SECURITIES LAWS AND COMPLIANCES
PART A — SECURITIES LAWS
STUDY VIII - STOCK EXCHANGE – TRADING MECHANISM

LEARNING OBJECTIVES

The study will enable the students to understand

- Operation of stock exchanges
- Stock Exchange Trading Mechanism
- BSE Online Trading System (BOLT)
- National Exchange for Automated Trading (NEAT)

INTRODUCTION

There are 23 stock exchanges in India including Over The Counter Exchange of India (OTCEI), National Stock Exchange (NSE) and Inter-Connected Stock Exchange (ICSE). All of them are regulated in terms of Securities Contract (Regulation) Act, 1956 and SEBI Act, 1992 and the rules and regulations made thereunder. Some of the exchanges started of as voluntary non-profit associations such as Bombay Stock Exchange (BSE) and Indore Stock Exchange. The Stock Exchanges at Chennai, Jaipur, Hyderabad and Pune were incorporated as companies limited by guarantee. The other stock exchanges are companies limited by shares and incorporated under the Companies Act, 1956 or earlier acts.

The stock exchanges are managed by Board of Directors or Council of Management consisting of elected brokers and representatives of Government and Public appointed by SEBI. The Boards of stock exchanges are empowered to make and enforce rules, bye-laws and regulations with jurisdiction over all its members.

Membership of stock exchanges is generally given to persons financially sound and with adequate experience/training in stock market. Their enrolment as member is regulated and controlled by SEBI to whom they have to pay an annual charge. A member of the stock exchange is called ‘broker’ who can transact on behalf of his clients as well as on his own behalf. A non-member can deal in securities only through members. A member can act as a Badla Financier, Commission Broker, Dealer in Odd lots, Government Securities, Jobber, Market Maker or Under writer. He can also take the assistance of sub-broker whom he can appoint under the procedure of registration.

I. STOCK EXCHANGE TRADING MECHANISM

The stock exchange is a key institution facilitating the issue and sale of various types of securities. It is a pivot around which every activity of the capital market revolves. In the absence of the stock exchange, the people with savings would hardly invest in corporate securities for which there would be no liquidity (buying and selling facility). Corporate investments from the general public would have been thus lower.

Stock exchanges thus represent the market place for buying and selling of securities and ensuring liquidity to them in the interest of the investors. The

stock exchanges are virtually the nerve centre of the capital market and reflect the health of the country's economy as a whole.
Securities are traded in three different ways in stock exchanges ring, namely—settlement basis, spot basis and cash basis.
Shares of companies which are not in the spot list are known as 'cash' shares or 'B' Category shares. They are traded on cash basis or delivery basis and cannot be traded on settlement basis. The actual delivery of securities and payment has to be made on or before the settlement date fixed in the case of cash basis trading.
As far as spot trading is concerned the actual delivery of securities must be made to the buying broker within 48 hours of the contract. It is expected that the seller would be paid by the buyer immediately on delivery of securities.
All securities whether the specified list or cash list can be traded on spot basis or cash basis.

Types of Securities

Securities traded in the stock exchanges can be classified as under:

1. *Listed cleared Securities:* The securities admitted for dealing on stock exchange after complying with all the listing requirements and played by the Board on the list of cleared securities are called by this name.
2. *Permitted Securities:* The securities listed on some of the recognised stock exchanges, when permitted to be traded by those stock exchanges where they are not listed are called permitted securities. Such permission is given if suitable provisions exist in the regulations of the concerned stock exchanges.

Types of Delivery

Types of delivery in the stock exchanges are spot delivery, hand delivery and special delivery.
The delivery is said to be spot delivery, if the delivery of and payment for securities are to be made on the same day or the next day.
The delivery is said to be hand delivery, if the delivery and payment are to be made on the delivery date fixed by the stock exchange authorities.
A special delivery is one where the delivery is to be made after the delivery period fixed by the stock exchange authorities.

Margins

An advance payment of a portion of the value of a stock transaction. The amount of credit a broker or lender extends to a customer for stock purchase.

Margin Trading

Margin trading was introduced by SEBI to curb speculative dealings in shares leading to volatility in the prices of securities.
"Initial margin" in this context means the minimum amount, calculated as a percentage of the transaction value, to be placed by the client, with the broker, before the actual purchase. The broker may advance the balance amount to meet full settlement obligations.
"Maintenance margin" means the minimum amount, calculated as a percentage of market value of the securities, calculated with respect to last trading day's closing price, to be maintained by client with the broker.
When the balance deposit in the client's margin account falls below the

required maintenance margin, the broker shall promptly make margin calls. However, no further exposure can be granted to the client on the basis of any increase in the market value of the securities.
The broker may liquidate the securities if the client fails to meet the margin calls made by the broker or fails to deposit the cheques on the day following the day on which the margin call has been made or the cheque has been dishonoured.
The broker may also liquidate the securities in case the client's deposit in the margin account (after adjustment for mark to market losses) falls to 30% or less of the latest market value of the securities, in the interregnum between making of the margin call and receipt of payment from the client.
The broker must disclose to the stock exchange details on gross exposure including the name of the client, unique identification number, name of the scrip and if the broker has borrowed funds for the purpose of providing margin trading facilities, name of the lender and amount borrowed, on or before 12 Noon on the following day.
Stock exchanges disclose scripwise gross outstanding in margin accounts with all brokers to the market. Such disclosures regarding margin trading done on any day shall be made available after the trading hours on the following day through the website.
Thus, margin trading acts as a check on the tendency of clients to manipulate markets by placing orders on brokers without having adequate money or securities to backup the transaction.
Margin trading will also acts as a curb on short selling and short buying.
The reduction in above tendencies on the part of clients reduces volatility of prices on the stock exchange and provides stability to the common investors.
Margin trading mechanism also ensures transparency in dealings in securities and public exposure of the information regarding the backing behind all major securities transactions.
In the Indian capital markets particularly excessive short selling and market positioning have been rampant. Margin trading has acted as a stabilising force.

Book Closure and Record Date

Book closure is the periodic closure of the Register of Members and Transfer Books of the company, to take a record of the shareholders to determine their entitlement to dividends or to bonus or right shares or any other rights pertaining to shares. Record date is the date on which the records of a company are closed for the purpose of determining the stock holders to whom dividends, proxies rights etc. are to be sent.
In accordance with Section 154 of the Companies Act, 1956 a company may close the register of members for a maximum of 45 days in a year and for not more than 30 days at any one time. Book closure become necessary for the purpose of paying dividend, making rights issue or bonus issue. The listed company is required to give notice of book closure in a news paper at least 7 days before the commencement of the book closure. The members whose names appear in the register of members on the last date of book closure are entitled to receive the benefits of dividend, right shares or bonus shares as

the case may be.

Trading of Partly Paid Shares and Debentures

Companies fix the last date for payment of allotment or call money in case of partly paid shares or debentures and intimate this to all the stock exchanges wherein such shares or debentures are listed. Based on the date fixed by the company, the stock exchanges determine the settlement date upto which transactions in the scrip will be deemed to be good for delivery. After the said date, transactions in the securities take place only if they are paid up to the extent money has been called up.

Trend Line

When the price of shares moves in a particular direction which persists for a period of time, a price line is regarded as established. When the movement is upward, the trend is called 'BULLISH' and when the movement is downward it is called 'BEARISH'. Bear market is a weak or falling market characterised by the dominance of sellers. Whereas Bull market is a rising market with abundance of buyers and relatively few sellers.

Secondary movements that reverse the uptrend temporarily are known as reactions. The movements that reverse the down trend temporarily are known as rallies. When an uptrend breaks in the downward direction, it is called trend reversal.

Trading Volume

Trading volumes confirm whether the rise or fall in prices is in line with the trend. The high trading volume is built on rising prices, similarly the high trading volume is also linked with fall in prices. They respectively reflect a BULLISH trend and a BEARISH trend.

Turnover and Outstanding Position

The net turnover and outstanding positions in various scrips show the extent of BULLISH interest in them and are used along with trading volume to judge the intensity of the phase whether BULLISH or BEARISH. In a BULL phase there will be a sharp rise in the daily turnover of key scrips and in a BEAR phase the reverse will be the case.

Market Making

Though there are 8,500 companies listed on the stock exchanges in India only a few of them are being actively traded in the market. Thus the market sentiment was not representative of a wide range of industries or companies, because mostly concentrated on a few scrips. This leads one to conclude that mere listing of securities does not provide liquidity to scrips. A process known as market making was clearly needed to build up liquidity. The market maker by offering a two way quote not only increases the supply of scrips but also triggers of a demand in the scrips. SEBI has taken the view that market making will go a long way in reducing the bane of concentration and thus eliminating the influence of the unbalanced Sensitive Index.

In the case of OTCEI every company seeking listing should appoint two market makers. The sponsor has to be compulsorily a market maker for 3 years and arranged for atleast one more market maker for one year. Market makers are Merchant Bankers willing to make a secondary market in securities through selection and specialisation. They act as dealer cum stockist and display bid and offer price without charging any commission or brokerage.

Their profit margin is spread between bid and offer prices. A voluntary market maker can be appointed for a period of 6 months. The minimum market depth for market makers is 3 market lots of 100 shares each. After the initial period the job of market making can be assigned to another member or dealer. In April 1993, SEBI issued guidelines for market making to be introduced in the 4 Metropolitan Exchanges of Mumbai, Kolkata, Chennai and Delhi.

Short selling and securities lending and borrowing

SEBI vide Circular no MRD/DoP/SE/Dep/Cir- 14 /2007 dated December 20, 2007 permitted all classes of investors to short sell subject to the broad framework specified there in which are enumerated as follows.

Broad framework for short selling

— "Short selling" shall be defined as selling a stock which the seller does not own at the time of trade.

— All classes of investors, viz., retail and institutional investors, shall be permitted to short sell.

— Naked short selling shall not be permitted in the Indian securities market and accordingly, all investors would be required to mandatorily honour their obligation of delivering the securities at the time of settlement.

— No institutional investor shall be allowed to do day trading i.e., square-of their transactions intra-day. In other words, all transactions would be grossed for institutional investors at the custodians' level and the institutions would be required to fulfill their obligations on a gross basis.

