Capital Market

A. Introduction

Secondary Market refers to a market where securities are traded after being initially offered to the public in the primary market and/or listed on the Stock Exchange. The stock exchanges along with a host of other intermediaries provide the necessary platform for trading in secondary market and also for clearing and settlement. The securities are traded, cleared and settled within the regulatory framework prescribed by the Exchanges and the SEBI. The Exchange has laid down rules and guidelines for various intermediaries with regards to the admission and Fee structure for Trading Members, listing criteria and listing fees for companies. With the increased application of information technology, the trading platforms of stock exchanges are accessible from anywhere in the country through their trading terminals. The trading platforms are also accessible through internet. In a geographically widespread country like India, this has significantly expanded the reach of the exchanges. Secondary market comprises of equity markets and the debt markets. This chapter focuses on equity markets, while debt markets are dealt with in chapter 5.

The transactions in secondary market pass through three distinct phases, viz., trading, clearing and settlement. While the stock exchanges provide the platform for trading, the clearing corporation determines the funds and securities obligations of the trading members and ensures that the trade is settled through exchange of obligations. The clearing banks and the depositories provide the necessary interface between the custodians/clearing members for settlement of funds and securities obligations of trading members.

Several entities, like the clearing corporation, clearing members, custodians, clearing banks, depositories are involved in the process of clearing. The role of each of these entities is explained below:

1) **Clearing Corporation:** The clearing corporation is responsible for post-trade activities such as risk management and clearing and settlement of trades executed on a stock exchange.

   The National Securities Clearing Corporation Ltd. (NSCCL), a wholly owned subsidiary of NSE, was the first clearing corporation to be established in the country and also the first clearing corporation in the country to introduce settlement guarantee. The NSCCL was incorporated in August 1995. It was set up with the objective of bringing and sustaining confidence in clearing and settlement of securities; promoting and maintaining short and consistent settlement cycles; providing counter-party risk guarantee and operating a tight risk containment system.

2) **Clearing Members:** Clearing Members are responsible for settling their obligations as determined by the clearing corporation. They do so by making available funds and/or securities in the designated accounts with clearing bank/depositories on the date of settlement.

3) **Custodians:** Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement. The custodian is required to confirm whether he is going to settle that trade or not. If he confirms to settle that trade, then clearing corporation assigns that particular obligation to him. As on September 30, 2010, there are 15 custodians empanelled with NSCCL. They are Axis Bank Ltd., BNP Paribas, Citibank N.A., DBS bank Ltd., Deutsche Bank A.G., HDFC Bank Ltd.,

Hongkong & Shanghai Banking Corporation Ltd., ICICI Bank Ltd., Infrastructure leasing and Financial Services Ltd., JP Morgan Chase Bank N.A., Kotak Mahindra Bank Ltd., Orbis Financial Corporation Ltd., SBI - SG Global Securities Services, Standard Chartered Bank Ltd., and Stock Holding Corporation of India Ltd.

4) **Clearing Banks:** Clearing banks are a key link between the clearing members and Clearing Corporation to effect settlement of funds. Every clearing member is required to open a dedicated clearing account with one of the designated clearing banks. Based on the clearing member's obligation as determined through clearing, the clearing member makes funds available in the clearing account for the pay-in and receives funds in case of a pay-out. There are 13 clearing banks of NSE, such as Axis Bank Ltd., Bank of India Ltd., Canara Bank Ltd., Citibank N.A, HDFC Bank Ltd., HSBC Ltd., ICICI Bank Ltd., IDBI Bank Ltd., IndusInd Bank Ltd., Kotak Mahindra Bank, Standard Chartered Bank, State Bank of India and Union Bank of India.

5) **Depositories:** Depository holds securities in dematerialized form for the investors in their beneficiary accounts. Each clearing member is required to maintain a clearing pool account with the depositories. He is required to make available the required securities in the designated account on settlement day. The depository runs an electronic file to transfer the securities from accounts of the custodians/clearing member to that of NSCCL and visa-versa as per the schedule of allocation of securities. The two depositories in India are the National Securities Depository Ltd. (NSDL) and Central Depository Services (India) Ltd. (CDSL).

6) **Professional Clearing Member:** NSCCL admits special category of members known as professional clearing members (PCMs). PCMs may clear and settle trades executed for their clients (individuals, institutions etc.). In such cases, the functions and responsibilities of the PCM are similar to that of the custodians. PCMs also undertake clearing and settlement responsibilities of the trading members. The PCM in this case has no trading rights, but has clearing rights i.e. he clears the trades of his associate trading members and institutional clients.

B. Trading Mechanism

NSE was the first stock exchange in the country set up as a national exchange having nation-wide access with fully automated screen based trading system. National Exchange for Automated Trading (NEAT) is the trading system of NSE. NEAT facilitates a system on-line, fully automated, nationwide, anonymous, order driven, screen-based trading. In this system a member can punch into the compute quantities of securities and the prices at which he likes to transact and the transaction is executed as soon as it finds a matching sale for buy order for a counter party. The numerous advantages of the NEAT system are detailed out below :

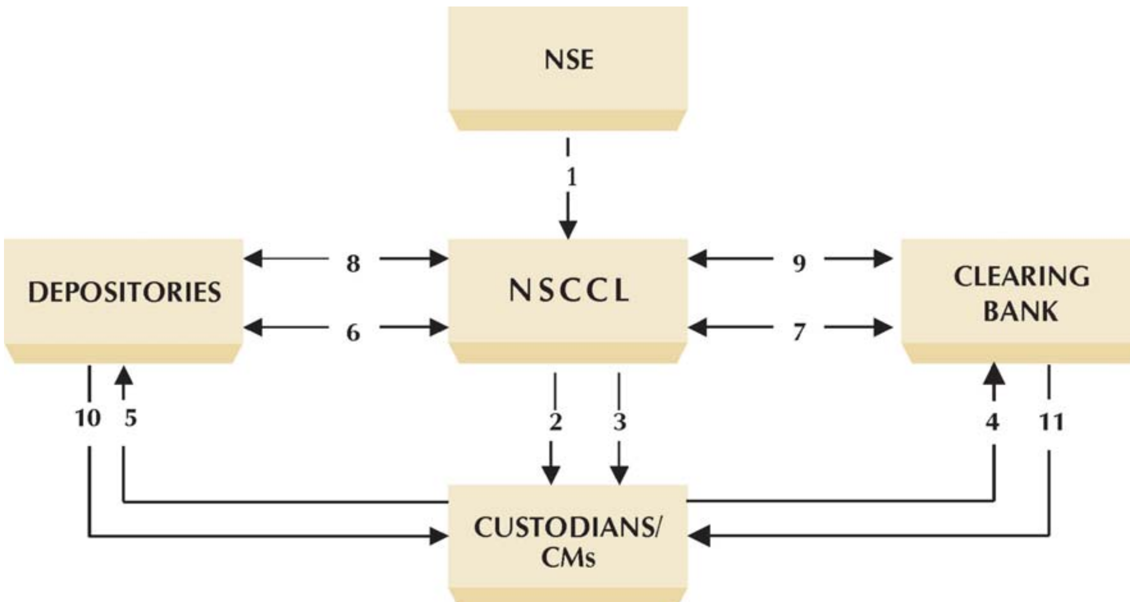
- It electronically matches orders on a price/time priority and hence cuts down on time, cost and risk of error, as well as on fraud resulting in improved operational efficiency.
- It allows faster incorporation of price sensitive information into prevailing prices, thus increasing the informational efficiency of markets.
- It enables market participants to see the full market on real-time, making the market transparent. It allows a large number of participants, irrespective of their geographical locations, to trade with one another simultaneously, improving the depth and liquidity of the market.
- It provides tremendous flexibility to the users in terms of kinds of orders that can be placed on the system. It ensures full anonymity by accepting orders, big or small, from members without revealing their identity, thus providing equal access to everybody.
- It provides a perfect audit trail which helps to resolve disputes by logging in the trade execution process in entirety.

C. Clearing & Settlement Process

The clearing process involves determination of what counter-parties owe, and which counter-parties are due to receive on the settlement date, thereafter the obligations are discharged by settlement. The clearing and settlement process comprises of three main activities- clearing, settlement and risk management.

The clearing and settlement process for transaction in securities on NSE is presented in (Chart 4-1).

Chart 4-1: Clearing and Settlement Process at NSE



1. Trade details from Exchange to NSCCL (real-time and end of day trade file).
2. NSCCL notifies the consummated trade details to clearing members/custodians and then it applies multilateral netting and determines obligations.
3. Download of obligation and pay-in advice of funds/securities.
4. Instructions to clearing banks to make funds available by pay-in time.
5. Instructions to depositories to make securities available by pay-in-time.
6. Pay-in of securities (NSCCL advises depository to debit pool account of custodians/CMs and credit its account and depository does it)
7. Pay-in of funds(NSCCL advises Clearing Banks to debit account of custodians/CMs and credit its account and clearing bank does it)
8. Pay-out of securities (NSCCL advises depository to credit pool account of custodians/CMs and debit its account and depository does it)
9. Pay-out of funds (NSCCL advises Clearing Banks to credit account of custodians/CMs and debit its account and clearing bank does it)
10. Depository informs custodians/CMs through DPs.
11. Clearing Banks inform custodians/CMs.

The core processes involved in clearing and settlement include:

a) Trade Recording: The key details about the trades are recorded to provide basis for settlement. These details are automatically recorded in the electronic trading system of the exchanges.

b) Trade Confirmation: Trades which are for settlement by custodians are indicated with a custodian participant code and the same is subject to confirmation by the respective custodian. The custodian is required to confirm settlement of these trades on T+1 day by the cut-off time of 1.00 pm.

c) Determination of Obligation: The next step is determination of what counter-parties owe, and what counter-parties are due to receive on the settlement date. The NSCCL interposes itself as a central counterparty between counterparties to trades and nets the positions so that a member has security-wise net obligation to receive or deliver a security and has to either pay or receive funds.

The settlement process begins as soon as members' obligations are determined through the clearing process. The settlement process is carried out by the Clearing Corporation with the help of clearing banks and depositories. The Clearing Corporation provides a major link between the clearing banks and the depositories. This link ensures actual movement of funds as well as securities on the prescribed pay-in and pay-out day.

d) Pay-in of Funds and Securities: This requires members to bring in their funds/securities to the clearing corporation. The 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.

e) Pay-out of Funds and 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 Cycle

NSCCL clears and settles trades as per the well-defined settlement cycles (Table 4-1). All the securities are being traded and settled under T+2 rolling settlement. The NSCCL notifies the relevant trade details to clearing members/custodians on the trade day (T), which are affirmed on T+1 to NSCCL. Based on it, NSCCL nets the positions of counterparties to determine their obligations. A clearing member has to pay-in/pay-out funds and/or securities. The obligations are netted for a member across all securities to determine his fund obligations and he has to either pay or receive funds. Members' pay-in/pay-out obligations are determined latest by T+1 and are forwarded to them on the same day, so that they can settle their obligations on T+2. The securities/funds are paid-in/paid-out on T+2 day to the members' clients and the settlement is completed in 2 days from the end of the trading day.

The important settlement types are: Normal segment (N), Trade for trade Surveillance (W), Retail Debt Market (D), Limited Physical market (O), Non cleared TT deals (Z), Auction normal (A). Trades in the settlement type N, W, D and A are settled in dematerialized mode. Trades under settlement type O are settled in physical form. Trades under settlement type Z are settled directly between the members and may be settled either in physical or dematerialized mode.

Table 4-1: Settlement Cycle in CM Segment

Activity		T+2 Rolling Settlement
Trading	Rolling Settlement Trading	T
Clearing	Custodial Confirmation	T+1
	Delivery Generation	T+1
Settlement	Securities and Funds Pay-in	T+2
	Securities and Funds Pay-out	T+2
	Valuation Debit	T+2.
Post Settlement	Auction	T+2
	Auction Settlement	T+3
	Bad Delivery Reporting	T+4
	Rectified Bad Delivery Pay-in/Pay-out	T+6
	Re-bad Delivery Reporting and pickup	T+8
	Close Out of Re-bad Delivery and funds pay-in & pay-out	T+9

Source: NSE
Note : T+1 means one working day after the trade day. Other T+ terms have similar meanings.

Dematerialised Settlement

For all trades executed on the T day, NSCCL determines the cumulative obligations of each member on the T+1 day and electronically transfers the data to Clearing Members (CMs). All trades concluded during a particular trading date are settled on a designated settlement day i.e. T+2 day. In case of short deliveries on the T+2 day in the normal segment, NSCCL conducts a buy–in auction on the T+2 day and the settlement for the same is completed on the T+3 day, whereas in case of W segment there is a direct close out. For arriving at the settlement day all intervening holidays, which include bank holidays, NSE holidays, Saturdays and Sundays are excluded. The settlement schedule for all the settlement types in the manner explained above is communicated to the market participants vide circular issued during the previous month.

D. Policy Developments

Over the past years the Government and the market regulators have taken several policy measures to improve the operations of the stock exchanges and market intermediaries. The measures are aimed at improving the market infrastructure and upgradation of risk containment, so as to protect the interest of the investors. The recent policy developments (April 2009 to December 2010) pertaining to secondary markets segment are enumerated below.

I. Comprehensive Risk Management Framework for the cash market

As per the recommendations of the Secondary Market Advisory Committee of SEBI, few changes regarding the Comprehensive Risk Management Framework for the cash market have been made on July 27, 2009. The SEBI circular provides that in case of a buy transaction in cash market, VaR margins, Extreme loss margins and mark to market losses together should not exceed the purchase value of the transaction. Further, in case of a sale transaction in cash market, the existing practice should continue viz., VaR margins and Extreme loss margins together should not exceed the sale value of the transaction and mark to market losses should also be levied.

II. Amendment to SEBI (DIP) Guidelines, 2000 – Applications Supported by Blocked Amount (ASBA) facility in public issues and rights issues.

In its continuing endeavour to make the existing public issue facility more efficient, SEBI had introduced ASBA (ASBA Phase I) as a supplementary facility of applying in public issues, vide its circular dated July 30, 2008 which was available to retail individual investors in public issues only. In order to simplify the rights issue process as well as to make it more efficient and effective, SEBI has amended the SEBI (DIP) Guidelines 2000. ASBA Phase I was subsequently extended to rights issues vide circulars dated September 25, 2008 and August 20, 2009.

