps a continuous vigil on the activities of the stock exchanges to promote an effective surveillance mechanism and Integrated Surveillance Department also carries out inspection of surveillance department of major stock exchanges. [2 Marks]

(a) AMFI
(b) SEBI
(c) ANMI
(d) RBI

Q 39. Members may provide additional collateral deposit towards liquid assets, over and above their minimum membership deposit requirements. [2 Marks]

(a) FALSE
(b) TRUE

Q 40. The powers under the Securities Contract Regulations Rule, 1957 are exercisable by _____. [1 Mark]

(a) SEBI
(b) NSDL
(c) RBI
(d) ANMI

Q 41. As per the SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009, an issuer may make a further public offer (an offer of equity shares and convertible securities) if : [3 Marks]

(a) the aggregate of the proposed issue and all previous issues made in the same financial year in terms of issue size does not exceed 5 times its pre-issue net worth as per the audited balance sheet of the preceding financial year
(b) it has changed its name within the last one year, at least 50% of the revenue for the preceding one full year has been earned by it from the activity indicated by the new name.
(c) Indian Depository Receipts
(d) All of the above

Q 42. NSCCL has put in place a comprehensive risk management system which is constantly monitored and upgraded to pre-empt market failures. [2 Marks]

(a) FALSE
(b) TRUE

Q 43. The standard deviation of 2 securities A and B are 15% and 10% and their correlation coefficient is 0.8. What is the portfolio risk, if the investments in A is 30% and in B is 70%? [1 Mark]

(a) 2.19%

(b) 0.19%

(c) 3.19%

(d) 10.94%

Q 44. The __________ are charged with the primary responsibility of taking timely and effective surveillance measures in the interest of investors and market integrity. [2 Marks]

(a) sub brokers

(b) broker associations

(c) brokers

(d) stock exchanges

Q 45. The surveillance function is an extremely vital link in the chain of activities performed by the regulatory agency for fulfilling its avowed mission of protection of investor interest and development and regulation of capital markets. [1 Mark]

(a) FALSE

(b) TRUE

Q 46. Dividend Growth Model approach assumes that the price of equity stock depends ultimately on the _____ expected from it. [1 Mark]

(a) appreciation

(b) profit

(c) income

(d) dividend

Q 47. In order to prevent members from entering orders at erroneous prices in securities on which derivative products are available, the stock exchanges have fixed operating range of _____ for such securities. [2 Marks]

(a) 40%

(b) 30%

(c) 50%

(d) 20%

Q 48. The Trading Members are required to upload the proper client categories for identification of various categories of clients trading on the Exchange. [3 Marks]

(a) FALSE

(b) TRUE

Q 49. Index VaR means the higher of ____ or _____ index sigmas. [2 Marks]

(a) 7%, 5

(b) 6%, 4

(c) 8%, 6

(d) 5%, 3

Q 50. The _______ Act, 1996 provides for electronic maintenance and transfer of ownership of dematerialised securities. [1 Mark]

(a) Depositories

(b) Stock Exchanges

(c) Securities

(d) Settlement

Q 51. The last traded price of a security is Rs. 101. The previous close price of the security was Rs. 98. What is the price variation of the security? [2 Marks]

(a) 18.06%

(b) 13.06%

(c) 8.06%

(d) 3.06%

Q 52. The _________ is the number of years required to recover the initial project cost. [1 Mark]

(a) payback period

(b) payin period

(c) pay period

(d) payout period

Q 53. Unlike systematic risk, the unsystematic risk can be reduced/avoided through ________. [1 Mark]

(a) diversification

(b) minimisation

(c) standardisation

(d) maximisation

Q 54. The high price of the day for a security is Rs. 102 and the low price is Rs. 91. The previous close price of the security was Rs. 81. What is the High - Low variation of the security? [3 Marks]

(a) 13.58%

(b) 23.58%

(c) 18.58%

(d) 28.58%

Q 55. In order to evaluate a project the following method(s) is(are) adopted : [1 Mark]

(a) Net Present Value

(b) Benefit-Cost Ratio

(c) Internal Rate of Return

(d) All of the above

Q 56. The high price of the day for a security is Rs. 100 and the low price is Rs. 90. The previous close price of the security was Rs. 80. What is the High - Low variation of the security? [3 Marks]

(a) 12.50%

(b) 17.50%

(c) 22.50%

(d) 27.50%

Q 57. On the basis of ________ the stock exchanges can gauge any abnormalities or manipulations in the market. [2 Marks]

(a) tips

(b) real time alerts

(c) rumours

(d) market news

Q 58. Daily margins payable by members consists of : [2 Marks]

(a) Total margin

(b) Gross margin

(c) Mark to Market margin

(d) Scrip specific margin

Q 59. Daily margins payable by members consists of : [2 Marks]

(a) Total margin

(b) Gross margin

(c) Scrip specific margin

(d) Value at Risk margin

Q 60. Stock price of XYZ Ltd. is trading at Rs.66. The firm is expected to declare dividend of Rs.7 per share and is expected to grow at rate of 10 per cent per year. What is the cost of equity under dividend growth model? [1 Mark]

(a) 12.30%

(b) 18.30%

(c) 20.61%

(d) 22.65%

Answers:

1	(d)	21	(a)	41	(d)
2	(a)	22	(a)	42	(b)
3	(c)	23	(a)	43	(d)
4	(a)	24	(a)	44	(d)
5	(c)	25	(d)	45	(b)
6	(d)	26	(a)	46	(d)
7	(c)	27	(c)	47	(d)
8	(d)	28	(b)	48	(b)
9	(a)	29	(d)	49	(d)
10	(a)	30	(c)	50	(a)
11	(d)	31	(b)	51	(d)
12	(a)	32	(d)	52	(a)
13	(a)	33	(b)	53	(a)
14	(d)	34	(a)	54	(a)
15	(c)	35	(a)	55	(d)
16	(a)	36	(a)	56	(a)
17	(c)	37	(b)	57	(b)
18	(b)	38	(b)	58	(c)
19	(d)	39	(b)	59	(d)
20	(d)	40	(a)	60	(c)

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