— The custodians, however, would continue to settle their deliveries on a net basis with the stock exchanges.

— The stock exchanges shall frame necessary uniform deterrent provisions and take appropriate action against the brokers for failure to deliver securities at the time of settlement which shall act as a sufficient deterrent against failure to deliver.

— A scheme for Securities Lending and Borrowing (SLB) shall be put in place to provide the necessary impetus to short sell. The introduction of fullfledged securities lending and borrowing scheme shall be simultaneous with the introduction of short selling by institutional investors.

— The securities traded in F&O segment shall be eligible for short selling.

— SEBI may review the list of stocks that are eligible for short selling transactions from time to time.

— The institutional investors shall disclose upfront at the time of placement of order whether the transaction is a short sale. However, retail investors would be permitted to make a similar disclosure by the end of the trading hours on the transaction day.

— The brokers shall be mandated to collect the details on scrip-wise short sell positions, collate the data and upload it to the stock exchanges before the commencement of trading on the following trading day. The stock exchanges shall then consolidate such information and disseminate the same on their websites for the information of the public on a weekly basis.

— The frequency of such disclosure may be reviewed from time to time with the approval of SEBI.

Broad framework for securities lending and borrowing

— In order to provide a mechanism for borrowing of securities to enable settlement of securities sold short, the stock exchanges shall put in place, a full fledged securities lending and borrowing(SLB) scheme, within the overall framework of "Securities Lending Scheme, 1997" (the scheme), that is open for all market participants in the Indian securities market.

— To begin with, the SLB shall be operated through Clearing Corporation/ Clearing House of stock exchanges having nation-wide terminals who will be registered as Approved Intermediaries (AIs) under the SLS, 1997.

— The SLB shall take place on an automated, screen based, order-matching platform which will be provided by the AIs. This platform shall be independent of the other trading platforms.

— To begin with, the securities traded in F&O segment shall be eligible for lending & borrowing under the scheme.

— All categories of investors including retail, institutional etc. will be permitted to borrow and lend securities. The borrowers and lenders shall access the platform for lending/borrowing set up by the AIs through the clearing members (CMs) (including banks and custodians) who are authorized by the AIs in this regard.

— The AIs, CMs and the clients shall enter into an agreement (which may have one or more parts) specifying the rights, responsibilities and obligations of the parties to the agreement. The agreement shall include the basic conditions for lending and borrowing of securities as prescribed under the scheme. In addition to that, AIs may also include suitable conditions in the agreement to have proper execution, risk management and settlement of lending and borrowing transactions with clearing member and client. Given the nature of the client base, while the major responsibility of ensuring compliance with "Know Your Client" (KYC) norms in respect of the clients rests with CMs, the exact role of AIs/CMs vis-à-vis the clients in this regard needs to be elaborated in the aforesaid agreement between the AI/CMs/clients. In this regard, there would be one master agreement with two individual parts to the same. The first part of the agreement would be between the AIs and the CMs and the second part of the agreement would be between the CMs and the clients. There would be adequate cross referencing between the two parts of the agreement so that all the concerned parties, viz., the AIs/CMs and the clients agree completely and are aware of all the provisions governing the SLB transactions between them. However, there shall be no direct agreement between the lender and the borrower. The CM will attach a certified copy of the first part of the agreement signed with the AI in the second part of the agreement signed with each client. The model agreements in this regard would be devised by the stock exchanges.

— The AIs shall allot a unique ID to each client which shall be mapped to the Permanent Account Number (PAN) of the respective clients. The AIs shall put in place appropriate systemic safeguards to ensure that a client is not able to obtain multiple client IDs.

— The tenure of lending/borrowing shall be fixed as standardised contracts. To start with, contracts with tenure of 7 trading days may be introduced.
— The settlement cycle for SLB transactions shall be on T+1 basis.
— The settlement of lending and borrowing transactions shall be independent of normal market settlement.
— The settlement of the lending and borrowing transactions shall be done on a gross basis at the level of the clients i.e. no netting of transactions at any level will be permitted.
— AIs would frame suitable risk management systems to guarantee delivery of securities to borrower and return of securities to the lender. In the case of lender failing to deliver securities to the AI or borrower failing to return securities to the AI, the AI shall conduct an auction for obtaining securities. In the event of exceptional circumstances resulting in non-availability of securities in auction, such transactions would be financially closed-out at appropriate rates, which may be more than the rates applicable for the normal close-out of transactions, so as to act as a sufficient deterrent against failure to deliver securities.
— Position limits at the level of market, CM and client shall be decided from time to time by AIs in consultation with SEBI. To begin with (a) the market–wide position limits for SLB transactions shall be 10% of the free-float capital of the company in terms of number of shares (b) No clearing member shall have open position of more than 10% of the market-wide position limits or Rs. 50 crore (base value), whichever is lower (c) For a FII/MF, the position limits shall be the same as of a clearing member (d) The client level position limits shall be not more than 1% of the market-wide position limits.
— There shall be no lending/borrowing activity during the periods of corporate action in the security and shall be disclosed by AI to the market.
— Any borrowing/lending and return of securities would not amount to purchase/disposal/transfer of the same for the purpose of compliance with the extant FDI/FII limits and the norms regarding acquisition of shares/ disclosure requirements specified under the various Regulations of SEBI.
— Adequate systems shall be put in place by the stock exchanges/Depositories to distinguish the SLB transactions from the normal market transactions in the demat system.
— AIs shall provide suitable arbitration mechanism for settling the disputes arising out of the SLB transactions executed on the platform provided by them.
— AIs shall disseminate in public domain, the details of SLB transactions executed on the platform provided by them and the outstanding positions on a weekly basis. The frequency of such disclosure may be reviewed from time to time with the approval of SEBI.

Settlement System

Settlement is the process of netting of transactions and actual delivery/receipt of securities and transfer deeds against receipts/payment of agreed amount. It is necessary to make a settlement to know the net effect of a series of transaction during a given period.

Settlement date is the date specified for delivery of securities between securities firms. For administrative convenience, a stock exchange divides the year into a number of settlement periods so as to enable members to settle their trades. All transactions executed during the settlement period are settled at the end of the settlement period.

Settlement risk or principal risk is the risk that the seller of a security or funds delivers its obligation but does not receive payment or that the buyer of a security or funds makes payment but does not receive delivery. In this event, the full principal value of the securities or funds transferred is at risk.

Having discussed few stock exchange terminologies, below we are discussing the evolution, development and trading and settlement systems of the Stock Exchange, Mumbai, National Stock Exchange of India Limited.

II. THE STOCK EXCHANGE, MUMBAI*

The Stock Exchange, Mumbai, popularly known as "BSE" was established in 1875 as "The Native Share and Stock Brokers Association". It is the oldest one in Asia, even older than the Tokyo Stock Exchange, which was established in 1878. It is a voluntary non-profit making Association of Persons (AOP) and is currently engaged in the process of converting itself into demutualised and corporate entity. It has evolved over the years into its present status as the premier Stock Exchange in the country. It is the first Stock Exchange in the Country to have obtained permanent recognition in 1956 from the Govt. of India under the Securities Contracts (Regulation) Act, 1956.

The Exchange, provides market for trading in securities, debt and derivatives upholds the interests of the investors and ensures redressal of their grievances whether against the companies or its own member-brokers. It also strives to educate and enlighten the investors by conducting investor education programmes and making available to them necessary informative inputs.

Turnover on the Exchange

— The average daily turnover of the Exchange during the financial year 2000-2001 (April-March), was Rs.3984.19 crores and the average number of daily trades was 5.69 lakhs.

— The average daily turnover of the Exchange in the subsequent two financial years, i.e., 2001-02 & 2002-03, has declined considerably to Rs. 1248.15 crores and Rs. 1251.29 crores respectively.

— The average number of daily trades recorded during 2001-02 and 2002-03 numbered 5.17 lakhs and 5.63 lakhs respectively.

The average daily turnover and average number of daily trades during the quarter April-June 2003 were Rs. 1101.05 crores and 5.70 lakhs respectively.

Trading at BSE

The Stock Exchange,Mumbai had an open outcry trading system till March 1995 where member-brokers used to assemble in a trading ring for doing transactions in securities. It had switched over to a fully automated computerized mode of trading known as BOLT (BSE on Line Trading) System w.e.f. March 14, 1995. Through the BOLT system, the member-brokers now enter orders for purchase or sell of securities from Trader Work Stations (TWSs) installed in their offices instead of assembling in the trading ring. This system, which was initially both order and quote driven, is currently only order driven. The facility of placing of quotes has been discontinued w.e.f., August 13, 2001 in view of lack of market interest and to improve system-matching efficiency. The system, which is now only order driven, facilitates more efficient in-putting, processing, automatic matching and faster execution of orders in a transparent manner.

The trading in securities at the Exchange is conducted in an anonymous environment and the counterparty identity is not revealed. The buyers and sellers of securities do not know the names of each other.

The scrips traded on the BSE have been classified into 'A', 'B1', 'B2', 'F','G' and 'Z' groups.

The Exchange has for the guidance and benefit of investors classified the scrips in the Equity Segment in A', 'B1', & 'B2' based on certain qualitative and quantitative parameters which include number of trades, value traded, etc. for the guidance and benefit of investors.

The 'F' group represents the fixed income securities wherein 730 securities were listed as on June 30, 2003.

The Exchange commenced trading in Govt. Securities for retail investors under "G" group w.e.f. January 16, 2003 and 85 Govt. Securities are traded on the Exchange under this group as on June 30, 2003.

The 'Z' group was introduced by the Exchange in July 1999 and includes the companies which have failed to comply with the listing requirements of the Exchange and/or have failed to resolve investor complaints or have not made the required arrangements with both the Depositories, viz., Central Depository Services (I) Ltd. (CDSL) and National Securities Depository Ltd. (NSDL) for dematerialization of their securities.

Once the companies finalize the arrangements for dematerialization of their securities, trading and settlement in their scrips would be shifted to their respective erstwhile groups.

The Exchange also provides a facility to the market participants for on-line trading in "C" group which covers the odd lot securities in physical form in 'A', 'B1', 'B2' and 'Z' groups and Rights renunciations in all the groups of scrips in the Equity Segment.