Rights issues are further issuances of capital made by listed entities to existing shareholders. These shareholders are generally in possession of basic information about the issuer company and are generally updated on major developments in the company on a continuous basis. SEBI, vide circular dated September 25, 2008, had enabled the facility of applying in rights issue through ASBA on a pilot basis. It has now been decided to make ASBA applicable to all rights issues. ASBA will co-exist with the current process, wherein cheque/demand draft is used as a mode of payment. Since the web enabled interface of stock exchanges is now operational for the purpose of acceptance of the rights issue applications, self certified syndicate banks shall upload the application data in to the aforesaid interface of stock exchanges. All applicants who desire to apply through ASBA should hold shares of the issuer company in a depository account.

III. Prior approval for re-commencing trading on the Stock Exchange.

A stock exchange in India is recognized by the Central Government / SEBI under section 4 of Securities Contracts (Regulation) Act, 1956 for the purpose of assisting, regulating or controlling the business of buying, selling or dealing in securities. Among the existing recognized stock exchanges in India it has been observed that some of the stock exchanges have no trading over the past several years. With the completion of corporatisation and demutualisation of stock exchanges, some of the stock exchanges have generated renewed trading interest and are in the process of resuming trading for reviving the stock exchange. While these stock exchanges have no trading activity for quite some time, the regulatory changes introduced by SEBI in the interim may not have been complied with. Considering that a stock exchange is required to have adequate and effective trading systems, clearing and settlement system, monitoring and surveillance mechanisms, risk management systems etc, the resumption of trading activity without basic infrastructure may not be in the interest of investors / trade. In light of the above, the stock exchanges that have no trading for a period of six months or more shall resume trading only after ensuring that adequate and effective trading systems, clearing and settlement systems, monitoring and surveillance mechanisms, risk management systems are in place and have also complied with all other regulatory requirements stipulated by SEBI from time to time. Further, the stock exchanges shall resume trading only after obtaining prior approval from SEBI. In case the stock exchanges have no trading for a period of less than six months, the stock exchange shall ensure that necessary regulatory requirements have been complied with before resuming trading and the matter may be placed before its Board with reasons, if any.

IV. Facilitating transactions in Mutual Fund schemes through the Stock Exchange infrastructure

SEBI vide circular SEBI /IMD / CIR No.11/183204/ 2009 dated November 13, 2009 has permitted units of mutual fund schemes to be transacted through registered stock brokers of recognized stock exchanges. In order to provide more avenues for purchasing and redeeming Mutual Fund units, in addition to the existing facilities of purchasing and redeeming directly with the Mutual Funds and Stock Brokers, units of mutual funds schemes are allowed to be transacted through clearing members of the registered Stock Exchanges.

Investors shall receive redemption amount (if units are redeemed) and units (if units are purchased) through broker/ clearing member's pool account. Mutual Funds(MF)/ Asset management Companies(AMC) would pay proceeds to the broker/clearing member (in case of redemption) and broker/clearing member in turn to the respective investor and similarly units shall be credited by MF/AMC into broker/clearing member's pool account (in case of purchase) and broker/clearing member in turn to the respective investor.

V. Reporting of Lending of securities bought in the Indian Market.

FIIs have been submitting daily reports of information pertaining to securities lent by the FIIs to entities abroad, based on which disclosures have been made available for public dissemination twice in a week, one on Tuesday and another on Friday. On a review it has been decided to modify the periodicity of these reports from daily submissions to weekly submissions. In accordance with this change in periodicity of reports, the FIIs shall now be required to submit the reports every Friday.

VI. Review of Securities Lending and Borrowing (SLB) Framework

Pursuant to feedback received from market participants and proposals for revision of SLB received from NSE and BSE, the SLB framework was revised vide circular no. MRD/DoP/SE/ Cir-31/2008 dated October 31, 2008. The tenure of contracts in SLB has been revised upto a maximum period of 12 months. The Approved Intermediary (Clearing corporation/ Clearing House) shall have the flexibility to decide the tenure (maximum period of 12 months). The lender / borrower have the facility of early recall / repayment of shares.

In case the borrower fails to meet the margin obligations, the Approved Intermediary (AI) shall obtain securities and square off the position of such defaulting borrower, failing which there shall be a financial close-out. In case lender recalls the securities anytime before completion of the contract, the AI on a best effort basis shall try to borrow the security for the balance period and pass it onward to the lender. The AI will collect the lending fee from the lender who has sought early recall. In case of early repayment of securities by the borrower, the margins shall be released immediately on the securities being returned by the borrower to the AI. The AI shall on a best effort basis, try to onward lend the securities and the income arising out of the same shall be passed on to the borrower making the early repayment of securities. In case AI is unable to find a new borrower for the balance period, the original borrower will have to forego lending fee for the balance period.

VII. Companies are required to have at least 50% of the non-promoter holdings in dematerialized form

In order to moderate a sharp and volatile price movements in shares of companies, to encourage better price discovery and to increase transparency in securities market, SEBI in consultation with Stock Exchanges has decided to adopt the following measures:-

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

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 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 (except for the original scrip, on which derivatives products are available or included in indices on which derivatives products are available).

    - 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.

VIII. Introduction of call auction in Pre-open session with effect from October 18, 2010.

In a bid to reduce volatility in the opening prices and introduce international standards, NSE introduced call auction mechanism - an alternative price discovery mechanism to be conducted in the pre-open session. The call auction is expected to make improvements in the Indian securities market by:

- Giving investors a choice of achieving a zero impact cost trade

- Reducing transaction costs and execution risk
- Reducing bid-offer spreads in the continuous market when any news breaks out in between close of the market on previous day and the next day's open price.

The pre-open session shall be duration of 15 minutes i.e. from 9:00 am to 9:15 am. The call auction in pre-open session will be introduced initially for securities forming part of indices CNX Nifty and SENSEX. The pre-open session is comprised of Order collection period and order matching period. The order collection period of 8* minutes shall be provided for order entry, modification and cancellation. (* - System driven random closure between 7th and 8th minute) During this period orders can be entered, modified and cancelled. The information like Indicative equilibrium / opening price of scrip, total buy and sell quantity of the scrip, indicative NIFTY Index value and percentage change of indicative equilibrium price to previous close price shall be computed based on the orders in order book and shall be disseminated during pre-open session.

Order matching period will start immediately after completion of order collection period. Order will be matched at a single (equilibrium) price which will be open price. The order matching will happen in a following sequence:

- Eligible limit orders will be matched with eligible limit orders
- Residual eligible limit orders will be matched with market orders
- Market orders will be matched with market orders

During order matching period order modification, order cancellation, trade modification and trade cancellation will not be allowed. The trade details will be disseminated to respective members before the start of normal market.

Equilibrium price determination:
In a call auction price mechanism, equilibrium price is determined as shown below. Assume that NSE received bids for particular stock xyz at different prices in between 9:00 am and 9:15 am. Based on the principle of demand supply mechanism, exchange will arrive at the equilibrium price – the price at which the maximum number of shares can be bought / sold. In below example, the opening price will be ₹ 105 where maximum 27,500 shares can be traded.

Share price (₹)	Order Book		Demand / Supply Schedule		Maximum tradable quantity
	Buy	Sell	Demand	Supply	
103	13500	11500	50500	11500	11500
104	9500	9800	37000	21300	21300
105	12000	15000	27500	36300	27500
106	6500	12000	15500	48300	15500
107	5000	12500	9000	60800	9000
108	4000	8500	4000	69300	4000

After completion of order matching there shall be a silent period to facilitate the transition from pre-open session to the normal market. All outstanding orders will be moved to the normal market retaining the original time stamp. Limit orders will be at limit price and market orders will be at the discovered equilibrium price. In a situation where no equilibrium price is discovered in the pre-open session, all market orders shall be moved to normal market at previous day’s close price or adjusted close price / base price following price time priority. Accordingly, Normal Market / Odd lot Market and Retail Debt Market will open for trading after closure of pre-open session i.e. 9:15 am. Block Trading session will be available for the next 35 minutes from the open of Normal Market.

The opening price shall be determined based on the principle of demand supply mechanism. The equilibrium price will be the price at which the maximum volume is executable. In case more than one price meets the said criteria, the equilibrium price will be the price at which there is minimum unmatched order quantity. In case more than one price has same minimum order unmatched quantity, the equilibrium price will be the price closest to the previous day’s closing price. In case the previous day’s closing price is the mid-value of pair of prices which are closest to it, then the previous day's closing price itself will be taken as the equilibrium price. In case of corporate action, previous day's closing price will be the adjustable closing price or the base price. Both limit and market orders shall reckon for computation of equilibrium price. The equilibrium price determined in pre-open session is considered as open price for the day.

In case of only market orders exists both in the buy and sell side, the market orders shall be matched at last traded price and all unmatched orders shall be shifted to the order book of the normal market at last traded price following time priority. Last traded price shall be the opening price.

In case the equilibrium price is not discovered in the pre-open session and there are no market orders to be matched at last traded price, all unmatched orders shall be shifted to the order book of the normal market following price time priority. The price of the first trade in the normal market shall be the opening price.

IX. Introduction of Smart Order Routing

SEBI has allowed Smart Order Routing which allows the brokers' trading engines to systematically choose the execution destination based on factors such as price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order. SEBI has asked stock exchanges to ensure that brokers adhere to the best execution policy while using Smart Order Routing.

Smart Order Routing facility shall be provided to all class of investors. Stock broker shall enter into a specific agreement with the client to provide Smart Order Routing facility. Broker-client agreement shall clearly describe the features of the Smart Order Routing facility and the obligations and rights associated with Smart Order Routing facility. Stock exchange shall ensure that Smart Order Routing is not used to place orders at venues other than the recognised stock exchanges. The broker server routing orders placed through Smart Order Routing system to the exchange trading system shall be located in India. In addition to that stock broker shall ensure that alternative mode of trading system is available in case of failure of Smart Order Routing facility.

X. SEBI issued Guidelines for market makers on Small and Medium Enterprise (SME) exchange

SEBI has put in a framework for setting up of new exchange or separate platform of existing stock exchange having nationwide terminals for SME. As per the framework, market making has been made mandatory in respect of all scips listed and traded on SME exchange. The Market Maker shall fulfil the following conditions to provide depth and continuity on this exchange:

- The Market Maker shall be required to provide a 2-way quote for 75% of the time in a day. The same shall be monitored by the stock exchange. Further, the Market Maker shall inform the exchange in advance for each and every black out period when the quotes are not being offered by the Market Maker.
- The minimum depth of the quote shall be ₹1,00,000/- . However, the investors with holdings of value less than ₹ 1,00,000 shall be allowed to offer their holding to the Market Maker in that scrip provided that he sells his entire holding in that scrip in one lot along with a declaration to the effect to the selling broker.
- Execution of the order at the quoted price and quantity must be guaranteed by the Market Maker, for the quotes given by him.
- There would not be more than five Market Makers for scrip. These would be selected on the basis of objective criteria to be evolved by the Exchange which would include capital adequacy, networth, infrastructure, minimum volume of business etc.

XI. Auction Session shall be conducted on T+2 day

As per extant practice, in case of default by the selling broker in a settlement, the security delivered short is bought in the auction session and is delivered to the buying broker on T+4 day. In order to reduce the time involved in delivering the shares to the buying broker, in case of default, it has been decided to conduct the auction on the same day of the settlement, after the pay-in is completed. i.e. the auction for trades done on T day shall be conducted on T+2 day after pay-in is completed and shortfall is crystallized at 2:00 pm.

However, as the bank and stock exchange holidays are not common there are days when multiple settlements are conducted on the working day immediately following the day(s) of the closure. On such days when multiple settlements are conducted on the same day, the auction session of first settlement shall be conducted on the same day and settled the next day. The auction for the second settlement (S2) shall be conducted on the next day along with the shortages/ auction of that day. The settlement of the same shall happen on the subsequent day.

Market Design[1]

Stock Exchanges

At the end of March 2010, there were 19 stock exchanges registered with SEBI having a total of 8804 registered brokers and 75378 registered sub-brokers trading on them (Annexure 4-1). The stock exchanges need to be recognized under the Securities Contracts (Regulation) Act, 1956. The SEBI has approved and notified the Corporatisation and Demutualisation Scheme of 19 Stock Exchanges. NSE since inception has adopted a demutualised structure and its model of demutualization compares well with the international models of demutualised stock exchanges as seen from. Some important features of the NSE structure are:

- It is a for-profit company, owned by Shareholders which are financial institutions which also have broking firms as subsidiaries;
- Ownership, trading rights and management are segregated;
- The Board of NSE comprises of representatives of shareholders, academics, chartered accountants, legal experts etc. Of these, 3 directors are nominated by SEBI and 3 directors are public representatives approved by SEBI.

Membership

The trading platform of a stock exchange is accessible only to trading members. They play a significant role in the secondary market by bringing together the buyers and the sellers. The brokers give buy/sell orders either on their own account or on behalf of clients. As these buy and sell order matches, the trades are executed. The exchange can admit a broker as its member only on the basis of the terms specified in the Securities Contracts (Regulation) Act, 1956, the SEBI Act 1992, the rules, circulars, notifications, guidelines, and the byelaws, rules and regulations of the concerned exchange. No stock broker or sub-broker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration from the SEBI.

Fees/Eligibility Criteria	The stock exchanges however are free to stipulate stricter requirements than those stipulated by the SEBI. The minimum standards stipulated by NSE are in excess of those laid down by the SEBI. The admission of trading members is based on various criteria like capital adequacy, track record, education, and experience. The detailed eligibility criteria for trading membership in the CM, WDM, F&O and CD segment is presented in Table- 4-2. This reflects a conscious decision of NSE to ensure quality broking services.
Corporatisation No of Brokers and Sub brokers	The authorities have been encouraging corporatisation of the broking industry. As a result, a number of brokers-proprietor firms and partnership firms have converted themselves into corporates. As of end March 2010, 4,197 brokers, accounting for 47.67%% of total brokers have become corporate entities. Amongst those registered with NSE around 89.69% of them were corporatised, followed by BSE with 82.35% corporate brokers. As at end-March 2010, there were 75,378 sub-brokers registered with SEBI, as compared with 62,471 sub-brokers as at end of previous year. NSE and BSE together constituted 98.58% of the total sub-brokers.

[1] While an attempt has been made to present market design for the entire Indian Securities Market, the trading mechanism and such other exchange–specific elements have been explained on the model adopted by NSE. The market developments have been explained, mostly for the two largest stock exchanges, viz NSE and BSE. Wherever data permits, an all-India picture has been presented.

Listing of Securities

Listing means formal admission of a security to the trading platform of a stock exchange. Listing of securities on the domestic stock exchanges is governed by the provisions in the

- Companies Act, 1956,
- Securities Contracts (Regulation) Act, 1956 (SC(R)A),
- Securities Contracts (Regulation) Rules (SC(R)R), 1957,
- Circulars/guidelines issued by Central Government and SEBI.
- Rules, bye-laws and regulations of the concerned stock exchange and by the listing agreement entered into by the issuer and the stock exchange.