The 'C' group facility can also be used by small investors for selling upto 500 shares in physical form in respect of scrips of companies where trades are required to be compulsorily settled by all investors in demat mode. This facility of selling physical shares in compulsory demat scrips is called an Exit Route Scheme.

With effect from December 31, 2001, trading in all securities listed in equity segment of the Exchange takes place in one market segment, viz., Compulsory Rolling Settlement Segment.

Computation of closing price of scrips in the Cash Segment

The closing price of scrips is computed by the Exchange on the basis of weighted average price of all trades executed during the last 15 minutes of the continuous trading session. However, if there is no trade recorded during the last 15 minutes, then the last traded price of a scrip in the continuous trading session is taken as the official closing price.

Compulsory Rolling Settlement (CRS) Segment: In order to bring about settlement efficiency and reduce settlement risk, the Group of 30 (commonly known as G-30) had recommended in 1989 that all secondary market across the globe should adopt a rolling Settlement cycle on T+3 basis by 1992, i.e., the trades should be settled by delivery of securities and payment of monies on third business days after the trade day.

With a view to implement the above recommendations, introduce the best international practices and to achieve higher settlement efficiency, trades in all the equity shares listed on the Exchange in CRS Segment, as mandated by SEBI, were required to be settled initially on T+5 basis w.e.f. December 31, 2001. As per the directive by SEBI, all transactions in all groups of securities in the Equity Segment and Fixed Income securities listed on the Exchange were required to be settled on T+3 basis w.e.f. April 1, 2002. Further, as per the mandate received from SEBI, the Exchange has since introduced the settlements for all groups of securities in the Equity Segment, "F" & "G" groups on T+2 basis w.e.f. from April 1, 2003. For some of the Securities the Stock Exchange is following T+1 settlement.

Under rolling settlements, unlike in the "account period settlements", the trades done on a particular day are settled after a given number of business days instead of settling all trades done during an 'account period' of a week or fortnight. A T+2 settlement cycle means that the final settlement of transactions done on T, i.e., trade day by exchange of monies and securities between the buyers and sellers respectively takes place on second business day (excluding Saturdays, Sundays, bank and Exchange trading holidays) after the trade day.

The transactions in securities of companies which have made arrangements for dematerialization of their securities are settled only in demat mode on T+2 on net basis, i.e., buy and sell positions of a member-broker in the same scrip are netted and the net quantity and value is required to be settled. However, transactions in securities of companies, which are in "Z" group or have been placed under "trade to trade" by the Exchange as a surveillance measure, are settled only on a gross basis and the facility of netting of buy and sell transactions in such scrips is not available. For example, if a member-broker buys and sells 100 shares of a company on the same day which is in "Z" group or on "trade to trade" basis, the two positions are not netted and the member-broker has to first deliver 100 shares at the time of pay-in of securities and then receive 100 shares at the time of pay-out of securities on the same day. Thus, if one fails to deliver the securities sold at the time of pay-in, it is treated as a shortage and the relevant quantity is auctioned/ closed-out by the Exchange.

The transactions in 'F' group securities representing "Fixed Income Securities" and "G" group representing Govt. Securities for retail investors are also settled at the Exchange on T+2 basis.

6A/7A: A mechanism whereby the obligation of settling the transactions done by a member-broker on behalf of a client is passed on to a custodian based on confirmation of latter. The custodian can confirm the trades done by the member-brokers on-line and upto 11 a.m. on the next trading day. The late confirmation of transactions by the custodian after 11:00 a.m. upto 12:15 p.m., on the next trading day is, however, permitted subject to payment of charges for late confirmation @ 0.01% of the value of trades confirmed or Rs. 10,000/-, whichever is less.

Thus, the pay-in and pay-out of funds and securities takes places on the second business day (i.e., excluding Saturday, Sundays and bank & Exchange trading holidays) of the day of the execution of the trade.

The Information Systems Department of the Exchange generates, inter-alia, the following statements, which can be downloaded by the member-brokers in their back offices on a daily basis.

a. Statements giving details of the daily transactions entered into by the member-brokers.
b. Statements giving details of margins payable by the member-brokers in respect of the trades executed by them.
c. Statements of securities and fund obligation.
d. Delivery/Receive orders for delivery/receipt of securities.

The settlement of the trades (money and securities) done by a member-broker on his own account or on behalf of his individual, corporate or institutional clients may be either through the member-broker himself or through a SEBI registered custodian appointed by him/client. In case the delivery/payment in respect of a transaction executed by a member-broker is to be given or taken by a registered custodian, then the latter has to confirm the trade done by a member-broker on the BOLT System through 6A-7A entry. For this purpose, the custodians have been given connectivity to BOLT System and have also been admitted as clearing member of the Clearing House. In case a transaction done by a member-broker is not confirmed by a registered custodian within the time permitted, the liability for pay-in of funds or securities in respect of the same devolves on the concerned member-broker.

The introduction of settlement on T+2 basis, as discussed above, has considerably reduced the settlement risk, ensured early receipt of securities and monies by the buyers and sellers respectively and has brought the Indian capital market on par with the internationally accepted standard of settlements.

SETTLEMENT AT BSE

Pay-in and Pay-out for 'A', 'B1', 'B2', 'C', "F", "G" & 'Z' group of securities

As discussed earlier, the trades done by the member-brokers in all the securities in CRS are now settled on the Exchange by payment of monies and delivery of securities on T+2 basis. All deliveries of securities are required to be routed through the Clearing House, except for certain off-market transactions which, although are required to be reported to the Exchange, may be settled directly between the concerned member-brokers.

The Information Systems Department of the Exchange generates Delivery and Receive Orders for transactions done by the member-brokers in A, B1, B2, F and G group scrips after netting purchase and sale transactions in each scrip whereas Delivery and Receive Orders for "C" & "Z" group scrips and scrips which are traded on the Exchange on "trade to trade" basis are generated on gross basis, i.e., without netting of purchase and sell transactions in a scrip. However, the funds obligations for the member-brokers are netted for transactions across all groups of securities.

The Delivery Order/Receive Order provides information like the scrip and quantity of securities to be delivered/received by the member-brokers through the Clearing House. The Money Statement provides scrip wise/item wise details of payments/ receipts of monies by the member-brokers in the settlement. The Delivery/Receive Orders and Money Statement, as stated earlier, can be downloaded by the member-brokers in their back office.

The securities, as per the Delivery Orders issued by the Exchange, are required to be delivered by the member-brokers in the Clearing House on the day designated for securities pay-in, i.e., on T+2 day.

Demat pay-in

The member-brokers can effect pay-in of demat securities to the Clearing House either through the National Securities Depository Ltd. (NSDL) or Central Depository Services (I) Ltd. (CDSL). In case of NSDL, the member-brokers are required to give instructions to their respective Depository Participants (DPs) specifying settlement no., settlement type, effective pay-in date, quantity, etc. As regards CDSL, the member-brokers give pay-in instructions to their respective DPs. The securities are transferred by the DPs to the Clearing Member (CM) Principal Account. The member-brokers are required to give confirmation to their DPs, so that securities are processed towards pay-in obligations. Alternatively, the member-brokers may also effect pay-in from the clients' beneficiary accounts. For this, the clients are required to mention the settlement details and clearing member-broker ID of the member-broker through whom they have sold the securities. Thus, in such cases the Clearing Members are not required to give any delivery instructions from their accounts.

Auto delivery facility

Instead of issuing Delivery instructions for their securities delivery obligations in demat mode in various scrips in a settlement /auction, a facility has been made available to the member-brokers of automatically generating Delivery instructions on their behalf from their CM Pool accounts maintained with NSDL and CM Principal Accounts maintained with CDSL. This auto delivery facility is available for CRS (Normal & Auction) and for trade to trade settlements. This facility is, however, not available for delivery of non-pari passu shares and shares having multiple ISINs. The member-brokers wishing to avail of this facility have to submit an authority letter to the Clearing House. This auto delivery facility is currently available for Clearing Member (CM) Pool accounts and Principal accounts maintained by the member-brokers with National Securities Depository Ltd. (NSDL) and Central Depositories Services (I) Ltd. (CDSL) respectively.

Pay-in of securities in physical form

In case of delivery of securities in physical form, the member-brokers have to deliver the securities to the Clearing Hose in special closed pouches along with the relevant details like distinctive numbers, scrip code, quantity, etc., on a floppy. The data submitted by the member-brokers on floppies is matched against the master file data on the Clearing House computer systems. If there is no discrepancy, then a scroll number is generated by the Clearing House and the securities are accepted.

The Clearing House arranges and tallies the securities received against the receiving memberwise report generated on the Pay-in day.

This process of receiving securities from the member-brokers against their sale obligations either in demat or physical mode is called securities pay-in.

Funds Pay-in

Once the reconciliation of securities is completed by the Clearing House, the bank accounts of member-brokers maintained with the nine clearing banks, are directly debited through computerized posting for their funds settlement obligations. Once the pay-in of securities and funds is complete, the Clearing House arranges for the pay-out of securities and funds.

In case of those members, whose funds pay-in obligations are returned by their clearing banks on account of insufficient funds in their bank accounts at the time of pay-in, their BOLT TWSs are now immediately de-activated during the trading hours itself, on receipt of such intimation from the clearing banks as against the earlier practice of de-activating their BOLT TWSs at the end of trading on that day. BOLT TWSs of such members remain de-activated till the pay-in obligations are cleared by them.

Securities Pay-out

In case of demat securities, the same are credited by the Clearing House in the Pool/Principal Accounts of the member-brokers. The Exchange has also provided a facility to the member-brokers for transfer of pay-out securities directly to the clients' beneficiary owner accounts without routing the same through their Pool/Principal accounts in NSDL/CDSL. For this, the concerned member-brokers are required to give a client wise break up file which is uploaded by the member-brokers from their offices to the Clearing House. Based on the break up given by the member-brokers, the Clearing House instructs depositories, viz., CDSL & NSDL to credit the securities to the Beneficiary Owners (BO) Accounts of the clients. In case delivery of securities received from one depository is to be credited to an account in the other depository, the Clearing House does an inter depository transfer to give effect to such transfers.

In case of physical securities, the Receiving Members are required to collect the same from the Clearing House on the pay-out day.

This process of passing on delivery of securities purchased by the member-brokers to them by the Clearing House is called pay-out of securities.

Funds Payout

The bank accounts of the member-brokers having pay-out of funds are credited by the Clearing House with the Clearing Banks on the same day. This process is referred to as Pay-out of Funds.

In case, if a member-broker fails to deliver the securities, then the value of shares delivered short is recovered from him at the standard/closing rate of the scrips on the trading day.

In case of Rolling Settlements, pay-in and pay-out of both funds and securities, as stated earlier, is completed on the same day.

The member-brokers are required to make payment for securities sold and/ or deliver securities purchased to their clients within one working day (excluding Saturday, Sunday, bank & Exchange trading holidays) after the pay-out of the funds and securities for the concerned settlement is completed by the Exchange. This is the timeframe permitted to the member-brokers of the Exchange to settle their funds/securities obligations with their clients as per the Byelaws of the Exchange.

The settlement calendar, which indicates the dates of the various settlement related activities, is drawn by the Exchange in advance on a quarterly basis and is circulated among the market participants. The settlement calendars so drawn have been strictly adhered to by the Exchange and there has been generally no case of clubbing of settlements or postponement of pay-in and/ or pay-out during the last over seven years.

The Exchange maintains database of fake/forged, stolen, lost and duplicate securities in physical form with the Clearing House so that distinctive numbers submitted by member-brokers in case of physical securities on delivery may be matched against the database to weed out bad paper from circulation at the time of introduction of such securities in the market. This database has also been made available to the member-brokers so that both delivering and receiving member-brokers can check the entry of fake, forged and stolen shares in the market.

Basket Trading System

The Exchange commenced trading in the Derivatives Segment with effect from June 9, 2000 to enable the investors to, inter-alia, hedge their risks. Initially, the facility of trading in the Derivatives Segment was confined to Index Futures. Subsequently, the Exchange introduced the Index Options and Options & Futures in select individual stocks. The investors in cash market had felt a need to limit their risk exposure in the market to movement in Sensex.

With a view to provide investors the facility of creating Sensex linked portfolios and also to create a linkage of market prices of the underlying securities of Sensex in the Cash Segment and Futures on Sensex, the Exchange has provided to the investors as well its member-brokers, a facility of Basket Trading System on BOLT. In the Basket Trading System, the investors through the member-brokers of the Exchange are able to buy/sell all 30 scrips of Sensex in one go in the proportion of their respective weights in the Sensex. The investors need not calculate the quantity of Sensex scrips to be bought or sold for creating Sensex linked portfolios and this function is performed by the system. The investors can also create their own baskets by deleting certain scrips from 30 scrips in the Sensex. Further, the investors can alter the weights of securities in such profiled baskets and enter their own weights. The investors can also select less than 100% weightage to reduce the value of the basket as per their own requirements.

To participate in this system, the member-brokers need to indicate number of Sensex basket(s) to be bought or sold, where the value of one Sensex basket is arrived at by the system by multiplying Rs.50 to prevailing Sensex. For e.g., if the Sensex is 4000, then value of one basket of Sensex would be 4000 ´ 50= i.e., Rs.2,00,000/-. The investors can also place orders by entering value of Sensex portfolio to be bought or sold with a minimum value of Rs. 50,000/- for each

order.
The Basket Trading System provides the arbitrageurs an opportunity to take advantage of price differences in the underlying Sensex and Futures on the Sensex by simultaneous buying and selling of baskets comprising the Sensex scrips in the Cash Segment and Sensex Futures. This is expected to provide balancing impact on the prices in both cash and futures markets.
The Basket Trading System, thus, meets the need of investors and also improves the depth in cash and futures markets.

Surveillance at BSE

The main objective of the Surveillance function of the Exchange is to promote market integrity in two ways, first, by monitoring price and volume movements (volatility) as well as by detecting potential market abuses at a nascent stage, with a view to minimizing the ability of the market participants, both in Cash and Derivative market, to influence the price of the scrip/series in the absence of any meaningful information, and second, by managing default risk by taking necessary actions timely. All the instruments traded in the equity segment of Cash and Derivative market come under the Surveillance umbrella of BSE.
Surveillance activities at the Exchange are divided broadly into two major segments, namely, price monitoring and position monitoring. Price monitoring is mainly related to the price movement/abnormal fluctuation in prices or volumes etc. whereas the position monitoring relates mainly to abnormal positions of members, etc. in order to manage default risk.

Market Abuse

Market abuse is a broad term which includes abnormal price/ volume movement, artificial transactions, false or misleading impressions, insider trading, etc. In order to detect aberrant behaviour/ movement, it is necessary to know the normal market behaviour. The department uses various tools to determine normal and abnormal market behaviour. The necessary actions are initiated like imposition of special margin, reduction of circuit filters, trade to trade settlement, suspensions, de-activation of terminals, etc. to control abnormal market behaviour. The department carries out investigation, if necessary, based on the preliminary examination/analysis and suitable actions are taken against members involved based on the investigation. The detailed explanation of the various Surveillance activities are as follows:

Price Monitoring

The functioning of the Price Monitoring is broadly divided into following activities:

i. On-Line Surveillance
ii. Off-Line Surveillance
iii. Derivative Market Surveillance
iv. Investigations
v. Surveillance Actions
vi. Rumour Verification
vii. Pro-active Measures

i. On line Surveillance

One of the most important tools of the Surveillance is the On-line Real Time Surveillance system which was commissioned in 1999 with main objectives of detecting potential market abuses at a nascent stage to reduce the ability of the market participants to unduly influence the price and volumes of the scrips traded at the Exchange, improve the risk management system and strengthen the self regulatory mechanism at the Exchange.

The system has a facility to generate the alerts on-line, in real time, based on certain preset parameters like price and volume variations in scrips, members taking unduly large positions not commensurate with their financial position or having large concentrated position(s) in one or few scrips, etc. An alert is a measure of abnormal behaviour. An Alert occurs in the Surveillance system when a metric behaves significantly differently from its benchmark. The alerts generated by the system are analyzed and corrective action based on preliminary investigations is taken in such cases. The system also provides facility to access trades and orders of members.

ii. Off-Line Surveillance

The Off-Line Surveillance system comprises of the various reports based on different parameters and scrutiny thereof.

— High/Low Difference in prices
— % change in prices over a week/fortnight/month
— Top N scrips by Turnover
— Trading in infrequently traded scrips
— Scrips hitting New High/Low

The Surveillance actions or investigations are initiated in the scrips identified from the above-stated reports.

iii. Derivative Market Surveillance

Areas of Focus

— Abnormal fluctuation in the prices of a Series
— Market Movement (Cash vis-à-vis Derivative)
— Member Concentration (Cash vis-à-vis Derivative)
— Closing Price Manipulation (Cash & Derivative)

iv. Investigations

The Exchange conducts in-depth investigations based on preliminary enquiries/ analysis made into trading of the scrip as also at the instance of SEBI. In case irregularities observed, necessary actions are initiated and/or investigation case forwarded to SEBI, if necessary.

v. Surveillance Actions

Special Margins

Special margins are imposed on scrips which have witnessed abnormal price/ volume movements. Special margin is imposed @ 25 % or 50 % as the case may be, on the client wise net outstanding purchase or sale position (or on both side) by the department.

Reduction of Circuit Filters

The circuit filters are reduced in case of illiquid scrips or as a price containment measure in low volume scrips. The circuit filters are reduced to 10 % or 5 % or 2 % as the case may be, based on the criteria decided by the Exchange.

Circuit Breakers

In addition to the price bands on individual scrips, SEBI decided to implement index based market wide circuit breakers system, w.e.f., July 02, 2001.The circuit breakers are applicable at three stages of the index movement either way at 10 %, 15 % and 20 %. These circuit breakers will bring about a coordinated trading halt in both Equity and Derivative market. The market wide circuit breakers can be triggered by movement of either BSE SENSEX or the NSE NIFTY, whichever is breached earlier. The percentage movement are calculated on the closing index value of the quarter. These percentages are translated into absolute points of index variation (rounded off to the nearest 25 points in case of SENSEX). At the end of each quarter, these absolute points of index variations are revised and made applicable for the next quarter. The absolute points of SENSEX variation triggering market wide circuit breaker for a specified time period for any day of the quarter is informed by the Exchange through Press Release from time to time.

Trade to Trade

If a scrip is shifted on a Trade-to trade settlement basis, selling/ buying of shares in that scrip would result into giving/ taking delivery of shares at the gross level and no intra day/ settlement netting off/ square off facility would be permitted. The scrips which form part of 'Z group' are compulsorily settled on a trade to trade settlement basis. In addition to that Surveillance department transfers various scrips from time to time on a trade to trade settlement basis to contain the excessive volatility and/or abnormal volumes in the scrip.

Suspension of a scrip

The scrips are suspended by the Surveillance department in exceptional cases pending investigation or if the same scrip is suspended by any other Stock Exchange as a Surveillance action.

Warning to Members

The department may issue verbal/ written warning to member/s when market manipulation in the scrip is suspected.

Imposition of penalty/suspension/de-activation of terminals

The department imposes penalty or deactivate BOLT terminals or suspend the member/s who are involved in market manipulation, based on the input/ evidence available from investigation report or as and when directed by SEBI.

vi. Rumour Verification

The following steps are involved in Rumour verification process:

— Surveillance Department liaises with Compliance Officers of companies to obtain comments of the company on various price sensitive corporate news items appearing in the selected New Papers.

— Comments received from the companies are disseminated to the Market by way of BOLT Ticker and/ or Notices in the Bulletin.

— Show cause notices are issued to companies which do not reply promptly to the Exchange.

— Investigations based on rumour verifications are carried out, if required, to detect cases of suspected insider trading

vii. **Pro-active Measures**

— The Department compiled and disseminated a list of companies who have changed their names to suggest that their business interest is in the software Industry.