A number of requirements, under the SC(R)R, the byelaws, the listing agreement have to be continuously complied with by the issuers to ensure continuous listing of its securities. The listing agreement also stipulates the disclosures that have to be made by the companies. In addition, the corporate governance practices enumerated in the agreement have to be followed. The Exchange is required to monitor the compliance with requirements. In case a company fails to comply with the requirements, then trading of its security would be suspended for a specified period, or withdrawal/ delisting, in addition to penalty as prescribed in the SC(R)A.

Key provisions of Various Acts governing the listing of securities	• The Companies Act, 1956 requires a company intending to issue securities to the public to seek permission from one or more recognised stock exchanges for its listing. If the permission is not granted by all the stock exchanges before the expiry of 10 weeks from the closure of the issue, then the allotment of securities would be void. Also, a company may prefer to appeal against refusal of a stock exchange to list its securities to the Securities Appellate Tribunal (SAT). The prospectus should state the names of the stock exchanges, where the securities are proposed to be listed. • The byelaws of the exchanges stipulates norms for the listing of securities. All listed companies are under obligation to comply with the conditions of listing agreement with the stock exchange where their securities are listed. • According to the Securities Contract Regulation Act 1956, for any security to be listed on any recognized stock exchange, it has to fulfill the eligibility criteria and comply with the regulations made by SEBI. • The Securities Contract (Regulation) Act, 1956 prescribe requirements with respect to the listing of securities on a recognised stock exchange and empowers SEBI to waive or relax the strict enforcement of any or all of requirements with respect to listing prescribed by these rules. • The listing agreement states that the issuer should agree to adhere to the agreement of listing, except for a written permission from SEBI. As a precondition for the security to remain listed, an issuer should comply with the conditions as may be prescribed by the Exchange. Further, the securities are listed on the Exchange at its discretion, as the Exchange has the right to suspend or remove from the list the said securities at any time and for any reason, which it considers appropriate. As per SEBI provision, the basic norms of listing on the stock exchanges should be uniform across the exchanges. However, the stock exchanges can prescribe additional norms over and above the minimum, which should be part of their byelaws. SEBI has been issuing guidelines/circulars prescribing certain norms to be included in the listing agreement and to be complied by the companies. The listing requirements for companies in the CM segment of NSE are presented in (Table 4-3).
Listing Fees in the CM Segment	The stock exchanges levy listing fees on the companies, whose securities are listed with them. The listing fee has two components-initial fee and annual fee. While, initial fee is a fixed amount, the annual fee varies depending upon the size of the company. as per the below table. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than ₹500 crores

would have to pay minimum fees of ₹ 3,75,000 and an additional listing fees of ₹ 2,500 for every increase of ₹ 5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than ₹ 1,000 crores would have to pay minimum fees of ₹ 6,30,000 and an additional listing fees of ₹ 2,750 for every increase of ₹ 5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc. The detailed structure of listing fee is as below:

Sr. No.	Listing Fees	Amount (₹)
1	Initial Listing Fees	25,000
2	Annual Listing Fees (based on paid up share, bond and/ or debenture and/or debt capital, etc.)	
a	Upto ₹ 1 Crore	10,000
b	Above ₹ 1 Crore and upto ₹ 5 Crores	15,000
c	Above ₹ 5 Crore and upto ₹ 10 Crores	25,000
d	Above ₹ 10 Crore and upto ₹ 20 Crores	45,000
e	Above ₹ 20 Crore and upto ₹ 30 Crores	70,000
f	Above ₹ 30 Crore and upto ₹ 40 Crores	75,000
g	Above ₹ 40 Crore and upto ₹ 50 Crores	80,000
h	Above ₹ 50 Crores and upto ₹ 100 Crores	1,30,000
i	Above ₹ 100 Crore and upto ₹ 150 Crores	1,50,000
j	Above ₹ 150 Crore and upto ₹ 200 Crores	1,80,000
k	Above ₹ 200 Crore and upto ₹ 250 Crores	2,05,000
l	Above ₹ 250 Crore and upto ₹ 300 Crores	2,30,000
m	Above ₹ 300 Crore and upto ₹ 350 Crores	2,55,000
n	Above ₹ 350 Crore and upto ₹ 400 Crores	2,80,000
o	Above ₹ 400 Crore and upto ₹ 450 Crores	3,25,000
p	Above ₹ 450 Crore and upto ₹ 500 Crores	3,75,000

Internet trading

SEBI has allowed the use of internet as an order routing system for communicating investors' orders to the exchanges through the registered brokers. These brokers should obtain the permission from their respective stock exchanges. In February 2000, NSE became the first exchange in the country to provide web-based access to investors to trade directly on the Exchange followed by BSE in March 2001. The orders originating from the PCs of investors are routed through the internet to the trading terminals of the designated brokers with whom they have relations and further to the exchange. After these orders are matched, the transaction is executed and the investors get the confirmation directly on their PCs. At the end of March 2010, a total number of 363 members were permitted to allow investor's web based access to NSE's trading system. The members of the exchange in turn had registered 5,143,705 clients for web based access as on March 31, 2010. During the year 2009-10, 11.13% of the trading value in the Capital Market segment (₹ 921,380 - US $ 204,116 million) was routed and executed through the internet.

Trading Regulations

Insider Trading

Insider Trading is considered as an offence and is hence prohibited as per the SEBI (Prohibition of Insider Trading) Regulations, 1992. The same was amended in the year 2003. The act prohibits an insider from dealing (on his behalf or on behalf of any other person) in securities of a company listed on any stock exchange, when in possession of any unpublished price sensitive information. Further, it has also prohibited any insider from communicating, counseling or procuring 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. 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 information like periodical financial results of the company, intended declaration of dividends (both interim and final), issue of securities or buy-back of securities, any major expansion plans or execution of new projects, amalgamation, merger or takeovers, disposal of the whole or substantial part of the undertaking and significant changes in policies, plans or operations of the company. SEBI is empowered to investigate on the basis of any complaint received from the investors, intermediaries or any other person on any matter having a bearing on the allegations of insider trading.
Unfair Trade Practices	The SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to the Securities Market) Regulations 2003 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. The regulations specifically prohibit fraudulent dealings, market manipulations, misleading statements to induce sale or purchase of securities, unfair trade practices relating to securities. When SEBI has reasonable ground to believe that the transaction in securities are being dealt with in a manner detrimental to the investor or the securities market in violation of these regulations and when any intermediary has violated the rules and regulations under the act, then it can order to investigate the affairs of such intermediary or persons associated with the securities market. Based on the report of the investigating officer, SEBI can initiate action for suspension or cancellation of registration of an intermediary.

Takeovers

The restructuring of companies through takeover is governed by SEBI (Substantial Acquisition of shares and Takeover) Regulations, 1997. These regulations were formulated so that the process of acquisition and takeovers is carried out in a well-defined and orderly manner following the fairness and transparency.

The SEBI (Substantial Acquisition of shares and Takeover) Regulations, 1997	In context of this regulation '**acquirer**' is defined as a person who directly or indirectly acquires or agrees to acquire shares or voting rights in the target company or acquires or agrees to acquires '**control'** over the target company, either by himself or with any person acting in concert with the acquirer. The term '**control**' includes right to appoint majority of the directors or to control the management or policy decisions exercisable by any 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. This implies that where there are two or more persons in control over the target company, the cesser of any one of such persons from such control should not be deemed to be in control of management.
Chapter II 'Disclosures of shareholding and control in a listed company' of the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997	Certain categories of persons are required to disclose their shareholding and/or control in a listed company to that company. Such companies, in turn, are required to disclose such details to the stock exchanges where shares of the company are listed. In case of acquisition of 5 percent and more share or voting rights of a company, an acquirer would have to disclose at every stage the aggregate of his shareholding or voting rights in that company to the company and to the stock exchange where shares of the target company are listed. No acquirer either by himself or through/ with persons acting in concert with him should acquire, additional shares or voting rights unless such acquirer makes a public announcement to acquire shares in accordance with the regulations. As per the regulations, the mandatory public offer is triggered on: Limit of 15 percent or more but less than 55 percent of the shares or voting rights in a company. Limit of 55 percent or more but less than 75 percent of the shares. In a case where the target company had obtained listing of its shares by making an offer of at least ten percent of issue size to the public in terms of the relevant clause mentioned in the Securities Contracts (Regulations) Rules 1957 or in terms of any relaxation granted from strict enforcement of the said rule, then the limit would be 90 percent instead of 75 percent. Further, if the acquire (holding 55% more but less than 75 percent) is desirous of consolidating his holding while ensuring that the public shareholding in

	the target company does not fall below the minimum level permitted in the listing agreement, he may do so only by making a public announcement in accordance with these regulations. Irrespective of whether or not there has been any acquisition of shares or voting rights in a company, no acquirer should acquire control over the target company, unless such person makes a public announcement to acquire shares and acquires such shares in accordance with the regulations. The regulations give enough scope for existing shareholders to consolidate and also cover the scenario of indirect acquisition of control. The applications for takeovers are scrutinised by the Takeover Panel constituted by the SEBI.
Buy Back	Buy Back is done by the company with the purpose to improve liquidity in its shares and enhance the shareholders' wealth. Under the SEBI (Buy Back of Securities) Regulations, 1998, a company is permitted to buy back its shares or other specified securities by any of the following methods:- ▪ From the existing security holders on a proportionate basis through the tender offer ▪ From the open market through (i) book building process (ii) stock exchange ▪ From odd-lot holders. The company has to disclose the pre and post-buy back holding of the promoters. To ensure completion of the buy back process speedily, the regulations have stipulated time limit for each step. For example in the cases of purchases through tender offer an offer for buy back should not remain open for more than 30 days. The company should complete the verifications of the offers received within 15 days of the closure of the offer and shares or other specified securities. The payment for accepted securities has to be made within 7 days of the completion of verification and bought back shares have to be extinguished and physically destroyed within 7 days of the date of the payment. Further, the company making an offer for buy back will have to open an escrow account on the same lines as provided in takeover regulations.
Circuit Breakers	Volatility in stock prices is a cause of concern for both the policy makers and the investors. To curb excessive volatility, SEBI has prescribed a system of circuit breakers. The circuit breakers bring about a nation-wide coordinated halt in trading on all the equity and equity derivatives markets. An index based market-wide circuit breaker system applies at three stages of the index movement either way at 10%, 15% and 20%. The breakers are triggered by movement of either Nifty 50 or Sensex, whichever is breached earlier. Further, the NSE views entries of non-genuine orders with utmost seriousness as this has market-wide repercussion. It may suo-moto cancel the orders in the absence of any immediate confirmation from the members that these orders are genuine or for any other reason as it may deem fit. As an additional measure of safety, individual scrip-wise price bands has been fixed as below: • Daily price bands of 2% (either way) on a set of specified securities, • Daily price bands of 5% (either way) on a set of specified securities, • Price bands of 20% (either way) on all remaining securities (including debentures, warrants, preference shares etc which are traded on CM segment of NSE), • Daily price bands of 10% (either way) on specified securities, • No price bands are applicable on scrips on which derivative products are available or on scrips included in indices on which derivatives products are available. For auction market the price bands of 20% are applicable. In order to prevent members from entering orders at non-genuine prices in these securities, the Exchange has fixed operating range of 20% for such securities.

Demat Trading	A depository holds securities in dematerialized form. It maintains ownership records of securities in a book entry form, and also effects transfer of ownership through book entry. Though, the investors have a right to hold securities in either physical or demat form, SEBI has made it compulsory that trading in securities should be only in dematerialised form. This was initially introduced for institutional investors and was later extended to all investors. Starting with twelve scrips on January 15, 1998, all investors are required to mandatorily trade in dematerialized form. The companies, which fail to establish connectivity with both the depositories on the scheduled date as announced by SEBI, then their securities are traded on the 'trade for trade' settlement window of the exchanges.
Statistics: NSDL & CDSL	At the end of March 2010, the number of companies connected to NSDL and CDSL were 8,124 and 6,805 respectively. The number of dematerialised securities have increased from 353.69 billion at the end of March 2009 to 429.09 billion at the end of March 2010. However, during the same period the value of dematerialised securities has increased by 82.01% from ₹ 35,463 billion to ₹ 64,545 billion. Since the introduction of the depository system, dematerialisation has progressed at a fast pace and has gained acceptance amongst the market participants. All actively traded scrips are held, traded and settled in demat form. The details of progress in dematerialisation in two depositories, *viz.* NSDL and CDSL, as at the end of March 2010 and September 2010 are presented in (Table 4-4). The Depositories in India provide depository services to investors through Depository Participants (DPs). The Depositories do not charge the investors directly, but charge their DPs who in turn charge the clients. DPs are free to have their own charge structure for their clients. However, as per SEBI directive, DPs cannot charge investors towards opening of a Beneficiary Owner (BO) account (except statutory charges), credit of securities into BO account and custody charges. It may be added that the depositories have been reducing its charges along with the growth in volumes.
Charges for *Services*	As per SEBI Regulations, every stockbroker, on the basis of his total turnover, is required to pay annual turnover charges, which are to be collected by the stock exchanges. In order to share the benefits of efficiency, NSE has been reducing the transaction charges over a period of time. A member was required to pay the exchange, transaction charges at the rate of 0.0035% (₹ 3.5 per ₹ 1 lakh) of the turnover till September, 2009. NSE has, with effect from October, 2009, changed the transaction charges structure to a slab based one, as below:

Total Traded Value in a month	Revised Transaction Charges (₹ per lakh of Traded Value)
Up to First ₹ 1250 cores	₹ 3.25 each side
More than ₹ 1250 crores up to ₹ 2500 crores (on incremental volume)	₹ 3.20 each side
More than ₹ 2500 crores up to ₹ 5000 crores (on incremental volume)	₹ 3.15 each side
More than ₹ 5000 crores up to ₹ 10000 crores (on incremental volume)	₹ 3.10 each side
More than ₹ 10000 crores up to ₹ 15000 crores (on incremental volume)	₹ 3.05 each side
Exceeding ₹ 15000 crores (on incremental volume)	₹ 3.00 each side

Trading members are also required to pay securities transaction tax (STT) on all delivery based transaction at the rate of 0.125% (payable by both buyer and seller) and in case of non-delivery transactions at the rate of 0.025% for equities payable by the seller only).