— List of NBFC's, whose application for registration rejected by RBI, was compiled and disseminated by the department.

b. **Position Monitoring**

i. Statement of Top 100 Purchasers/Sellers
ii. Concentrated Purchases/Sales
iii. Purchases/Sales of Scrips having Thin Trading
iv. Trading in B1, B2 and Z group Scrips
v. Pay-in liabilities above a Threshold Limit
vi. Verification of Institutional Trades
vii. Snap Investigation
viii. Market Intelligence

The Surveillance Department closely monitors outstanding exposure of members on a daily basis. For this purpose, it has developed various off-line and on-line market monitoring reports. The reports are scrutinised to ascertain whether there is excessive purchase or sale position build up compared to the normal business of the member, whether there are concentrated purchases or sales, whether the purchases have been made by inactive or financially weak members and even the quality of scrips is considered to assess the quality of exposure. Based on analysis of the above factors and the margins already paid and the capital deposited by the member, ad-hoc margins/early pay-in calls are made, if required. Some members are even advised to reduce their outstanding exposure in the market. Trading restrictions are placed on their business as and when deemed fit.

The department thus executes the Risk Management functions to avert possible payment default of members by taking timely corrective measures. The following key areas are examined to assess the market risk involved.

i. **Statement of Top 100 Purchasers/Sellers**

Statements of top 100 net purchasers and top 100 net sellers in case of A, B1, B2 and Z group of scrips are scrutinized, on a daily basis. This enables the Department to keep a watch on the exposure of the members, ascertain the quality of exposures, measure the risk vis-a-vis cover available by way of margins, capital etc. and initiate action such as imposition of ad-hoc margins, trading restriction etc. on the members.

A detailed report on the net outstanding positions of top purchasers and top sellers with exposures in individual scrips above certain limit, margin cover available etc., is prepared on a daily basis.

ii. **Concentrated Purchases/Sales**

The concentration in purchases/sales of a member in a few scrips could be considered risky. In case, such a situation is noticed, fundamentals of the scrips, their daily turnover, their nature of transactions is ascertained. Thereafter, based on the market risk perception appropriate surveillance actions are taken.

iii. **Purchases/Sales of Scrips having Thin Trading**
Purchases/sales by members in scrips having thin trading is closely scrutinised as comparatively high market risk is involved in trading in such scrips. Details of trades in such scrips are called from the members to assess the market risk involved and decide on the appropriate surveillance action.

iv. **Trading in B1, B2 and Z Group Scrips**
The Exchange has classified the scrips listed on the Exchange into 'A', 'B1', 'B2' and 'Z' groups. In view of the price manipulation witnessed in a few B1, B2 and Z group scrips and also as a risk management measure, the Exchange has prescribed Exposure limits in B1, B2 and Z group scrips in a single Rolling Settlement.

v. **Pay-in liabilities of members above a threshold limit**
The pay-in liability of members above a certain threshold limit is monitored with respect to the pay-in amount of the members, the members capital, the margin cover available to the Exchange against the members pay-in liability, etc. In case of inadequate margin cover, the reasons of the pay-in are ascertained. If warranted, advance pay-in is called to ensure that pay-in is completed smoothly.

vi. **Verification of Institutional Trade**
The institutional trades executed by the member-brokers are verified to ascertain the genuineness of trades.

vii. **Snap Investigation**
The Department also carries out, wherever considered necessary, preliminary investigation of certain dealings to verify irregularities. Further actions, viz., referring the case for detailed investigations, referring the cases to the Disciplinary Action Committee (DAC) of the Exchange for taking disciplinary action against members, referring cases to the Scrutiny Committee of the Exchange to re-assess the financial soundness of the members etc., are taken depending on the findings of preliminary investigation.

viii. **Market Intelligence**
The rumours floating in the market are verified with the data available with the Exchange. Newspapers, Television news channels are referred to ascertain the national and global factors affecting the market sentiments. This enables the Exchange to avert market problems before it causes a serious damage.
On assessment of the market risk, decisions to call ad-hoc margins/early pay-in, advising the member to limit his business, summoning him for explanation, placing trading restriction, deactivation of BOLT TWS, etc. are taken.

III. NATIONAL STOCK EXCHANGE OF INDIA LTD. (NSEIL)[*a]

Based on Pherwani Committees report submitted in June, 1991, the National Stock Exchange of India Limited (NSEIL) was established to provide an efficient system eliminating all the deficiencies of stock exchanges and is geared to meet the requirements of the large investor population. It is a single stock exchange and all other centres are electronically linked to this

exchange.
NSEIL was promoted by leading FIs at the behest of Government of India and was incorporated in November 1992 as a tax-paying company unlike other stock exchanges in the country. On its recognition as a stock exchange under the Securities Contracts (Regulation) Act, 1956 in April 1993, NSEIL commenced operations in the Wholesale Debt Market (WDM) segment in June 1994, operations in the Capital Market (CM) segment in November 1994, and operations in derivatives segment in June 2000. During 1999-2000, NSEIL accounted for 41% of total turnover in equities and 55% of turnover of government securities in the country.

Capital Market Segment

The Capital Market (CM) segment of NSEIL provides a fully automated screen based trading system for trading of equity and preference shares, debentures, warrants and coupons. The trading system, known as the National Exchange for Automated Trading (NEAT) system, is an anonymous order-driven system and operates on a strict price/time priority. It enables members from across the country to trade simultaneously with enormous ease and efficiency. It provides tremendous flexibility to the users in terms of kinds of orders that can be placed on the system. Several time-related (Good-till-Cancelled, Good-till-Day, Immediate-or-Cancel), price-related (buy/sell limit and stop-loss orders) or volume related (All-or-None, Minimum Fill, etc.) conditions can be easily built into an order. Orders are sorted and matched automatically by the computer keeping the system transparent, objective and fair. The trading system also provides complete market information on-line, which is updated on real time basis.

Turnover

The turnover of the CM segment increased rapidly from Rs. 1,805 crore during the first year of its operations, i.e. 1994-95 (November-March), to Rs. 10,99,535 crore during 2003-04. The average daily turnover also increased by leaps and bounds from Rs. 7 crore during November 1994 to Rs. 3,948 crore during August 2004.

Market Capitalisation

The total market capitalisation of securities available for trading on the CM segment has increased nearly three-fold from Rs. 3,63,350 crore as at end March 1995 to Rs. 10,20,426 crore as at end March 2000.

Wholesale Debt Market Segment

The WDM segment provides the only formal trading platform for trading of a wide range of debt securities. Initially, government securities, treasury bills and bonds issued by public sector undertakings (PSUs) were made available for trading. This range has been widened to include non-traditional instruments like floating rate bonds, zero coupon bonds, index bonds, commercial papers, certificates of deposit, corporate debentures, state government loans, SLR and non-SLR bonds issued by financial institutions, units of mutual funds and securitised debt.
The WDM trading system, known as NEAT (National Exchange for Automated Trading), is a fully automated screen based trading system that enables members across the country to trade simultaneously with enormous ease and

efficiency. The trading system is an order driven system, which matches best buy and sell orders on a price/time priority.

Trading system provides two market sub-types: continous market and negotiated market. In continuous market, the buyer and seller do not know each other and they put their best buy/sell orders, which are stored in order book with price/time priority. If orders match, it results into a trade. The trades in WDM segment are settled directly between the participants, who take an exposure to the settlement risk attached to any unknown counterparty. In the NEAT-WDM system, all participants can set up their counter-party exposure limits against all probable counterparties. This enables the trading member/participant to reduce/minimise the counterparty risk associated with the counterparty to trade. A trade does not take place if both the buy/sell participants do not invoke the counter-party exposure limit in the trading system.

In the negotiated market, the trades are normally decided by the seller and the buyer, and reported to the Exchange through the broker. Thus deals negotiated or structured outside the exchange are disclosed to the market through NEAT-WDM system. In negotiated market, as buyers and sellers know each other and have agreed to trade, no counter-party exposure limit needs to be invoked.

The trades on the WDM segment could be either outright trades or repo transactions with flexibility for varying days of settlement (T+0 to T+5) and repo periods (3 to 14 days). For every trade, it is necessary to specify the number of settlement days and the trade type (repo or non-repo) and in the event of a repo trade, the repo term.

Turnover

The turnover on WDM segment has been growing rapidly. The turnover increased from Rs. 6,781 crore during 1994-95 (June- March) to Rs. 3,04,216 crore during 1999-2000. The average daily turnover increased from Rs. 30 crore to Rs. 1,035 crore during the same period.

The transactions in dated government securities account for a predominant share of transactions on the WDM segment.

Market Capitalisation

Market capitalisation of the WDM segment has witnessed a constant increase indicating an increase in the number of securities available for trading on this segment. Total market capitalisation of the securities available for trading on WDM segment stood at Rs. 4,94,033 crore as at end March 2000. The government securities accounted for 65% of total market capitalisation on the same date. The Futures and Option trading system, called NEAT-F&O trading system, provides a fully automated screen-based trading for S&P CNX Nifty futures on a nationwide basis and an online monitoring and surveillance mechanism. It supports an order driven market and provides complete transparency of trading operations. It is similar to that of trading of equities in the CM segment.

The NEAT-F&O trading system is accessed by two types of users. The Trading Member (TM) has access to functions such as, order entry, order matching, order and trade management. The Clearing Member (CM) uses the trader workstation for the purpose of monitoring the trading member(s) for whom he clears the trades. Additionally, he can enter and set limits to position, which a trading member can take.

Contracts

Futures contract on the NSEIL is based on S&P CNX Niftv Index. Currently, it has a maximum of 3-month expiration cycle. Three contracts are available for trading with 1 month, 2 months and 3 months expiry. A new contract is introduced on the next trading day following the expiry of the near month contract. Various conditions like, Good-till-Day, Good-till-Cancelled, Good-till-Date, Immediate or Cancel, Stop loss, etc. can be built into an order.

Clearing and Settlement

NSCCL undertakes clearing and settlement of all deals executed on the NSEIL's Derivatives segment. It acts as legal counterparty to all deals on the Derivatives segment and guarantees settlement.

Derivatives Segment

In the Derivatives segment, NSCCL has admitted Clearing Members (CMs) distinct from Trading Members (TMs) in line with the 2-tier membership structure stipulated by SEBI to enable wider participation in the Derivatives segment. All trades on the Derivatives segment are cleared through a CM of NSCCL.

Nifty index futures contracts are cash settled, i.e. through exchange of cash differences in value. Settlement is done on a daily basis by marking to market all open positions on the basis of the daily settlement price. The contracts are finally settled on expiry of the Nifty index futures contract when NSCCL marks the open positions of a CM to the closing price of the underlying index and resulting profit/loss is settled in cash.