	The maximum brokerage chargeable by trading member in respect of trades effected in the securities admitted to dealing on the CM segment of the Exchange is fixed at 2.5% of the contract price, exclusive of statutory levies like, securities transaction tax, SEBI turnover fee, service tax and stamp duty. However, the brokerage charges as low as 0.15% are also observed in the Market. Stamp duties are payable as per the rates prescribed by the relevant states. In Maharashtra, for brokers having registered office in Maharashtra, it is charged at @ Re. 1 for every ₹ 10,000 or part thereof (i.e. 0.01%) of the value of security at the time of purchase/sale as the case may be. However, if the securities are not delivered, it is levied at @ 20 paise for every ₹ 10,000 or part thereof (i.e. 0.002%). As per the Finance Bill, 2008 Stock Exchanges and Clearing House Services are being charged a service tax on services rendered by them in relation to assisting, regulating or controlling the business of buying, selling or dealing in securities and including services provided in relation to trading, processing, clearing and settlement of transactions in securities, goods and forward contracts w.e.f 16th May, 2008.
Institutional Trades	Trades by Mutual Funds (MFs) and Foreign Institutional Investors are termed as Institutional trades. Transactions by MFs in the secondary market are governed by SEBI (Mutual Funds) Regulations, 1996. A MF under all its schemes is not allowed to own more than 10% of any company's paid up capital. They are allowed to do only 'delivery-based' transactions. With effect from 21st April, 2008 a MF may engage in short selling of securities in accordance with the framework relating to short selling and securities lending and borrowing specified by SEBI. A MF cannot invest more than 10% of the NAV of a particular scheme in the equity shares or equity related instruments of a single company. The investments by FIIs are governed by the rules and regulations of the RBI and the SEBI. As per the RBI guidelines, total holding of each FII/sub-accounts should not exceed 10% of the total paid up capital or paid up value of each series of convertible debentures. Further total holding of all the FIIs/sub- accounts put together should not exceed 24% of the paid up capital or paid up value of each series of convertible debentures. This limit of 24% can be increased to the sectoral cap / statutory limit as applicable to the Indian company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body.

Table 4-2 A: Eligibility Criteria for Membership -- CORPORATES

(Amount in ₹ 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)*

Contd.

Contd.

Particulars/ Segments	CM	CM and F&O	WDM	CM and WDM	CM,WDM and F&O
Interest Free Security Deposit (IFSD) with NSEIL	85	110	150	235	260
Collateral Security Deposit (CSD) with NSEIL	NIL	NIL	NIL	NIL	NIL
Interest Free Security Deposit (IFSD) with NSCCL	15	15 *	NIL	15	15 *
Collateral Security Deposit (CSD) 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 ₹ 300 lakhs. Further, a Professional Clearing member needs to bring IFSD of 25 lakhs with NSCCL and Collateral Security Deposit (CSD) of 25 lakhs with NSCCL as deposits.

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

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

In addition, a member clearing for others is required to bring in IFSD of ₹ 2 lakh and CSD of ₹ 8 lakh per trading member he undertakes to clear in the F&O segment.

Table 4-2 B: Requirements for Professional Clearing Memberhip

(All values in ₹ lakh)

Particulars	CM Segment	F&O Segment	CM and F&O Segment
Eligibility	Trading Member of NSE/SEBI Registered Custodians/Recognised Banks		
Net Worth	300	300	300
Interest Free Security Deposit (IFSD) *	25	25	34
Collateral Security Deposit (CSD)	25	25	50
Annual Subscription	2.5	Nil	2.5

** The Professional Clearing Member (PCM) is required to bring in IFSD of ₹ 2 lakh and CSD of ₹ 8 lakh per trading member whose trades he undertakes to clear in the F&O segment and IFSD of ₹ 6 lakh and CSD of ₹ 17.5 lakh (₹ 9 lakh and ₹ 25 lakh respectively for corporate Members) per trading member in the CM segment.*

Contd.

Table 4-2 C: Eligibility Criteria for Membership- Individuals/ Partnership Firms.

(Amount in ₹ 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
Collateral Security Deposit (CSD) with NSEIL	NIL	NIL	NIL	NIL	NIL
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

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

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

Table 4-2 D: CURRENCY DERIVATIVES- Corporates, Individuals and Firms

(Amount in ₹ lakh)

Particulars	**NSE Members**		**NCDEX Members**		**New Applicants**
	Trading Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Clearing Membership	Trading Membership
Networth	100	1000	100	1000	100
Cash to NSEIL	2	2	2	2	2
Non Cash to NSEIL	8	8	10.5	13	13
Cash to NSCCL	NIL	25	NIL	25	NIL
Non cash to NSCCL	NIL	25	NIL	25	NIL
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	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination

Contd.

Contd.

Particulars	NSE Members		NCDEX Members		New Applicants
	Trading Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Clearing Membership	Trading Membership
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.				

In case the member is opting for membership of any other segment(s) in combination with the membership of Currency Derivatives segment, the applicable net worth will be the minimum net worth required for the other segment(s) or the minimum net worth required for Currency Derivatives Segment, whichever is higher.

The eligibility condition for applicants planning to apply for new membership of the Exchange is that either the proprietor/one designated director/partner or the Compliance Officer of the applicant entity should be successfully certified either in Securities Market (Basic) Module or Compliance Officers (Brokers) Module or the relevant module pertaining to the segments wherein membership of the Exchange had been sought.

Table 4-3: Listing Criteria for Companies on the CM Segment of NSE

Criteria	Initial Public Offerings (IPOs)	Companies listed on other exchanges
Paid-up Equity Capital (PUEC)/Market Capitalisation (MC) /Net Worth	PUEC ≥ ₹ 10 cr. and MC ≥ ₹ 25 cr.	PUEC ≥ ₹ 10 cr. and MC ≥ ₹ 25 cr. OR PUEC ≥ ₹ 25 cr. OR MC ≥ ₹ 50 cr. OR The company shall have a net worth of not less than ₹ 50 crores in each of the preceding financial years.
Company/ Promoter's Track Record	Atleast 3 years track record of either a) the applicant seeking listing OR b) the promoters/promoting company incorporated in or outside India OR c) Partnership firm and subsequently converted into Company not in existence as a Company for three years) and approaches the Exchange for listing. The Company subsequently formed would be considered for listing only on fulfillment of conditions stipulated by SEBI in this regard.	Atleast three years track record of either a) the applicant seeking listing; OR b) the promoters/promoting company, incorporated in or outside India.
Dividend Record / Net worth / Distributable Profits	--	Dividend paid in at least 2 out of the last 3 financial years immediately preceding the year in which the application has been made OR The networth of the applicants atleast ₹50 crores OR The applicant has distributable profits in at least two out of the last three financial years.
Listing		Listed on any other stock exchange for at least last three years OR listed on the exchange having nationwide trading terminals for at least one year.
Other Requirements	(a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs. (b) Satisfactory redressal mechanism for investor grievances, (c) distribution of shareholding and (d) details of llitigation record in past 3 years (e) Track record of Directors of the Company	(a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs. (b) Satisfactory redressal mechanism for investor grievances, (c) distribution of shareholding and (d) details of llitigation record in past 3 years (e) Track record of Directors of the Company (f) Change in control of a Company/Utilisation of funds raised from public

Contd.

Contd.

Note:

1. (a) *In case of IPOs, Paid up Equity Capital means post issue paid up equity capital.*
   (b) *In case of Existing companies listed on other exchanges, the existing paid up equity capital as well as the paid up equity capital after the proposed issue for which listing is sought shall be taken into account.*
2. (a) *In case of IPOs, market capitalisation is the product of the issue price and the post-issue number of equity shares.*
   (b) *In case of case of Existing companies listed on other stock exchanges the market capitalisation shall be calculated by using a 12 month moving average of the market capitalisation over a period of six months immediately preceding the date of application. For the purpose of calculating the market capitalisation over a 12 month period, the average of the weekly high and low of the closing prices of the shares as quoted on the National Stock Exchange during the last twelve months and if the shares are not traded on the National Stock Exchange such average price on any of the recognised Stock Exchanges where those shares are frequently traded shall be taken into account while determining market capitalisation after making necessary adjustments for Corporate Action such as Rights / Bonus Issue/Split.*
3. *In case of Existing companies listed on other stock exchanges, the requirement of ₹25 crores market capital shall not be applicable to listing of securities issued by Government Companies, Public Sector Undertakings, Financial Institutions, Nationalised Banks, Statutory Corporations and Banking Companies who are otherwise bound to adhere to all the relevant statutes, guidelines, circulars, clarifications etc. that may be issued by various regulatory authorities from time to time*
4. *Net worth means paid-up equity capital + reserves excluding revaluation reserve - miscellaneous expenses not written off - negative balance in profit and loss account to the extent not set off.*
5. *Promoters mean one or more persons with minimum 3 years of experience of each of them in the same line of business and shall be holding at least 20% of the post issue equity share capital individually or severally.*
6. *In case a company approaches the Exchange for listing within six months of an IPO, the securities may be considered as eligible for listing if they were otherwise eligible for listing at the time of the IPO. If the company approaches the Exchange for listing after six months of an IPO, the norms for existing listed companies may be applied and market capitalisation be computed based on the period from the IPO to the time of listing.*

Table 4-4: Progress of Dematerialisation: NSDL & CDSL as at the end of the period.

Parameters of Progress	NSDL				CDSL			
	Mar-08	Mar-09	Mar-10	Sep-10	Mar-08	Mar-09	Mar-10	Sep-10
Companies - Agreement signed	7,354	7,801	8,124	8,514	5,943	6,213	6,975	7,392
Companies - Available for Demat	7,354	7,801	8,124	8,514	5,943	6,213	6,975	7,392
Market Cap. of Companies available (₹bn.)	52,197	31,103	61,843	71,363	51,626	31,437	62,196	73,363
Number of Depository Participants	251	275	286	288	420	468	490	521
Number of DP Locations	7,204	8,777	11,170	12,042	6,372	6,934	8,590	9,735
No. of Investor Accounts	9,372,335	9,685,568	1,05,84,868	1,09,50,604	4,798,222	5,527,479	6,585,746	6,986,061
Demat Quantity (mn.)	236,897	282,270	351,138	407,719	49,820	70,820	77,950	87,040
Demat Value (₹ bn.)	43,770	31,066	56,178	65,485	5,900	4,397	8,367	9,782

Source: NSDL & CDSL.

Index Services

A stock index consists of a set of stocks that are representative of either the whole market, or a specified sector. It helps to measure the change in overall behaviour of the markets or sector over a period of time. Many indices are cited by news or financial services firms and are used to benchmark the performance of portfolios such as mutual funds.

NSE and CRISIL, have jointly promoted the India Index Services & Products Limited (IISL). The IISL provides stock index services by developing and maintaining an array of indices for stock prices. It has a licensing and marketing agreement with Standard and Poor's (S&P), the world's leading provider of investible equity indices, for co-branding equity indices. IISL maintains a number of equity indices comprising broad-based benchmark indices, sectoral indices and customised indices. They are maintained professionally to ensure that it continues to be a consistent benchmark

Table 4-5: Capital Market Market Turnover on Stock Exchanges in India

	Stock Exchanges	Capital Market Turnover								Share in Turnover (%)			
		2007-08		2008-09		2009-10		Apr'10 - Sep'10					
		(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	2007-08	2008-09	2009-10	Apr'10 - Sep'10
1	NSE	35,510,380	888,426	27,520,230	540,142	41,380,230	916,709	17,677,130	393,525	69.21	71.43	75.01	75.04
2	BSE	15,788,570	395,011	11,000,740	215,912	13,788,090	305,452	5,878,250	130,860	30.77	28.55	24.99	24.96
3	Calcutta	4460	112	3930	77	0	-	0	0	0.01	0.01	0.00	0.00
4	Uttar Pradesh	4,750	119	890	17	250	6	10	0	0.01	0.0023	0.00	0.00
5	Ahmedabad	0	0	0	0	0	0	0	0	0	0	0.00	0.00
6	Delhi	0	0	0	0	0	0	0	0	0	0	0.00	0.00
7	Pune	0	0	0	0	0	0	0	0	0	0	0.00	0.00
8	Ludhiana	0	0	0	0	0	0	0	0	0	0	0.00	0.00
9	Bangalore	0	0	0	0	0	0	0	0	0	0	0.00	0.00
10	ICSE	0	0	0	0	0	0	0	0	0	0	0.00	0.00
11	Madras	0	0	0	0	0	0	0	0	0	0	0.00	0.00
12	Madhya Pradesh	0	0	0	0	0	0	0	0	0	0	0.00	0.00
13	Vadodara	0	0	0	0	0	0	0	0	0	0	0.00	0.00
14	OTCEI	0	0	0	0	0	0	0	0	0	0	0.00	0.00
15	Gauhati	0	0	0	0	0	0	0	0	0	0	0.00	0.00
16	Cochin	0	0	0	0	0	0	0	0	0	0	0.00	0.00
17	Bhubaneshwar	0	0	0	0	0	0	0	0	0	0	0.00	0.00
18	Coimbatore	0	0	0	0	0	0	0	0	0	0	0.00	0.00
19	Jaipur	0	0	0	0	0	0	0	0	0	0	0.00	0.00
	Total	**51,308,160**	**1,283,667**	**38,525,790**	**756,149**	**55,168,570**	**1,222,166**	**23,555,390**	**524,385**	**100**	**100**	**100**	**100**

Source: SEBI

Table 4-6: Stock Market Indicators - Monthly Trends on NSE and BSE

Month	Turnover				Average Daily Turnover				Market Capitalisation (end of period)			
	NSE		BSE		NSE		BSE		NSE		BSE	
	₹ mn	US $ mn	₹ mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn
2007-08	**35,510,382**	**888,426**	**15,788,552**	**395,010**	**141,476**	**3,540**	**62,903**	**1,574**	**48,581,217**	**1,215,442**	**51,380,140**	**1,285,468**
Apr-08	2,712,269	53,234	1,154,543	22,660	135,613	2,662	57,730	1,133	54,427,796	1,068,259	57,942,920	1,137,251
May-08	2,779,229	54,548	1,216,701	23,880	138,961	2,727	60,840	1,194	50,988,729	1,000,760	54,288,780	1,065,531
Jun-08	2,644,282	51,900	1,136,046	22,297	125,918	2,471	54,100	1,062	41,036,509	805,427	43,750,210	858,689
Jul-08	2,958,162	58,060	1,239,160	24,321	128,620	2,524	53,880	1,058	44,324,270	869,956	47,325,440	928,860
Aug-08	2,342,507	45,977	999,240	19,612	117,130	2,299	49,960	981	44,724,610	877,814	47,788,640	937,952
Sep-08	2,622,612	51,474	1,080,900	21,215	124,890	2,451	51,470	1,010	39,001,850	765,493	41,653,870	817,544
Oct-08	2,161,984	42,433	782,270	15,354	108,100	2,122	39,110	768	28,203,880	553,560	29,972,590	588,275
Nov-08	1,731,228	33,979	636,940	12,501	96,180	1,888	35,390	695	26,532,810	520,762	28,189,640	553,280
Dec-08	2,129,560	41,797	808,660	15,872	101,410	1,990	38,510	756	29,167,680	572,477	31,447,670	617,226
Jan-09	1,911,835	37,524	705,100	13,839	95,590	1,876	35,250	692	27,987,070	549,305	29,995,250	588,719
Feb-09	1,498,575	29,413	543,300	10,663	78,870	1,548	28,590	561	26,756,220	525,147	28,628,710	561,898
Mar-09	2,027,985	39,803	697,890	13,698	101,400	1,990	34,890	685	28,961,940	568,438	30,860,750	605,707
2008-09	**27,520,230**	**540,142**	**11,000,750**	**215,913**	**113,250**	**2,223**	**45,270**	**889**	**28,961,940**	**568,438**	**30,860,750**	**605,707**
Apr-09	2,666,960	55,713	889,430	18,580	156,880	3,277	52,320	1,093	33,750,250	705,040	35,869,780	749,316
May-09	3,825,610	79,917	1,285,420	26,852	191,280	3,996	64,270	1,343	45,645,720	953,535	48,650,450	1,016,304
Jun-09	4,824,140	100,776	1,591,950	33,256	219,280	4,581	72,360	1,512	44,325,960	925,965	47,499,340	992,257
Jul-09	4,261,429	89,021	1,389,860	29,034	185,280	3,870	60,430	1,262	48,164,590	1,006,154	51,399,420	1,073,729
Aug-09	3,649,688	76,242	1,223,190	25,552	173,795	3,631	58,250	1,217	49,757,998	1,039,440	52,856,570	1,104,169
Sep-09	3,650,631	76,261	1,242,200	25,949	182,532	3,813	62,110	1,297	53,538,796	1,118,421	57,083,370	1,192,466
Oct-09	3,629,688	75,824	1,140,070	23,816	181,484	3,791	57,000	1,191	50,248,302	1,049,683	53,759,200	1,123,025
Nov-09	3,244,768	67,783	1,051,420	21,964	162,238	3,389	52,570	1,098	54,300,880	1,134,340	57,952,090	1,210,614
Dec-09	2,929,004	61,187	980,820	20,489	139,476	2,914	46,710	976	56,996,368	1,190,649	60,813,080	1,270,380
Jan-10	3,384,426	70,700	1,170,840	24,459	178,128	3,721	61,620	1,287	57,829,647	1,208,056	59,257,250	1,237,879
Feb-10	2,451,434	51,210	825,100	17,236	122,572	2,561	41,250	862	57,553,054	1,202,278	59,049,290	1,233,534
Mar-10	2,862,455	59,796	997,790	20,844	136,307	2,847	47,510	992	60,091,732	1,255,311	61,656,190	1,287,992
2009-10	**41,380,234**	**864,429**	**13,788,090**	**288,032**	**169,591**	**3,543**	**56,510**	**1,180**	**60,091,732**	**1,255,311**	**61,656,190**	**1,287,992**
Apr-10	2,765,655	61,568	939,290	20,910	138,283	3,078	46,960	1,045	61,178,575	1,361,945	62,831,960	1,398,752
May-10	2,846,249	63,363	866,800	19,297	129,375	2,880	39,400	877	59,325,783	1,320,699	60,912,640	1,356,025
Jun-10	2,861,092	63,693	924,930	20,591	130,050	2,895	42,040	936	62,291,356	1,386,718	6,394,001	142,342
Jul-10	2,785,508	62,010	929,570	20,694	126,614	2,819	42,250	941	63,401,199	1,411,425	6,510,777	144,942
Aug-10	3,119,937	69,455	1,128,820	25,130	141,815	3,157	51,310	1,142	63,934,175	1,423,290	65,620,250	1,460,825
Sep-10	3,298,687	73,435	1,088,850	24,240	157,080	3,497	51,850	1,154	69,585,335	1,549,095	71,258,070	1,586,333
Apr'10 - Sep'10	**17,677,127**	**393,525**	**5,878,250**	**130,860**	**137,032**	**3,051**	**45,570**	**1,014**	**69,585,335**	**1,549,095**	**71,258,070**	**1,586,333**

Source : SEBI

of the equity markets, which involves inclusion and exclusion of stocks in the index, day-to-day tracking and giving effect to corporate actions on individual stocks. Many investment and risk management products based on IISL indices have been developed in the recent past, within India and abroad. These include index based derivatives traded on NSE, Singapore Exchange (SGX) and Chicago Mercantile Exchange (CME) and a number of index funds and exchange traded funds.

Some of the important indices of NSE, which are largely tracked by investors are:

Indices	Particulars	Base date of the Index
S&P CNX NIFTY (NIFTY 50)	Blue chip index of NSE which is most popular and widely used stock market indicator in the country. It consists of diversified 50 stocks index accounting for 23 sectors of the economy and accounts for 63% of the Free Float Market Capitalization of NSE as on Dec 31, 2010.	November 3, 1995
CNX Nifty Junior	This index contains the next rung of liquid securities after Nifty 50. The maintenance of the Nifty 50 and the CNX Nifty Junior are synchronised so that the two indices will always be disjoint sets. This index accounts for about 11.61% of the Free Float Market Capitalization of NSE as on Dec 31, 2010.	November 3, 1996
CNX 100	This is a diversified 100 stock index accounting for 35 sector of the economy, which is a combination of the Nifty 50 and CNX Nifty Junior. CNX 100 represents about 74% of the Free Float market capitalization as on Dec 31, 2010.	January 1, 2003
S&P CNX 500	This is India's first broad-based benchmark of the Indian capital market and helps in comparing portfolio returns vis-a-vis market returns. It represents about 92.27% of the Free Float Market Capitalization and about 81.52% of the total turnover on the NSE as on December 31, 2010. Industry weightages in the index reflect the industry weightages in the market. For e.g. if the banking sector has a 5% weightage in the universe of stocks traded on NSE, banking stocks in the index would also have an approximate representation of 5% in the index	1994
Nifty Midcap 50 and CNX Midcap	The primary objective of the Nifty Midcap 50 Index and CNX Midcap is to capture the movement of the midcap segment of the market segment which is being increasingly perceived as an attractive investment segment with high growth potential	January 1, 2004 January 1, 2003

Besides the above, IISL also has a number of sectoral indices which reflect the share market trend of these particular sectors. These include, CNX IT Index, CNX Bank Index, CNX FMCG Index, CNX PSE Index, CNX MNC Index, CNX Service Sector Index, S&P CNX Industry Indices, CNX Energy Index, CNX Pharma Index, CNX Infrastructure Index, CNX PSU BANK Index, CNX Realty Index etc.

CNX Dividend Opportunities Index:

The CNX Dividend Opportunities Index is designed to provide exposure to high yielding companies listed on NSE while meeting stability and tradability requirements. The CNX Dividend Opportunities Index comprises of 50 companies. The methodology employs a yield driven selection criteria that aims to maximize yield while providing stability and tradability. Currently the index comprises of companies from 24 different sectors. The index is capped at stock level of 10% i.e. no individual stock can have weightage of more than 10% in the index at any given point of time. CNX Dividend Opportunities Index represents about 13% of the free float market capitalization of the companies listed on NSE and 40% of the free float market capitalization of the companies forming part of the Dividend Opportunities eligible universe.

Source : NSE

The criteria for the CNX Dividend Opportunities Index include the following:

a) Companies must rank within the top 500 companies ranked by average free-float market capitalization and aggregate turnover for the last six months.

b) Earnings growth over 3 years must be positive.

c) Companies should have a positive Net worth as per latest annual audited results.

d) Companies must have reported net profit as per latest annual audited results.

e) Top 50 companies ranked by Annual Dividend Yield will form part of the index.

f) The maximum weightage of each company in the index shall be 10%.

g) In order to reduce the turnover of constituents that form part of the index, a buffer of 100% of total number of index constituents shall be applied at the time of each review. This means that if the existing constituent at the time of the review ranks within the top 100 rank, the same can be retained in the index.

Index and Exchange Traded Funds today are a source of investment for investors looking at a long term, less risky form of investment. The success of index funds depends on their low volatility and therefore the choice of the index. IISL's indices are used by a number of well known mutual funds in India for promoting Index Funds. Most ETFs charge lower annual expenses than index mutual funds. The first ETF in India, "Nifty BeEs (Nifty Benchmark Exchange Traded Scheme) based on S&P CNX Nifty, was launched in January 2002 by Benchmark Mutual Fund.

In continuation of its efforts to develop indices that meet the requirements of market participants, IISL has launched CNX Smallcap Index. The CNX Smallcap Index is designed to reflect the behaviour and performance of the small capitalised segment of the financial market. The index is calculated using free float market capitalisation methodology with a base date of January 1, 2004 indexed to a base value of 1000. The index will be maintained by IISL and the review will be carried out on a semi-annual basis.

E. Market Outcome

Turnover and Market Capitalisation - Growth

Trading volumes in the equity segments of the stock exchanges have witnessed a phenomenal growth over the last few years. The trading volumes saw a considerable increase in late 1990's. The compounded annual growth rate of trading volumes on all the stock exchanges taken together has been 12.27% over the period 2001-02 to 2009-10.

NSE and BSE, were the only two stock exchange which reported significant trading volumes. With the exception of Uttar Pradesh Stock Exchange, all other stock exchanges did not report any trading volumes during 2009-10 and 2010-11 (Apr-Sep). NSE consolidated its position as the market leader by contributing 75.01% of the total turnover in India in 2009-10 and 75.04% in first two quarter of 2010-11. Since its inception in 1994, NSE has emerged as the favoured exchange among trading members. The consistent increase in popularity of NSE is clearly evident from Annexure 4-2, which presents the business growth of CM segment of NSE. Not only in the national arena, but also in the international markets, NSE has been successful in creating a niche for itself.

Looking at trends in turnover in NSE and BSE over 2007-08 to latest first half of 2010-11 (Table 4-5), one finds that 2009-10 saw upsurge in turnover on the exchanges, mainly on account of recovery of the global financial markets. The turnover on the NSE rose by 50.36% in 2009-10 compared with 2008-09 and that on the BSE it rose by 25.34% over the same period. The average daily turnover on the NSE stood at US $ 3.5 billion in 2009-10 compared to US $ 2.0 billion in 2008-09. Though the average daily turnover on the BSE rose to US $ 1.1 billion in 2009-10 from 0.89 billion in the previous year, it is still below the average daily turnover of US $ 1.6 billion recorded in 2007-08.

According to the WFE statistics, in terms of number of trades in equity shares, NSE ranks fourth with 1,630,438 thousands of trades as end of December 2009 and third with 1,140,580 thousands of trades during January 2010 to September 2010. The trade details of the top ranked stock exchanges are presented in Table 4-7.

Table 4-7: Total Number of Trades in Equity Shares (in thousands)

Exchange	End December 2008	End December 2009	End September 2010
Nasdaq	3,779,392	3,996,426	1,395,735
NYSE Euronext (US)	4,050,573	2,744,355	1,603,539
Shanghai Stock Exchange	1,278,881	2,142,611	1,118,041
NSE	1,368,050	1,630,438	1,140,580
Shenzhen SE	658,047	1,256,007	897,062
Korea Exchange	641,754	909,418	666,704

Source : WFE Reports

As the trends in turnover showed a jump in 2009-10 compared to 2008-09, the same was the case with market capitalization for securities available for trading on the equity segment of NSE and BSE. After witnessing enormous growth during 2007-08 in comparison to 2006-07, 2008-09 saw a fall in market capitalization followed by jump in 2009-10 over 2008-09 levels (Table 4-5). The market capitalization of NSE, which as at end March 2008 amounted to ₹ 48,581,217 million (US $ 1,215 billion), were down to ₹ 28,961,940 million (US $ 568 billion) on the NSE as at end March 2009. As at end September 2010, there has been some increase in market capitalization to US $ 1,549 billion from US $ 1,255 billion for NSE as at end of March 2010.

World Traded Value and market capitalization

In 2009, United States ranked first in terms of traded value of US $ 46,736 billion and also in terms of market capitalization of US $ 15,077 billion. China ranked second with the traded value of US $ 8,956 billion followed by Japan and then United Kingdom. In terms of market capitalization, China was at second slot with a market capitalization of US $ 5,008 billion, followed by Japan. India ranked eleventh both in terms of traded value (US $ 1,089 billion) and market capitalization (US $ 1,179 billion) for 2009 (Table 4-7).

Table 4-8: Top 20 countries by Value Traded and market capitalisation, 2009

Rank	Country	Total Value Traded (US$ millions)	Country	Total market capitalisation (USD mn)
1	United States	46,735,935	United States	15,077,286
2	China	8,956,188	China	5,007,646
3	Japan	4,192,624	Japan	3,288,793
4	United Kingdom	3,402,496	United Kingdom	2,796,444
5	Spain	1,599,262	Hongkong	2,291,578
6	Korea	1,581,487	France	1,972,040
7	Hongkong	1,489,635	Canada	1,680,958
8	France	1,365,807	Germany	1,297,568
9	Germany	1,288,867	Spain	1,297,227
10	Canada	1,239,626	Australia	1,258,456
11	India	1,088,889	India	1,179,235
12	Taiwan	1,066,132	Brazil	1,167,335
13	Switzerland	795,556	Switzerland	1,070,694
14	Australia	761,820	Russia	861,424
15	Russia	682,540	Korea	836,462
16	Brazil	649,187	South Africa	704,822
17	Netherlands	604,159	Taiwan	695,865
18	Italy	459,728	Netherlands	542,533
19	Sweden	390,324	Sweden	432,296
20	South Africa	342,502	Mexico	340,565

Source: S&P Global Stock Markets Factbook 2010

Emerging markets

Developed markets

Table 4-9: Market capitalisation and Turnover of BRIC Economies

Country	Traded Value (in US $ millions)		YoY Percentage Change	Market capitalisation (in US $ millions)		YoY Percentage Change
	December-08	December-09		December-08	December-09	
Brazil	727,793	649,187	-10.80	589,384	1,167,335	98.06
Russia	562,230	682,540	21.40	1,321,833	861,424	-34.83
India	1,049,748	1,088,889	3.73	645,478	1,179,235	82.69
China	5,470,529	8,956,188	63.72	2,793,613	5,007,646	79.25
BRIC Economies	**7,810,300**	**11,376,804**	**45.66**	**5,350,308**	**8,215,640**	**53.55**
Emerging Market Economies	**12,720,872**	**15,959,679**	**25.46**	**9,277,306**	**13,806,558**	**48.82**
World Total	**80,516,822**	**80,418,059**	**-0.12**	**35,811,160**	**48,713,724**	**36.03**
Percentage share of BRIC Economies to						
1) Total turnover/market capitalisation of Emerging Economies	61.40	71.28		57.67	59.51	
2) Total turnover/market capitalisation of World	9.70	14.15		14.94	16.87	

Source: S&P Global Stock Markets Factbook 2010

The BRIC (Brazil, Russia, India, China) economies posted an year-on-year jump of 46% in the trading value from US $ 7,810 billion in 2008 to US $ 11,377 billion in 2009 (Table 4-9). China witnessed the highest rise in turnover over this period, followed by United States and Russia. India recorded a 4% year-on-year growth in turnover. As regards market capitalization, there was a jump of 54% as at end December 2009 compared to end December 2008, as against a fall of 51% at end December 2008 compared with end December, 2007. The largest upsurge in market capitalization was in Brazil, followed by India and then Taiwan. Chinese markets witnessed an increase in market capitalization of over 79%. The share of BRIC Economies in total traded value of emerging economies was substantially up in 2009 to 71.28% compared to 61.40% in 2008. Similarly, the share of BRIC economies in total world market capitalization increased from 57.67% in 2008 to 59.51% in 2009.