Securities Lending

This method is regulated by SEBI which introduced guidelines in 1997 for this purpose. Under the scheme, a person with idle shares can lend them to another who does not have the shares to fulfill his obligation under a trade finalised by him. There will be no direct contacts between the borrower and lender of securities. An intermediary who can guarantee the scheme and make good the loss in the borrower who fails to honour his obligations can alone provide substance to the scheme. The borrower has to put up collateral for his borrowings and pay cash margin levied on the securities by the authorities. Income from securities lending is exempt from Capital Gains Tax.

National Securities Clearing Corporation Limited

This company incorporated as a wholly owned subsidiary of the National Stock Exchange of India Limited carries out clearing and settlement of the trades executed in the capital market segment of National Stock Exchange. This company completes the settlement promptly without delay or deferment. It operates on behalf of the clearing members from and to regional clearing centres and central clearing centres at Mumbai. It was the first organisation to start pre-delivery verification to detect bad papers in the form of fake or forged certificates or lost and stolen share certificates through the automated mechanism of the clearing corporation. A facility is provided to lend/borrow securities as well as funds at market determined rates and enables timely delivery of securities with efficiency. This corporation is connected to National Securities Depository Limited (NSDL) and Central Depositories Services (India) Limited (CDSL) and carries out clearing and settlement services for other exchanges as well as for Index Futures.

Trading and Settlement at NSE

NSE introduced for the first time in India, fully automated screen based trading. It uses a modern, fully computerised trading system designed to offer investors across the length and breadth of the country a safe and easy way to invest. The NSE trading system called 'National Exchange for Automated Trading' (NEAT) is a fully automated screen based trading system, which adopts the principle of an order driven market.

Clearing & Settlement (Equities)

NSCCL carries out clearing and settlement functions as per the settlement cycles of different sub-segments in the Equities segment.

The clearing function of the clearing corporation is designed to work out a) what counter parties owe and b) what counter parties are due to receive on the settlement date. Settlement is a two way process which involves legal transfer of title to funds and securities or other assets on the settlement date. NSCCL has also devised mechanism to handle various exceptional situations like security shortages, bad delivery, company objections, auction settlement etc.

NSCCL has empanelled 8 clearing banks to provide banking services to trading members and has established connectivity with both the depositories for electronic settlement of securities.

Clearing

Clearing is the process of determination of obligations, after which the obligations are discharged by settlement.

NSCCL has two categories of clearing members: trading members and custodians. The trading members can pass on its obligation to the custodians if the custodian confirms the same to NSCCL. All the trades whose obligation the trading member proposes to pass on to the custodian are forwarded to the custodian by NSCCL for their confirmation. The custodian is required to confirm these trade on T + 1 days basis.

Once, the above activities are completed, NSCCL starts its function of Clearing. It uses the concept of multi-lateral netting for determining the obligations of counter parties. Accordingly, a clearing member would have either pay-in or pay-out obligations for funds and securities separately. Thus, members pay-in and pay-out obligations for funds and securities are determined latest by T + 1 day and are forwarded to them so that they can settle their obligations on the settlement day (T+2).

Cleared and non-cleared deals

NSCCL carries out the clearing and settlement of trades executed in the following sub-segments of the Equities segment:

1. All trades executed in the Book entry/Rolling segment.
2. All trades executed in the Limited Physical Market segment.

NSCCL does not undertake clearing and settlement of deals executed in the Trade for Trade sub-segment of the Equities (Capital Market) segment of the

Exchange. Primary responsibility of settling these deals rests directly with the members and the Exchange only monitors the settlement. The parties are required to report settlement of these deals to the Exchange.

Clearing Mechanism

Trades in rolling segment are cleared and settled on a netted basis. Trading and settlement periods are specified by the Exchange/Clearing Corporation from time to time. Deals executed during a particular trading period are netted at the end of that trading period and settlement obligations for that settlement period are computed. A multilateral netting procedure is adopted to determine the net settlement obligations

In a rolling settlement, each trading day is considered as a trading period and trades executed during the day are netted to obtain the net obligations for the day.

Trade-for-trade deals and Limited Physical Market deals are settled on a trade for trade basis and settlement obligations arise out of every deal.

Trading in Retail Debt Segment

Trading in the Retail Debt Market takes place in the same manner in which the trading takes place in the equities (Capital Market) segment. The RETDEBT Market facility on the NEAT system of Capital Market Segment is used for entering transactions in RDM session.

Members eligible for trading in RDM segment

Trading Members who are registered members of NSE in the Capital Market segment and Wholesale Debt Market segment are allowed to trade in Retail Debt Market (RDM) subject to fulfilling the capital adequacy norms.

Trading Members with membership in Wholesale Debt Market segment only, can participate in RDM on submission of a letter in the prescribed format

Trading System

Trading in RDM also take place on the 'National Exchange for Automated Trading' (NEAT) system, a fully automated screen based trading system, which adopts the principle of an order driven market.The RETDEBT Market facility on the NEAT system of Capital Market Segment is used for entering transactions in RDM session.

Features of RETDEBT Market on NEAT System

The trading system features and user navigation for RETDEBT Market are described below. Further details are available on the on-line help facility of NEAT system.

1. Setting up Securities in Market Watch – For setting up securities in the Market Watch screen, the user has to press the function key [F4], enter the required details in Symbol, Series and Market Type fields and press [Enter].

   The default option displayed in the market type field is ‘N’. This can be changed to ‘D’ using the Up/Down arrow keys.
2. Order Entry – Buy/ Sell orders can be entered in RETDEBT Market using the function keys [F1] and [F2] and selecting ‘RD’ in the Book Type field.
3. Quantity – Order quantity should be in multiples of Market Lot. Quantity conditions such as MF, AON and DQ are not allowed.
4. Price—Members can enter either market orders or limit price orders. Order

price for limit price orders should be in multiples of tick size.

5. PRO/CLI/WHS – In the Pro/Cli/Whs field only ‘Pro’ and ‘Cli’ orders are allowed. ‘WHS’ option is not available.
6. Time Conditions – Members can specify time conditions as ‘Day’ or ‘IOC’.
7. Participant Code – A valid Participant Code can be entered in this field. Other options allowed are ‘O’, ‘C’, ‘NCIT’ 'INST' and the trading member’s own id. Orders in book type NT and SL are not allowed.
8. Order Cancellation/Modification – Order cancellation and modification is allowed for orders entered in the RETDEBT Market. Both Single and Quick Order Cancellation functions are available. In order to effect Quick Cancellation of orders for a security in RETDEBT Market, a member has to press [Shift+F3] to invoke Quick Order Cancellation screen and select ‘RD’ in the Book Type field. Quick Cancellation can also be done for all securities in the RETDEBT Market by selecting the Book Type as ‘RD’ and other parameters as relevant.
9. MBP—Member can query order information for the RETDEBT Market in MBP by selecting ‘RETDEBT’ as book type in the selection screen. Orders are stacked according to price in MBP. The high, low, last trade price, percentage change and average trade price figures are calculated with respect to trades in RETDEBT Market.
10. Market Inquiry—Security statistics for RETDEBT market can be viewed by selecting ‘RETDEBT’ as market type.
11. Outstanding Orders/Activity log/ Previous Trade—Outstanding order/ Activity log/Previous Trade information in a particular security can be viewed for RETDEBT Market by selecting the book type ‘RETDEBT’ in the respective selection screens.
12. Order and Trade Confirmation Slips—The order confirmation slip for orders entered in RETDEBT Market displays ‘RD’ as Book Type field. Similarly, trade confirmation slip generated for RETDEBT Market trades show ‘D’ in the Market Type field.
13. Net Position – The Net Position screen displays consolidated statistics for all markets as well as separately for each market.
14. Market Movement – Market Movement statistics for a security can be viewed by selecting market type as ‘RETDEBT’.
15. Most Active Securities – This screen display consolidated statistics i.e. Traded value, traded quantity, no of trades for a security across the markets. However, price statistics displayed in this screen are with respect to Normal Market only.
16. On-line Backup– In the On-line Backup function a facility is provided to select order/trades based on Market Type. Alternately, members can take a backup for all markets by selecting ‘All’ in the Market Type field.
17. Full Message Display – In Full Message Display, messages can be filtered on Symbol and Series. The option to filter messages for a market type is presently not available.
18. Offline Order Entry – This function is available for RETDEBT Market. The structure for the input file is given in the online help.
19. Branch/User Order Value Limit—Branch/User Order Limit is applicable for

a particular Branch/User for orders across all Markets.

20. Securities Order Quantity Limit—Securities Order Quantity Limit is applicable for a particular security across all Markets.
21. Order Limits- Order limits set by a user are applicable for a single order across all Markets.
22. Ticker Selection – A facility is provided for filtering securities in the ticker for RETDEBT market.
23. Reports – Trades report generated for members i.e. Trades Done, Order Log and Open Orders report, displays records in ascending order of security name. Within a security records are displayed by Market Type.
24. Bhav Copy—Security statistics pertaining to RETDEBT Market trades are shown separately in the Market Statistics report.

The securities available in this segment will not available in F & O and inquiry terminal.

Trading Cycle

Trading in Retail Debt Market is permitted under Rolling Settlement, where in each trading day is considered as a trading period and trades executed during the day are settled based on the net obligations for the day.

Settlement is on a T+2 basis i.e. on the 2nd working day. For arriving at the settlement day all intervening holidays, which include bank holidays, NSE holidays, Saturdays and Sundays are excluded. Typically trades taking place on Monday are settled on Wednesday, Tuesday's trades settled on Thursday and so on.

Settlement

Primary responsibility of settling trades concluded in the WDM segment rests directly with the participants and the Exchange monitors the settlement. Mostly these trades are settled in Mumbai. Trades are settled gross, i.e. on trade for trade basis directly between the constituents/participants to the trade and not through any Clearing House mechanism. Thus, each transaction is settled individually and netting of transactions is not allowed.

Settlement is on a rolling basis, i.e. there is no account period settlement. Each order has a unique settlement date specified upfront at the time of order entry and used as a matching parameter. It is mandatory for trades to be settled on the predefined settlement date. The Exchange currently allows settlement periods ranging from same day (T+0) settlement to a maximum of (T+2).

On the scheduled settlement date, the Exchange provides data/information to the respective member/participant regarding trades to be settled on that day with details like security, counter party and consideration.

The participants through their Subsidiary General Ledger (SGL) account (a book entry settlement system) settle government securities including treasury bills with RBI or through exchange of physical certificates. Other instruments are settled through delivery of physical securities.

Where trade is settled through the SGL account, exchange of securities and funds is done on DVP basis. Where trade is settled through delivery of certificates, the consideration is paid through cheque, payorder, Banker's cheque or RBI cheque.

The required settlement details, i.e. certificate no., SGL form no., Cheque no., constituent etc. are reported by the member/participant to the Exchange. In case of Repo trades the settlement details of the forward leg is also reported. The Exchange closely monitors the settlement of transactions through the reporting of settlement details by members and participants. In case of deferment of settlement or cancellation of trade, participants are required to seek prior approval from the Exchange. For any dispute arising in respect of the trades or settlement, the exchange has established arbitration mechanism for resolving the same.

IV. STRAIGHT THROUGH PROCESSING

The global securities market is passing through an interesting phase. Driven by globalization of the securities market, technology innovations and increasing trade volumes, the financial industry is moving towards Straight Through Processing. Straight Through Processing (STP) is generally understood to be a mechanism that automates the end to end processing of transactions of financial instruments. It involves use of a system to process or control all elements of the work flow of a financial transaction, what are commonly known as the Front, Middle, Back office and General Ledger. In other words, STP allows electronic capturing and processing of transactions in one pass from the point of order origination to final settlement. STP thus streamlines the process of trade execution and settlement and avoids manual entry and re-entry of the details of the same trade by different market intermediaries and participants. Usage of STP enables orders to be processed, confirmed, settled in a shorter time period and in a more cost effective manner with fewer errors. Apart from compressing the clearing and settlement time, STP also provides a flexible, cost effective infrastructure, which enables e-business expansion through online processing and access to enterprise data.

Advantages of Straight Through Processing

- Reduced risk
- Automation of manual process minimizing errors
- Improved operational efficiency in handling larger volumes
- Facilitates movement towards shorter settlement cycles (T+1)
- Lower cost per trade
- Timely settlement of trades and instructions
- Eliminates paper work and minimizes manual intervention
- Enables increased cross border trading (FII trades)
- Greater transparency with clear audit trail
- Increases competitive advantage of our markets
- Messaging standards as per ISO 15022 standards

Straight Through Processing (STP) thus aims to bring in non-duplication of work, efficiency and automation of the manual procedures right from trade initiation to settlement processes.

SEBI had mandated the use of Straight Through Processing (STP) system for all institutional trades w.e.f. July, 2004. In order to regulate the STP service it had also issued SEBI (STP Centralised Hub and STP Service Providers) Guidelines, 2004 (STP Guidelines) which also prescribes the model agreement between the STP centralised hub and the STP service providers. STP guidelines prescribes the eligibility criteria and conditions of approval for the STP centralised hub and the STP service providers, obligations and responsibilities of the STP centralised hub and the STP service providers and code of conduct for the STP service providers. The STP centralised hub and the STP service providers are required to abide by these Guidelines. To prescribe contractual obligations between the STP centralised hub and the STP service providers and to facilitate standardisation of service, a model agreement between the STP centralised hub and the STP service providers has also been prescribed by SEBI as Schedule II to the Guidelines. The agreement between the STP centralised hub and the STP service provider includes the provisions included in the model agreement.

SEBI (STP Centralised Hub And STP Service Providers) Guidelines, 2004

The Guidelines define "STP centralised hub" to mean an infrastructure set-up by a person or entity for the purpose of rendering STP service by providing a platform for communication between different STP service providers.

The term "STP message" under SEBI regulations Includes all the messages for electronic trade processing with a common messaging standard as may be defined by SEBI from time to time. "STP service" means the setting up and maintaining of infrastructure to create an electronic communication network to facilitate information exchange with respect to securities market transactions between various market participants from the stage of trade initiation to final settlement through a STP system flow as may tie determined by SEBI from time to time.

The expression "STP service provider" in the guidelines mean a person or entity providing STP service to STP users to the extent of conveying messages between a STP user and the STP centralised hub and/or between two STP users.

"STP user" means all the users of the STP service and includes such users as are stipulated by SEBI.

Eligibility Criteria for STP Centralised Hub and STP Service Providers

SEBI Regulation provides that no person can act as an STP centralised hub or a STP Service provider unless it obtains approval from SEBI to provide such service. It has been provided that SEBI while granting a certificate of approval shall take into account the following factors:

i. whether the applicant is a person or entity with a minimum networth as may be prescribed from time to time,
ii. whether the applicant has adequate infrastructure facilities setup in India like office space, equipment and manpower with adequate experience in dealing in securities market and adequate expertise in providing necessary services and software solutions.

Obligations and Responsibilities of STP Centralised Hub

The STP centralised hub is required to comply the requirement of eligibility criteria as specified by SEBI and abide by all the provisions of the Act. Rules, Regulations, Guidelines, Resolutions, Notifications, Directions, Circular, etc. as may be issued by the Government of India/TRAI/Department of Telecommunications and SEBI from time to time.

The centralised hub should obtain such approval/s from such authorities as may be necessary to function as a centralised hub. It should also obtain a digital signature certificate from a Certifying Authority and ensure that such digital signature certificate is valid and in force at all times. A copy of the certificate is required to be submitted to all the recognized STP service providers.

The STP centralised hub is under an obligation to deliver a consistent and secure communication platform and should establish continuous connectivity with all the recognized STP service providers to the best of its ability. It should also verify the digital signature certificate furnished by the STP Service Provider before connecting it to the STP centralized hub. It is going to confirm authenticity, integrity and non-reputability of all messages submitted by the STP Service Provider and also ensures that the message received from the STP service provider is in the specified messaging standard. It helps in the prompt delivering of the messages to the recipient STP service provider and also ensures that only the intended STP Service Provider receives the message.

The STP centralised hub is required to digitally sign all messages sent to the STP service provider, maintain a directory of all STP service providers and STP users and maintain a complete record of the flow of messages processed. The records of the STP centralised hub shall be open for inspection by SEBI or any other person duly authorised by SEBI for this purpose. It cannot modify/amend the communication protocol without consulting all the approved STP service providers and ensures that the message is not misused or tampered with while in its possession.

Thus STP centralised hub maintains confidentiality, of information about its users and shall not divulge the same to other clients, the press or any other person except in accordance with law or as per the directions of any court of law or of SEBI.

Obligations and Responsibilities of STP Service Provider

The STP service provider has to establish connectivity with the STP centralised hub before providing STP service to its users. He has to provide the necessary details of the STP users connected with it and all its details to the STP centralised hub for the purpose of creating and maintaining a directory of STP service providers and STP users. The STP service provider is required to comply with the minimum specifications specified by the STP centralised hub and should abide by the service standards as specified by SEBI and/or the STP centralised hub in consultation with the STP service providers. The STP Service Provider is required to obtain a digital signature certificate from a Certifying Authority and submit a copy of the Certificate to the STP centralised hub and also ensures that the digital signature certificate is valid and in force. The STP service providers have to deliver a consistent and secure communication platform and establish continuous connectivity with the STP centralised hub to the best of its ability. They also have to ensure that the message sent to the STP centralised hub is in the prescribed messaging standard. The STP service provider shall verify-the digital signature certificate furnished by the STP centralised hub before connecting itself to the STP centralised hub and should confirm the authenticity, integrity and nonrepudiability of all messages submitted to the STP centralised hub. The service provider has to keep complete track of the flow of messages for record and audit and may charge reasonable fees from the STP users. He can exchange messages between other STP service providers only through the STP centralised hub. It has also been provided that in force majuere measures or any other circumstances due to which the connectivity of the STP centralised hub is not available, the STP service provider after mutual discussion may exchange messages directly among themselves for such period. The service providers is required to digitally sign all messages sent from it to the STP centralised hub and enter into an agreement with all its STP users specifying the fees payable by the STP user for the services. They have to maintain a directory of the STP users connected to it and also a complete record of the flow of messages handled. The records of the STP service provider should be open for inspection by SEBI or any other person duly authorised by SEBI for this purpose and should verify the digital signature on the message of the STP user connected to the STP Service Provider and also required to ensures that the message from the STP user is in the specified messaging format. They should promptly deliver messages to and from the STP user whereas in respect of inter STP service provider messages, the STP service provider shall perform all actions to the best of its ability in the same manner, diligence, speed and with all checks and balances as if the message is to be delivered/received by the same service provider. Nothing in these guidelines shall exempt the STP service provider from discharging any obligations placed on it by any law, regulations and guidelines.

Conditions of Approval

The approval by SEBI should be for an initial period of five years for STP centralised hub and for a period of three years for STP service providers and must be renewed periodically. The STP centralised hub and STP service provider must ensure continuous validity of approval by SEBI in order to function as a STP service provider. SEBI has the right to suspend/cancel the approval of the STP centralised hub and/or STP service provider in case of violation of the terms of the guidelines.

Code of Conduct

Every STP service provider is required to abide by the following Code of Conduct as prescribed—

a. The STP service provider should render at all times high standards of service, exercise due diligence, ensure proper care and exercise independent professional judgment.
b. The STP service provider should disclose to the clients its possible sources or potential areas of conflict of duties and interest and provide unbiased services.
c. The STP service provider herein agrees and undertakes to perform its duties as a STP service provider with the highest standards of integrity and fairness in all its dealings.
d. The STP service provider should abide by the obligation as specified under these Guidelines and the terms of the agreement entered into by the STP

service provider with the STP users/STP centralised hub.

e. The STP service provider is required to maintain true and correct record of the messages processed by it under the scheme and in particular the records in respect of:
    i. the STP users
    ii. the messages exchanged within the same STP service provider.
    iii. the messages exchanged with other STP service provider through the STP centralised hub
f. The STP service provider should ensure that the message is not misused or tampered with while in its possession.
g. The STP service provider should maintain confidentiality information about its users and shall not divulge the same to other clients, the press or any other interested party except in accordance with law or as per the directions of any court of law.
h. The STP service provider should also abide by all the provision of the Act, Rules, Regulations, Guidelines, Resolutions) Notifications, Directions, Circular, etc. as may be issued by the Government of India/Telecom Regulatory Authority of India/Department of Telecommunications and Securities and Exchange Board of India from time to time as may be, applicable to the STP service provider.