Market Movements

The movement of few of the selected indices placed in table 4-10 brings out the trends witnessed in the Indian and foreign markets during 2008-09 and 2009-10. A global comparison of these selected indices, during these years, shows a varied kind of performance in 2008-09. However, during 2009-10, all these indices witnessed extra-ordinary returns in the range of 30 to 80%.

The period Apri'10 to Sep'09 saw some consolidation in index performance. S&P CNX Nifty saw a maximum return of 14.9%, whereas Nikkei index witnessed a small correction of 15.5%.

Table 4-10: Movement of Select Indices on Indian & Foreign Markets

Region	Index - Country	31-Mar-08	31-Mar-09	31-Mar-10	30-Sep-10	Change during 2008-09 (%)	Change during 2009-10 (%)	Change during Apr'10 - Sep'10 (%)
Americas	Dow Jones	12262.89	7608.92	10856.63	10788.05	-37.95	42.68	-0.63
	Nasdaq	2279.10	1528.59	2397.96	2368.62	-32.93	56.87	-1.22
Europe	FTSE 100- UK	5702.10	3926.10	5679.60	5548.60	-31.15	44.66	-2.31
	CAC- France	4707.07	2807.34	3,974.01	3,715.18	-40.36	41.56	-6.51
Asia Pacific	Nifty 50 (S&P CNX Nifty)- India	4734.50	3020.95	5249.10	6029.95	-36.19	73.76	14.88
	BSE Sensex- India	15644.44	9708.50	17527.77	20069.12	-37.94	80.54	14.50
	Hang Seng- Hong Kong (China)	22849.20	13576.02	21239.35	22358.17	-40.58	56.45	5.27
	Nikkei- Japan	12525.54	8109.53	11089.94	9369.35	-35.26	36.75	-15.51
	TAI- Taiwan	8572.59	5210.84	7920.06	8,237.78	-39.22	51.99	4.01

Source: NSE, BSE & Bloomberg.

Comparing the movement of the Nifty, Sensex and Nasdaq over 2009-10 (all indices rebased for 1 April 2009), as depicted in chart 4-3, it is seen that Nifty 50 performed better than the rest all indices during most part of the year. The returns on the NASDAQ were 56% during 2009-10, while that on FTSE 100 and Hang Seng were 45% and 56% respectively, over the same period (**Table 4-10**).

Chart 4-3: Movement of Nifty, Sensex and NASDAQ, March 2009-September 2010

Source : NSE, Bloomberg

Volatility

The volatility of S&P CNX Nifty (Nifty 50) and Sensex since April 2009 is presented in Table 4-11. The stock markets witnessed maximum volatility during May 2009, when the volatility in Nifty was 4.15% and that in Sensex was 4.2%. May 2009 was a comparatively more volatile month due to a political uncertainty, as India held general elections to the 15th Lok Sabha between 16 April 2009 and 13 May 2009. Volatility was lowest in the month of July 2010. Volatility of S&P CNX Nifty represented by index India VIX and CBOE VIX is also plotted in (Chart 4-4). It can be observed that the S&P CNX Nifty was extremely volatile in comparison to the CBOE for the months of April 2009 to March, 2010.

Chart 4-4: Stock Market Volatility, April 2009-September 2010

Source : NSE, Bloomberg

Table 4-11: Stock Market Index, Volatility and P/E Ratio: April 2009 to Sep 2010

Month/Year	Nifty 50			Sensex		
	Index	Volatility (%)**	P/E Ratio*	Index	Volatility (%)**	P/E Ratio*
Apr-09	3473.95	2.18	16.53	11403.25	2.12	15.94
May-09	4448.95	4.15	20.82	14625.25	4.20	19.87
Jun-09	4291.10	1.92	19.97	14493.84	1.75	19.02
Jul-09	4636.00	2.22	20.68	15670	2.21	20.35
Aug-09	4662.00	1.78	20.94	15667	1.78	20.45
Sep-09	5084.00	0.92	22.9	17127	0.9	22.19
Oct-09	4712.00	1.08	20.45	15896	1.08	20.21
Nov-09	5033.00	1.58	22.37	16926	1.57	21.53
Dec-09	5201.00	1.05	23.17	17465	1.01	22.36
Jan-10	4882.00	1.03	21	16358	0.98	20.32
Feb-10	4922.00	1.18	20.92	16429	1.15	20.15
Mar-10	**5249.00**	**0.70**	**22.33**	**17528**	**0.68**	**21.32**
Apr-10	5278.00	0.80	22.29	17558.71	0.8	21.28
May-10	5086.30	1.60	21.3	16944.63	1.5	19.96
Jun-10	5312.50	1.20	22.25	17700.9	1.2	20.57
Jul-10	5367.60	0.60	22.31	17868.29	0.6	21.2
Aug-10	5402.40	0.70	22.73	17971.12	0.7	21.61
Sep-10	**6029.95**	**0.8**	**25.46**	**20069.12**	**0.8**	**22.99**

Source: NSE, BSE, SEBI
** As on the last trading day of the month.*
*** Volatility is calculated as standard deviation of the Natural Log of returns of indices for the respective period*

The volatility across different sectoral indices for the period April 2009 to September 2010 varied widely (Table 4-13). The CNX IT index was the most volatile index with the highest volatility among the sectoral indices during most of the months. The month of May 2009 saw the highest volatility of 4.37% in this index.

Returns in Indian Market

The performance of Nifty 50 and various other indices as at the end of March 2010 and September 2010 of the last one month to 12 months is presented in table 4-12. Over a one year horizon, as at end March 2010, all indices have shown extraordinary returns in the range of 70% to 150%, with the largest gain in the CNX Nifty Junior index. Six month returns are also positive for all indices as at end March 2010. As at end September 2010, one year returns are positive for all indices. CNX Midcap index gave a return of 36% in September 2010 compared to September 2009.

Table 4-12: Performance of Select Indices - NSE

As at end March 2010- In percent				
	1 month	3 month	6 month	1 year
S&P CNX Nifty	6.64	0.92	3.25	73.76
S&P CNX 500	4.5	-0.37	4.72	87.95
S&P CNX Defty	9.48	4.68	10.51	96.61
CNX Nifty junior	6.67	3.77	15.1	148.45
CNX Midcap	7.5	3.66	14.77	126.12
As at end Sep 2010 - In percent				
	1 month	3 month	6 month	1 year
S&P CNX Nifty	11.62	13.5	14.88	18.61
S&P CNX 500	8.55	11.41	14.19	19.58
S&P CNX Defty	16.86	17.62	14.9	26.97
CNX Nifty Junior	6.68	11.33	16.81	34.45
CNX Midcap	5.58	12.71	18.94	36.51

Source : NSE

The comparative performance of five major sectoral indices, *viz*. S&P CNX Petrochemicals Index, S&P CNX Finance Index, CNX FMCG Index, S&P CNX Pharma Index, and CNX IT Index, with that of Nifty 50 Index for the period April 2009-December 2010 is presented in (Chart 4-5). During the early part of financial 2009-10 the S&P CNX Finance Index was giving maximum returns. However, after August 2009, CNX IT and CNX Bank Nifty indices were better performers in terms of returns. Except for CNX Infrastructure and CNX FMCG index, all other sectoral indices gave better returns than Nifty.

Chart 4-5: Movement of Nifty 50 and Sectoral Indices, April 2009-September 2010

Source : NSE

The monthly closing prices of these sectoral indices are presented in (Table 4-13).

Table 4-13: Performance of Sectoral Indices

Month/ Year	Monthly Closing Prices						Average Daily Volatility (%)					
	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petrochemicals	S&P CNX Pharma-ceuticals	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petro-chemicals	S&P CNX Pharma-ceuticals
Apr-09	3473.95	5299.81	2770.85	2270.87	3443.65	3743.35	2.18	1.57	2.24	2.5	1.76	1.53
May-09	4448.95	5410.16	3206.2	3674.26	3865.73	4220.82	4.15	2.68	4.37	3.93	2.10	2.98
Jun-09	4291.1	5838.79	3497.65	3541.65	3967.54	4305.48	1.92	1.72	1.93	2.67	1.43	1.58
Jul-09	4636.45	6936.45	4330.05	3605.76	4627.7361	4678.38	2.18	1.52	2.44	2.47	2.34	1.21
Aug-09	4662.1	6474.87	4618.35	3636.25	5059.1	4862.33	1.70	1.94	1.78	1.72	1.79	1.05
Sep-09	5083.95	6633.73	5122.1	3806.71	5581.62	5519.48	1.03	1.24	1.36	1.50	1.99	0.97
Oct-09	4711.7	7163.97	5048.8	3478.26	5457.7456	5486.79	1.32	1.03	1.49	1.36	0.83	0.79
Nov-09	5032.7	7399.71	5364.2	3625.42	5585.4336	5954.59	1.19	1.13	1.21	1.70	0.98	0.75
Dec-09	5201.05	7207.39	5818.4	3860.71	6297.9684	6296.95	1.00	0.75	0.79	0.95	1.15	0.90
Jan-10	4882.05	7012.42	5594.15	3647.59	6257.642	6039.33	0.97	0.84	1.77	1.41	1.24	1.03
Feb-10	4922.3	6885.71	5766.7	3576.15	6528.8953	6238.08	1.14	0.82	1.13	1.35	1.96	0.79
Mar-10	5249.1	7273.3026	5855.95	3687.3607	6918.3268	6804.0682	0.58	0.62	0.93	0.64	0.94	0.62
Apr-10	5278	7467.132	5985.8	3918.7657	7477.2758	6803.4037	0.79	0.62	1.00	0.95	1.25	0.57
May-10	5086.3	7665.181	5761.95	3878.1623	7601.0799	6951.0714	1.49	1.15	1.49	1.49	1.12	1.00
Jun-10	5312.5	8404.3848	5928.3	4075.3981	8686.9076	7369.6981	1.13	0.97	1.19	0.99	1.29	0.54
Jul-10	5367.6	8370.1722	6086.85	4295.3814	9117.8065	7158.5461	0.61	0.53	1.00	0.42	0.90	0.34
Aug-10	5402.4	8746.074	5974.9	4375.1673	9320.9491	7121.7763	0.62	0.81	1.10	0.97	1.33	0.60
Sep-10	6029.95	9571.1896	6613.4	4785.1588	9998.7476	7684.3435	0.75	0.98	1.10	0.78	1.52	0.60

Source : NSE

Exchange Traded Funds

The first ETF in India, the "Nifty BeEs (Nifty Benchmark Exchange Traded Scheme) based on Nifty 50 was launched in December 2001 by Benchmark Mutual Fund. It is bought and sold like any other stock on NSE and has all characteristics of an index fund. Details about ETFs are available in Chapter 3.

Liquidity

Many listed securities on stock exchanges are not traded actively. The percentage of companies traded on BSE was quite low in comparison to that on NSE during the period April 2009 to September 2010. In September 2010, only 40.80% of companies traded on BSE while 98.80% of companies traded on NSE. (Table 4-14)

Table 4-14: Trading Frequency on NSE & BSE

Month/Year	NSE			BSE		
	Companies Available for Trading*	Companies Traded	% of Traded to Available for Trading	Listed Securities *	Traded Securities	% of Traded to Listed Securities
Mar-06	929	920	99.03	7,311	2,548	34.85
Apr-09	1,329	1,266	95.26	7,771	2,557	32.90
May-09	1,280	1,268	99.06	7,729	2,870	37.13
Jun-09	1,282	1,268	98.91	8,098	2,703	33.38
Jul-09	1,287	1,269	98.60	7,745	2,828	36.51
Aug-09	1,288	1,272	98.76	7,758	2,911	37.52
Sep-09	1,287	1,275	99.07	7,792	2,917	37.44
Oct-09	1,291	1,274	98.68	7,768	2,844	36.61
Nov-09	1,292	1,286	99.54	7,887	2,896	36.72
Dec-09	1,303	1,297	99.54	7,831	2,999	38.30
Jan-10	1,338	1,320	98.65	7,882	2,923	37.08
Feb-10	1,342	1,328	98.96	7,974	2,907	36.46
Mar-10	**1,359**	**1,343**	**98.82**	**8,072**	**2,963**	**36.71**
Apr-10	1,367	1,346	98.46	8,155	3,039	37.27
May-10	1,374	1,349	98.18	8,155	2,937	36.01
Jun-10	1,388	1,364	98.27	8,214	3,024	36.82
Jul-10	1,392	1,373	98.64	8,239	3,080	37.38
Aug-10	1,408	1,389	98.65	7,639	3,072	40.21
Sep-10	**1,412**	**1,395**	**98.80**	**7,633**	**3,114**	**40.80**

Source: SEBI and NSE.
** At the end of the month. Includes listed/permitted to trade companies but excludes suspended companies.*

The companies traded on BSE for more than 100 days during 2009-10 was 88.58% and that on NSE, was 92.86% (Table 4-15). During the year 2009-10, 4.12% of BSE listed companies witnessed trading for less than 11 days and only 0.93% of NSE companies traded for less than 11 days.

Table 4-15: Trading Frequency of Listed Stocks

Trading Frequency (Range of Days)	2007-08				2008-09				2009-10			
	BSE		NSE		BSE		NSE		BSE		NSE	
	No. of Shares Traded	Per-centage of Total	No. of Shares Traded	Per-centage of Total	No. of Shares Traded	Per-centage of Total	No. of Shares Traded	Per-centage of Total	No. of Shares Traded	Per-centage of Total	No. of Shares Traded	Per-centage of Total
Above 100	2,868	90.59	1,177	92.97	2,831	87.22	1,273	97.85	2,986	88.58	1,301	92.86
91-100	17	0.54	5	0.39	29	0.89	5	0.38	22	0.65	15	1.07
81-90	18	0.57	17	1.34	32	0.99	4	0.31	26	0.77	3	0.21
71-80	18	0.57	7	0.55	21	0.65	0	0.00	24	0.71	9	0.64
61-70	18	0.57	11	0.87	24	0.74	1	0.08	27	0.80	2	0.14
51-60	18	0.57	7	0.55	25	0.77	2	0.15	21	0.62	23	1.64
41-50	15	0.47	7	0.55	33	1.02	4	0.31	30	0.89	6	0.43
31-40	15	0.47	6	0.47	34	1.05	4	0.31	29	0.86	6	0.43
21-30	33	1.04	9	0.71	32	0.99	2	0.15	28	0.83	9	0.64
11-20	43	1.36	13	1.03	38	1.17	3	0.23	39	1.16	14	1.00
1-10	103	3.25	7	0.55	147	4.53	3	0.23	139	4.12	13	0.93
Total	**3,166**	**100.00**	**1,266**	**100.00**	**3,246**	**100.00**	**1,301**	**100.00**	**3,371**	**100.00**	**1,401**	**100.00**

Source: BSE, NSE

Takeovers

In 2009-10, there were 48 takeovers under open category involving ₹ 32,930 million (US $ 730 million) as against 99 takeovers involving ₹ 47,110 million (US $ 925 million) during the preceding year (Table 4-16). Under the exempted category there were 206 takeovers involving ₹ 138,640 million (US $ 3,071 million) as against 227 takeovers involving ₹ 105,020 million (US $ 2,061 million) in the previous year.

Table 4-16: Substantial Acquisition of Shares and Takeovers

Year	Open Offers									Automatic Exemption		
	Objectives						Total			Number	Value of Shares Acquired	
	Change in Control of Management		Consolidation of Holdings		Substantial Acquisition							
	Number	Value (₹ mn)	Number	Value (₹ mn)	Number	Value (₹ Mn)	Number	Value (₹ mn)	Value (US $ Mn)		(₹ mn)	(US $ mn)
1994-95	0	0	1	1,140	1	42	2	1,182		--	--	
1995-96	4	301	4	255	0	0	8	556		--	--	
1996-97	11	118	7	783	1	23	19	924		--	--	
1997-98	18	1,429	10	3,398	13	956	41	5,784		93	35,022	
1998-99	29	997	24	4,163	12	3,271	65	8,430	199	201	18,881	445
1999-00	42	2,588	9	711	23	1,300	74	4,599	105	252	46,774	1,072
2000-01	70	11,404	5	1,890	2	425	77	13,719	294	248	48,732	1,045
2001-02	54	17,562	26	18,152	1	390	81	36,104	740	276	25,390	520
2002-03	46	38,144	40	25,733	2	14	88	63,891	1,345	238	24,284	511
2003-04	38	3,952	16	1,966	11	10,030	65	15,948	368	171	14,357	331
2004-05	35	35,030	12	1,650	14	9,640	61	46,320	1,059	212	69,580	1,590
2005-06	78	32,520	9	1,190	15	7,090	102	40,800	915	245	171,320	3,840
2006-07	66	67,710	15	44,980	6	830	87	113,520	2,604	223	186,080	4,269
2007-08	78	116,570	28	132,540	8	37,960	114	287,070	7,182	232	64,580	1,616
2008-09	80	37,130	13	5,980	6	4,000	99	47,110	925	227	105,020	2,061
2009-10	**39**	**20,530**	**7**	**11,850**	**2**	**550**	**48**	**32,930**	**730**	**206**	**138,640**	**3,071**
Apr 2010 - Sep 2010	**5**	**2,880**	**5**	**8,590**	**8**	**680**	**18**	**12,160**	**271**	**216**	**102,660**	**2,285**
Total	**693**	**388,866**	**231**	**264,971**	**125**	**77,201**	**1,049**	**731,048**	**16,735**	**3,040**	**1,051,320**	**22,658**

Source: SEBI.

Settlement Statistics

The details of settlement of trades on CM segment of NSE are provided in Annexure 4-3. There has been a substantial reduction in short and bad deliveries. Short deliveries averaged around 0.18% of total delivery in 2009-10, a marginal decline compared to that of 2008-09. The ratio of bad deliveries to net deliveries progressively declined to almost negligible in 2009-10.

During 2009-10, taking all stock exchanges together, 25.07% of securities accounting for 22.26% turnover were settled by delivery and the balance were squared up/netted out (Table 4-17). In the preceding year, 23.15% of shares accounting for 21.83% of turnover were settled by delivery. This indicates preference for non-delivery-based trades.

Table 4-17: Delivery Pattern in Stock Exchanges

Sr. no	Exchange	2008-09		2009-10	
		Quantity	Value	Quantity	Value
1	NSE	21.38	22.18	21.49	22.15
2	BSE	26.55	20.94	31.99	22.58
3	Calcutta	93.19	94.66	73.32	48.88
4	Delhi	0.00	0.00	0.00	0.00
5	Ahmedabad	0.00	0.00	0.00	0.00
6	Uttar Pradesh	1.26	0.19	0.56	0.16
7	Bangalore	0.00	0.00	0.00	0.00
8	Ludhiana	0.00	0.00	0.00	0.00
9	Pune	0.00	0.00	0.00	0.00
10	OTCEI	0.00	0.00	0.00	0.00
11	ISE	0.00	0.00	0.00	0.00
12	Madras	0.00	0.00	0.00	0.00
13	Vadodara	0.00	0.00	0.00	0.00
14	Bhubaneshwar	0.00	0.00	0.00	0.00
15	Coimbatore	0.00	0.00	0.00	0.00
16	Madhya Pradesh	0.00	0.00	0.00	0.00
17	Jaipur	0.00	0.00	0.00	0.00
18	Gauhati	0.00	0.00	0.00	0.00
19	Cochin	0.00	0.00	0.00	0.00
	Total	**23.15**	**21.83**	**25.07**	**22.26**

Source: SEBI.
** Delivery ratio represents percentage of delivery to turnover of a Stock Exchange*
Quantity = qnty shares delivered as a % of no. of shares traded
Value = value of shares delivered as a % of turnover

F. Risk Management:

A sound risk management system is integral to an efficient settlement system. The NSCCL ensures that trading members' obligations are commensurate with their net worth. It has put in place a comprehensive risk management system, which is constantly monitored and upgraded to pre-empt market failures. It monitors the track record and performance of members and their net worth; undertakes on-line monitoring of members' positions and exposure in the market, collects margins from members and automatically disables members if the limits are breached. The risk management methods adopted by NSE have brought the Indian stock market in line with the international markets.

Risk Containment Measures

The risk containment measures have been repeatedly reviewed and revised to be up to date with the market realities.

Capital Adequacy

The capital adequacy requirements stipulated by the NSE are substantially in excess of the minimum statutory requirements as also in comparison to those stipulated by other stock exchanges. Corporates seeking membership in the CM and F&O segment are required to have a net worth of ₹ 100 lakh, and keep an interest free security deposit of ₹ 125 lakh and collateral security deposit of ₹ 25 lakh with the Exchange/NSCCL. The deposits kept with the Exchange as part of the membership requirement may be used towards the margin requirement of the member. Additional capital may be provided by the member for taking additional exposure. The capital adequacy norms for Corporates, Individuals/ partnership firms are presented in detail in Table 4-1.

On-line Monitoring

NSCCL has put in place an on-line monitoring and surveillance system, whereby exposure of the members is monitored on a real time basis. A system of alerts has been built in so that both the member and the NSCCL are alerted as per pre-set levels (reaching 70%, 85%, 90%, 95% and 100%) as and when the members approach these limits. The system enables NSCCL to further check the micro-details of members' positions, if required and take pro-active action.

The on-line surveillance mechanism also generates alerts/reports on any price/volume movement of securities not in line with past trends/patterns. Open positions of securities are also analyzed. For this purpose the exchange maintains various databases to generate alerts. These alerts are scrutinized and if necessary taken up for follow up action. Besides this, rumors in the print media are tracked and where they are found to be price sensitive, companies are approached to verify the same. This is then informed to the members and the public.

Off-line Surveillance Activity

Off-line surveillance activity consists of inspections and investigations. As per regulatory requirement, trading members are to be inspected in order to verify the level of compliance with various rules, byelaws and regulations of the exchange. The inspection verifies if investors' interests are being compromised in the conduct of business by the members.

Margin Requirements

NSCCL imposes stringent margin requirements as a part of its risk containment measures. The categorization of stocks for imposition of margins has the structure as given below;

- The Stocks which have traded at least 80% of the days for the previous six months shall constitute the Group I and Group II.
- Out of the scrips identified for Group I & II category, the scrips having mean impact cost of less than or equal to 1% are categorized under Group I and the scrips where the impact cost is more than 1, are categorized under Group II.
- The remaining stocks are classified into Group III.
- The impact cost is 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 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 are computed using the entire trading history of the security.

Categorisation of newly listed securities

For the first month and till the time of monthly review a newly listed security is 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 is computed, to determine the liquidity categorization of the security.

In case any corporate action results in a change in ISIN, then the securities bearing the new ISIN are treated as newly listed security for group categorization.

Daily margins comprises of VaR margin, Extreme Loss margin and Mark to Market margin.

1. Value at Risk Margin

All securities are classified into three groups for the purpose of VaR margin

- For the securities listed in Group I, scrip wise daily volatility calculated using the exponentially weighted moving average methodology is applied to daily returns. The scrip wise daily VaR is 3.5 times the volatility so calculated subject to a minimum of 7.5%.
- For the securities listed in Group II, the VaR margin is higher of scrip VaR (3.5 sigma) or three times the index VaR, and it is scaled up by root 3.
- For the securities listed in Group III the VaR margin is equal to five times the index VaR and scaled up by root 3.

The index VaR, for the purpose, is the higher of the daily Index VaR based on S&P CNX NIFTY or BSE SENSEX, subject to a minimum of 5%. NSCCL may stipulate security specific margins from time to time.

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

The VaR margin is 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 is released on completion of pay-in of the settlement or on individual completion of full obligations of funds and securities by the respective member/custodians after crystallization of the final obligations on T+1 day.

2. Extreme Loss Margin

The Extreme Loss Margin for any security is higher of:

a. 5%, or

b. 1.5 times the standard deviation of daily logarithmic returns of the security price in the last six months. This computation is done at the end of each month by taking the price data on a rolling basis for the past six months and the resulting value is applicable for the next month.

The Extreme Loss Margin is collected/ adjusted against the total liquid assets of the member on a real time basis. The Extreme Loss Margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including its proprietary position. There is no netting off of positions across different settlements. The Extreme Loss Margin collected is released on completion of pay-in of the settlement or on individual completion of full obligations of funds and securities by the respective member/ custodians after crystallization of the final obligations on T+1 day.

3. Mark to Market Margin

Mark to market loss is 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 NSE is 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 is considered as notional loss for the purpose of calculating the mark to market margin payable.

The mark to market margin (MTM) is collected from the member before the start of the trading of the next day. The MTM margin is collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange.

The MTM margin is collected on the gross open position of the member. The gross open position for this purpose means the gross of all net positions across all the clients of a member including its proprietary position. For this purpose, the position of a client is netted across its various securities and the positions of all the clients of a member are grossed.

Close Out Facility

An online facility to close–out open positions of members in the capital market segment whose trading facility is withdrawn for any reason, has been provided with effect from June 13, 2007,

On disablement, the trading members will be allowed to place close-out orders through this facility. Only orders which result in reduction of existing open positions at the client level would be accepted through the close-out facility in the normal market. Members would not be allowed to create any fresh position when in the close-out mode, to place close out orders with custodial participant code and to close out open positions of securities in trade for trade segment.

Index-based Market-wide Circuit Breakers

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. The market-wide circuit breakers are triggered by movement of either the BSE Sensex or the NSE S&P CNX Nifty, 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.

NSE may suo moto cancel the orders in the absence of any immediate confirmation from the members that these orders are genuine or for any other reason as it may deem fit. The Exchange views entries of non-genuine orders with utmost seriousness as this has market–wide repercussion.

Daily Price Bands on Securities

As an additional measure of safety, individual scrip-wise price bands have been fixed as below:

- Daily price bands of 2% (either way)
- Daily price bands of 5% (either way)
- Daily price bands of 10% (either way)

No price bands are applicable on scrips on which derivative products are available or scrips included in indices on which derivative products are available (unless otherwise specified). In order to prevent members from entering orders at non-genuine prices in such securities, the Exchange has fixed operating range of 20%.

- Price bands of 20% (either way) on all remaining scrips (including debentures, preference shares etc).

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 Auction market the price bands of 20% are applicable.

Settlement Guarantee Fund

The Settlement Guarantee Fund provides a cushion for any residual risk and operates like a self-insurance mechanism wherein members themselves contribute to the fund. In the event of a trading member failing to meet his settlement obligation, then the fund is utilized to the extent required for successful completion of the settlement. This has eliminated counter-party risk of trading on the Exchange. The market has full confidence that settlement shall take place in time and shall be completed irrespective of default by isolated trading members. As of September 2010, the Settlement Guarantee Fund was ₹ 5,261 Crore.

Annexure 4-1: Exchange -wise Brokers and Sub-brokers in India

Sr. No.	Exchanges	Participants at the end March					
		Registered Brokers			Registered Sub-Brokers		
		2008	2009	2010	2008	2009	2010
1	Ahmedabad	321	325	329	97	96	95
2	Bangalore	256	257	261	156	158	158
3	BSE	946	984	1,003	20,616	30,059	33,710
4	Bhubaneshwar	214	213	214	17	17	17
5	Calcutta	957	926	908	87	84	81
6	Cochin	435	435	438	42	43	41
7	Coimbatore	135	135	135	21	19	20
8	Delhi	374	375	455	277	261	255
9	Gauhati	103	103	98	4	4	4
10	ICSEIL	935	946	943	3	3	2
11	Jaipur	488	488	484	33	33	32
12	Ludhiana	297	301	300	37	36	36
13	Madhya Pradesh	174	174	192	5	5	5
14	Madras	181	183	193	112	110	109
15	NSE	1,129	1243	1,310	22,144	31,328	40,600
16	OTCEI	719	713	704	19	19	17
17	Pune	188	188	186	158	156	156
18	Uttar Pradesh	354	351	339	8	3	3
19	Vadodara	311	312	312	38	37	37
	Total	**8,517**	**8,652**	**8,804**	**43,874**	**62,471**	**75,378**

Source: SEBI

Annexure 4-2: Business Growth of CM Segment of NSE

Month/ Year	No. of Trading Days	No. of Companies Traded	No. of Trades (mn.)	Traded Quantity (mn.)	Turnover (₹ mn.)	Average Daily Turnover (₹ mn.)	Turnover Ratio (%)	Demat Securities Traded (mn.)	Demat Turnover (₹ mn.)	Demat Turnover as a % of Total Turnover	Market Capitalisation (₹ mn.) *
2001-02	247	1,019	175	27,841	5,131,674	20,776	80.58	27,772	5,128,661	99.94	6,368,610
2002-03	251	899	240	36,407	6,179,886	24,621	115.05	36,405	6,179,845	100.00	5,371,332
2003-04	254	804	379	71,330	10,995,339	43,289	98.09	71,330	10,995,339	100.00	11,209,760
2004-05	253	856	451	79,769	11,400,720	45,062	71.90	79,769	11,400,720	100.00	15,855,853
2005-06	251	928	609	84,449	15,695,579	62,532	55.79	84,449	15,695,579	100.00	28,132,007
2006-07	249	1,114	785	85,546	19,452,865	78,124	57.77	85,546	19,452,865	100.00	33,673,500
2007-08	251	1,244	1,173	149,847	35,510,382	141,476	73.09	149,847	35,510,382	100.00	48,581,217
2008-09	243	1277	1,365	142,635	27,520,230	113,252	95.02	142,635	27,520,230	100.00	28,961,942
Apr-09	17	1,279	127	18,316	2,666,965	156,880	---	18,316	2,666,965	100.00	33,750,246
May-09	20	1,280	148	22,903	3,825,610	191,280	---	22,903	3,825,610	100.00	45,645,722
Jun-09	22	1,282	180	27,485	4,824,136	219,279	---	27,485	4,824,136	100.00	44,325,955
Jul-09	23	1,282	171	21,936	4,261,429	185,280	---	21,936	4,261,429	100.00	48,164,590
Aug-09	21	1,287	148	19,443	3,649,688	173,795	---	19,443	3,649,688	100.00	49,757,998
Sep-09	20	1,287	139	19,651	3,650,631	182,532	---	19,651	3,650,631	100.00	53,538,796
Oct-09	20	1,291	135	16,848	3,629,688	181,484	---	16,848	3,629,688	100.00	50,248,302
Nov-09	20	1,292	132	15,740	3,244,768	162,238	---	15,740	3,244,768	100.00	54,300,880
Dec-09	21	1,303	126	15,038	2,929,004	139,476	---	15,038	2,929,004	100.00	56,996,368
Jan-10	19	1,338	140	18,042	3,384,426	178,128	---	18,042	3,384,426	100.00	57,829,647
Feb-10	20	1,342	113	12,354	2,451,434	122,572	---	12,354	2,451,434	100.00	57,553,054
Mar-10	21	1,359	123	13,797	2,862,455	136,307	---	13,797	2,862,455	100.00	60,091,732
2009-10	**244**	**1,359**	**1,682**	**221,553**	**41,380,234**	**169,591**	**68.86**	**221,553**	**41,380,234**	**100.00**	**60,091,732**
Apr-10	20	1,367	121	14,406	2,765,655	138,283	---	14,406	2,765,655	100.00	61,178,575
May-10	22	1,374	125	13,981	2,846,249	129,375	---	13,981	2,846,249	100.00	59,325,783
Jun-10	22	1,388	125	14,362	2,861,092	130,050	---	14,362	2,861,092	100.00	62,291,356
Jul-10	22	1,392	122	13,942	2,785,508	126,614	---	13,942	2,785,508	100.00	63,401,199
Aug-10	22	1,408	136	15,247	3,119,937	141,815	---	15,247	3,119,937	100.00	63,934,175
Sep-10	21	1,412	137	17,329	3,298,687	157,080	---	17,329	3,298,687	100.00	69,585,335
Apr'09-Sep'10	**129**	**1,412**	**765**	**89,266**	**17,677,127**	**137,032**	**25.40**	**89,266**	**17,677,127**	**100.00**	**69,585,335**

Source : NSE

Annexure 4-3: Settlement Statistics in CM Segment of NSE

Month/ Year	No. of Trades (mn.)	Traded Quantity (mn.)	Quantity of Shares Deliverable (mn.)	% of Shares Deliverable to Total Shares Traded	Turnover (₹ mn.)	Value of Shares Deliverable (₹ mn.)	Turnover (US $. mn.)	Value of Shares Deliverable (US$. mn.)	% of Deliverable to Value of Shares Traded	Securities Pay-in (₹ mn.)	Short Delivery (Auctioned quantity) (mn.)	% of Short Delivery to Delivery	Unrectified Bad Delivery (Auctioned quantity) (mn.)	% of Un rectified Bad Delivery to Delivery	Funds Pay-in (₹ mn.)
2005-06	600	81,844	22,724	27.77	15,168,390	4,093,525	340,022	91,762	26.99	4,079,759	89	0.39	0.00	0.00	1,314,256
2006-07	786	85,051	23,907	28.11	19,400,943	5,444,345	445,078	124,899	28.06	5,430,475	77	0.32	0.00	0.00	1,731,877
2007-08	1,165	148,123	36,797	24.84	35,199,186	9,728,029	880,640	22,033	27.64	9,706,179	100	0.27	0.00	0.00	3,095,432
2008-09	1,364	141,893	27,527	21.59	27,494,501	6,115,350	539,637	120,027	21.97	6,104,977	62.52	0.20	–	–	2,207,040
Apr-09	126	17,934	3,441	19.19	2,613,099	481,486	57,889	10,666	18.43	480,717	6.83	0.2	0.00	0.00	162,686
May-09	144	21,907	4,555	20.79	3,579,318	744,359	79,294	16,490	20.8	743,169	11.27	0.25	0.00	0.00	252,195
Jun-09	182	28,112	5,311	18.89	4,965,891	988,893	110,011	21,907	19.91	987,606	8.11	0.15	0.00	0.00	296,316
Jul-09	169	21,682	3,976	18.34	4,190,774	801,943	92,839	17,766	19.14	800,780	5.78	0.15	0.00	0.00	254,330
Aug-09	148	19,171	3,961	20.66	3,714,741	786,615	82,294	17,426	21.18	785,615	7.12	0.18	0.00	0.00	237,513
Sep-09	134	19,160	4,344	22.67	3,499,404	822,093	77,523	18,212	23.49	821,242	6.19	0.14	0.00	0.00	248,530
Oct-09	140	17,321	4,022	23.22	3,739,533	899,402	82,843	19,925	24.05	898,341	6.75	0.17	0.00	0.00	269,654
Nov-09	133	16,104	3,559	22.1	3,322,481	746,495	73,604	16,537	22.47	745,655	5.08	0.14	0.00	0.00	229,134
Dec-09	127	15,073	3,429	22.75	2,982,151	688,530	66,064	15,253	23.09	687,484	6.50	0.19	0.00	0.00	179,949
Jan-10	136	17,572	4,428	25.2	3,245,836	852,055	71,906	18,876	26.25	851,014	8.09	0.18	0.00	0.00	258,868
Feb-10	115	12,591	2,836	22.52	2,534,672	587,671	56,151	13,019	23.19	586,791	5.16	0.18	0.00	0.00	183,536
Mar-10	125	13,960	3,620	25.93	2,904,237	777,512	64,338	17,224	26.77	776,188	9.30	0.26	0.00	0.00	211,161
2009-10	**1,679**	**220,588**	**47,481**	**21.86**	**41,292,136**	**9,177,054**	**914,757**	**203,302**	**22.40**	**9,164,601**	**86.19**	**0.18**	**0**	**0**	**2,783,871**
Apr-10	120	14,072	3,896	27.69	2,733,438	747,444	60,851	16,639	27.34	747,444	6.92	0.18	0.00	0.00	193,105
May-10	125	14,160	3,733	26.36	2,879,308	761,223	64,099	16,946	26.44	761,223	5.16	0.14	0.00	0.00	235,415
Jun-10	124	14,101	3,461	24.54	2,827,478	708,010	62,945	15,762	25.04	708,010	6.00	0.17	0.00	0.00	222,920
Jul-10	122	14,013	3,871	27.63	2,767,341	767,535	61,606	17,087	27.74	767,535	5.97	0.15	0.00	0.00	201,454
Aug-10	136	15,369	4,439	28.88	3,164,313	875,209	70,443	19,484	27.66	875,209	14.65	0.33	0.00	0.00	216,752
Sep-10	130	15,691	4,499	28.67	3,029,842	874,714	67,450	19,473	28.87	874,714	8.78	0.2	0.00	0.00	273,162
April 10 to September 10	**757**	**87,406**	**23,899**	**27.30**	**17,401,719**	**4,734,134**	**387,394**	**105,390**	**27.18**	**4,734,134**	**47.48**	**0.20**	**0**	**0**	**1,342,807**

Source : NSE, Bloomberg

Annexure 4-4: S&P CNX Nifty Index for September 2010

Sr. No.	Name of Security	Free Float Market Capitalisation (₹ crore)	Weightage (%)	Beta	R^2	Volatility (%)	Monthly Return (%)	Impact Cost (%)
1	ABB	4,128.50	0.26	0.59	0.30	1.19	(3.96)	0.08
2	ACC	8,791.66	0.56	0.68	0.46	1.36	4.74	0.06
3	AMBUJACEM	10,262.04	0.66	0.75	0.44	2.37	6.58	0.08
4	AXISBANK	33,802.45	2.16	1.13	0.66	1.11	(0.95)	0.06
5	BHEL	38,026.62	2.43	0.67	0.57	0.91	(1.28)	0.05
6	BPCL	9,836.37	0.63	0.28	0.13	2.65	18.66	0.07
7	BHARTIARTL	39,941.62	2.55	0.62	0.27	1.63	6.70	0.08
8	CAIRN	14,322.07	0.91	1.07	0.63	2.17	(0.54)	0.07
9	CIPLA	15,387.97	0.98	0.38	0.25	1.23	(7.06)	0.06
10	DLF	10,948.71	0.70	1.66	0.71	1.94	0.18	0.07
11	GAIL	20,754.39	1.33	0.57	0.36	1.38	5.37	0.08
12	HCLTECH	9,006.25	0.58	0.99	0.48	1.73	(2.46)	0.07
13	HDFCBANK	74,994.38	4.79	0.79	0.63	1.12	0.35	0.06
14	HEROHONDA	17,096.41	1.09	0.65	0.41	1.31	(1.28)	0.06
15	HINDALCO	21,626.86	1.38	1.94	0.74	1.91	3.77	0.08
16	HINDUNILVR	27,692.21	1.77	0.37	0.27	1.02	5.19	0.06
17	HDFC	80,762.19	5.16	0.98	0.67	1.50	5.19	0.09
18	ITC	85,365.55	5.45	0.60	0.43	1.43	5.68	0.08
19	ICICIBANK	109,040.86	6.96	1.57	0.81	1.95	8.05	0.06
20	IDEA	5,648.08	0.36	0.71	0.30	2.05	1.35	0.09
21	INFOSYSTCH	130,757.74	8.35	0.77	0.59	1.16	(2.67)	0.05
22	IDFC	20,346.95	1.30	1.22	0.62	1.21	(4.28)	0.07
23	JPASSOCIAT	12,517.34	0.80	1.70	0.72	1.81	(7.66)	0.07
24	JINDALSTEL	26,568.59	1.70	1.23	0.64	1.55	9.93	0.07
25	KOTAKBANK	14,344.85	0.92	1.25	0.68	1.50	7.43	0.07
26	LT	95,899.07	6.13	0.92	0.67	1.06	1.08	0.06
27	M&M	26,713.02	1.71	1.21	0.61	1.11	(5.26)	0.06
28	MARUTI	16,635.67	1.06	0.66	0.38	0.87	4.91	0.06
29	NTPC	25,044.46	1.60	0.62	0.56	0.86	(1.41)	0.05
30	ONGC	45,110.69	2.88	0.57	0.40	1.32	7.81	0.07
31	POWERGRID	6,244.41	0.40	0.50	0.43	1.57	8.37	0.07
32	PNB	15,704.54	1.00	0.77	0.58	1.52	10.26	0.06

Contd.

Contd.

Sr. No.	Name of Security	Free Float Market Capitalisation (₹ crore)	Weightage (%)	Beta	R^2	Volatility (%)	Monthly Return (%)	Impact Cost (%)
33	RANBAXY	7,457.28	0.48	0.88	0.50	1.37	9.11	0.06
34	RELCAPITAL	8,566.17	0.55	1.36	0.68	1.32	(3.21)	0.06
35	RCOM	10,396.14	0.66	1.15	0.46	1.60	(12.67)	0.07
36	RELIANCE	155,482.25	9.93	1.15	0.72	0.96	(8.96)	0.04
37	RELINFRA	14,050.81	0.90	1.27	0.64	1.44	(9.62)	0.07
38	RPOWER	5,555.91	0.35	1.06	0.59	1.03	(7.02)	0.07
39	SIEMENS	10,466.52	0.67	1.10	0.63	0.87	(0.98)	0.06
40	SBIN	71,283.59	4.55	1.13	0.67	1.97	10.53	0.05
41	SAIL	10,935.23	0.70	1.41	0.71	0.89	(8.48)	0.06
42	STER	23,960.80	1.53	1.72	0.74	1.66	(13.64)	0.07
43	SUNPHARMA	13,244.53	0.85	0.40	0.27	1.08	(0.35)	0.06
44	SUZLON	3,787.81	0.24	1.18	0.47	2.04	(18.14)	0.08
45	TCS	42,732.42	2.73	0.80	0.51	1.42	0.47	0.06
46	TATAMOTORS	32,229.55	2.06	1.50	0.62	2.07	19.38	0.06
47	TATAPOWER	19,781.69	1.26	0.72	0.54	0.81	(7.46)	0.05
48	TATASTEEL	31,853.53	2.03	1.73	0.76	1.61	(2.66)	0.06
49	UNITECH	10,434.16	0.67	1.86	0.70	2.33	(4.44)	0.08
50	WIPRO	20,083.31	1.28	0.86	0.54	1.44	(2.92)	0.07
		1,565,624	**100.00**	**1.00**	**--**	**0.77**	**11.62**	**0.06**

* Beta & R^2 are calculated for the period 01-Sep-2009 to 30-Sep-2010
* Beta measures the degree to which any portfolio of stocks is affected as compared to the effect on the market as a whole.
* The coefficient of determination (R2) measures the strength of relationship between two variables the return on a security versus that of the market.
* Volatility is the Std. deviation of the daily returns for the period 01-Sep-2010 to 30-Sep-2010
* Last day of trading was 30-Sep-2010
* Impact Cost for S&P CNX Nifty is for a portfolio of ₹ 50 Lakhs
* Impact Cost for S&P CNX Nifty is the weightage average impact cost