Service Changes and Discontinuation

STP centralised hub, if directed by regulatory authorities, suspend the STP Service Provider's access to the STP Centralized Hub at any time without notice. The STP Service Provider agrees that STP centralised hub will not be liable to any third party for any modification or discontinuance of the STP Centralized Hub. If STP centralised hub receives prior notice of such direction it shall be communicated to the service provider immediately.

In order to maintain the security and integrity of the service STP centralised hub may also suspend the STP Service Provider's access to the STP Centralized Hub. The STP Service Provider agrees that STP centralised hub will not be liable to or any third party for any modification or discontinuance of the STP Centralized Hub. The Parties shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the arrangement. In the case of any issues arising out of the security and integrity of the messages being exchanged through the hub, the same shall be resolved by mutual discussion. In the event the parties are not able to settle the same within the time frame agreed between the parties either party may, by written notice of 30 days sent to the other party, temporarily suspend the arrangements, in whole or in part, till the parties find a technical solution to the security and technical issues. The notice of termination shall specify the termination is at whose instance, the extent to which performance of the agreement is suspended, and the date upon which such suspension becomes effective.

Force Majeure

If the performance of any obligations by any party as specified in this agreement is prevented, restricted, delayed or interfered by reason of force majeure then notwithstanding anything hereinbefore contained, the party affected shall be excused from its performance to the extent such performance relates to such prevention, restriction, delay or interference and provided the party so affected uses its best efforts to remove such cause of non-performance and when removed the party shall continue performance with utmost urgency. For the purpose of this clause "Force Majeure" means & includes fire, explosion, cyclone, floods, war, revolution, blockage or embargo, any law, order, demands or requirements of any Government or statutory authority, strikes, which are not instigated for the purpose of avoiding obligations herein or any other circumstances beyond the control of the party affected.

Waiver of Rights

No forbearance, delay or indulgence by any party in enforcing any of the provisions of this agreement shall prejudice or restrict the rights of that party nor shall any waiver of its rights operate as a waiver of any subsequent breach and no rights, powers, remedies herein conferred upon or reserved for the parties is exclusive of any other right, power or remedy available to that party and each right, power or remedy shall be cumulative.

Arbitration And Jurisdiction

In the case of any dispute or any difference between the parties arising out of or in relation to this agreement including dispute or difference as to the validity of this agreement or interpretation of any of the provisions of this agreement or losses or damages arising under clause C-8 and the relevant clause under STP Centralizedized hub of this agreement, the same shall be resolved by mutual discussion. If the parties fail to settle the dispute or difference mutually, then the same shall be resolved in accordance with and subject to the provisions of the Arbitration and Conciliation Act, 1996 or any modifications or amendments thereto, or any enactment for the time being in force subject to the stipulation that only courts at Mumbai shall have exclusive jurisdiction in all such matters. The provisions of this clause shall survive the termination of this agreement.

Confidentiality

The Parties hereto shall at all times maintain and Keep secret and confidential any knowhow, Information and data which It has or may acquire from time to time relating to the business, activities or operations of the other Party and shall not disclose or divulge the same or any part thereof to any third party. The terms of this clause shall survive termination of the Agreement. The obligations shall not apply with respect to Information which:

— Is or becomes publicly available other than through a breach of this Agreement or is unlawfully appropriated;

— Is already in the possession of the other party without any breach of this Agreement;

— Is obtained by the other party from a third party wltho ut any breach of this Agreement.

— Is required to be produced before a judicial authority and only where the other party is compelled to do so by such an authority, provided that the said authority (or Individual representing such authority) has the authority, under the laws in force, to compel such disclosure.

Notwithstanding the foregoing, before making any use or disclosure on any of the foregoing exceptions, the Party disclosing such Information shall intimate the Other Party as soon as practicable the applicable exceptions (s) and circumstances giving rise thereto.

V. INDEX, FUTURES, OPTIONS AND DERIVATIVES

Derivatives are contracts which derive values from the value of one or more of other assets, called underlying assets. Some of the most commonly traded derivatives are futures, forward, options and swaps. Derivatives trading in Chicago Board Options Exchange has been adopted for the institutional framework. This is also referred as option trading.

Futures

This is a contract to buy or sell an underlying financial instrument at a specified future date at an agreed price (strike price) quoted when the contract is entered. The strike price or premium is influenced by the level of interest rate, market liquidity, dividend and expected variance in the price in future and time period of option. The terms of the contract allow the holder and not the maker of the option to cancel the option. The idea behind the futures trading is to transfer future changes in security prices from one person in the contract to the other. It offers the means to manage the risk in participating financial market. Futures do not create values, they only transfer values. It is a means for reducing risk or assuming risk with a view to profit. Every futures contract has two sides—

a. A willing buyer
b. A willing seller

If one side of contract makes a profit and the other side will make a loss. The futures market is thus a zero sum game, since all futures market participants taken together can neither lose nor gain. A margin has to be deposited at the clearing house for futures. The size of the market is large and the investing public impersonal due to the presence of a central depository.

The right to buy is referred to as a call option whereas the right to sell is known as a put option. Options are generally described by the nature of underlying commodities. An option on common stock is said to be stock option; an option on bond is called a bond option; an option on foreign currency is referred as a currency option; an option on future contract is known as a future option and so on. The specified price at which the underlying commodity may be bought (in the case of a call) or sold (in the case of put) is called exercise price or the striking price of the option.

In simple terms, futures markets are those where hedgers and speculators come together to discover the future prices of a security, to protect against price risk and to provide a pool of risk capital. These markets offer a large measure of flexibility in managing financial risk. Hedgers and speculators are given room to manoeuvre to offset buying options in one contract with selling options in another. Swap means exchange. If a trader has entered into a contract for purchasing from another trader, he may try to set it off or swap it for another contract which he may enter into for selling to that trader.

The Securities Laws (Amendment) Ordinance, 1995, promulgated by the President on January 25, 1995 removed the ban on option trading in securities and paved the way for eventual reintroduction of option trading on stock exchanges.

Option trading in security started in England about 100 years prior to the founding of the London Stock Exchange. In India, it existed almost 100 years till it was banned in the year late 1950s. Starting from the 1920s, until 1973, the securities option business was concentrated in the hands of a small number of firms, who eventually organise the put and call, brokers and dealers association. Their function was to simply facilitate option buyers by locating the opposite party to a proposed transaction or by taking the other side of the transaction themselves. However, the formation of the Chicago Board Options Exchange (CBOE) in 1973 revolutionised options trading.

Functioning of Option Trading

It is relevant to know that Chicago Board Options Exchange (CBOE) introduced an institutional framework for optional trading.

The CBOE, in fact, borrowed the system from the commodity futures business prevalent in the Chicago Board of Trade. A certain homogeneity was introduced in securities options trading where all contracts of a specific kind had identical expiry dates and striking prices. The concept was a success and trading volumes picked up sharply. There was 5.3 crore contracts recorded in 1980. The trading concept was picked up immediately by other stock exchanges in America and West. The system was progressively improved with the passage of time. For instance, on the CBOE, it is common to find call options on the IBM share.

Essentially the system works like this—there is ‘striking price’ which represents the price the holder of the buy option must pay to the seller in order to claim the shares. The option has to be exercised before the expiration of the specified period. For instance, an IBM July call would allow an investor to buy 100 shares of the company at US$60 per share any time before the expiration of the period of 90 days. If IBM rules at US$70 within the period, the option’s intrinsic value will be US$1000 (market price-strike price). Conversely, if the IBM share fell below US$60, the investor could opt out of the deal on paying the option charges.

Important terminology

1. Call option: Right to buy at fixed price.
2. Put option: Right to sell at fixed price.
3. Striking or exercise price: Fixed price at which the option may be exercised and the underlying asset bought or sold.
4. Premium: Price or cost of option.
5. Maturity: Day on which option is exercised.
6. Exercise: To put into effect, the right to buy or sell.
7. Write: To sell an option.
8. Out of the money: Option exercised price is above (in case of call) or below (in case of put) prevailing price of underlying asset.
9. American style: Exercisable any time before maturity.
10. European style: Exercisable on maturity.

Investment Strategies

Straddle: Combination of put and identical call. Holder pays premium equal to premium on put and call. He is insured against any movement on either side and has opportunity to gain from upmove and downmove. To break even, stock must move either way by at least the amount of premium paid for straddle.

Strip: Buyer of strip is confident that scrip price will change. He also feels it is more likely to go down, and enters into two puts and one call. Here, the premium is equal to the sum of the premia on the two puts and one call. The chances of loss increase. But, so also possibilities of favourable outcomes. As buyer enters into two puts, a smaller downslide in prices is able to recover premium and chances of larger profit rise.

Strap: The strap buyer feels the market may go either way, but is more likely to go up. He, therefore, enters into two calls and a put. Here again, the premium paid is the sum of the premia paid on the two calls and one put. The buyer recovers cost if there is a slight upswing in the market and chances of profit rise.

Practical Aspects

Futures trading

A future contract is an arrangement by which a buyer/seller agrees to take/give delivery of the securities on a specified future date at a fixed price and make payment on the delivery date. Such contracts are zero-sum games where the gain equals loss. The clearing house is the counterparty in such contracts. A buyer is called the 'long' and the seller 'short'.

A margin has to be deposited at the clearing house for futures. The size of the market is large and investing public impersonal due to presence of a central depository.

Future markets provide precise price information and make it possible to transfer risk from those who wanted to shed it (hedgers) to those who are willing to accept it (speculators). These important benefits are:

— price discovery and risk transfer

— extend to every sector in which time and place considerations create economic risk.

Simply stated, future markets are those where hedgers and speculators come together to discover the future price of a security, to protect against price risk and to provide a large pool of risk capital. Future markets also afford a large measure of flexibility in managing financial risk. Hedgers and speculators are given room to manoeuvre, to offset buying options in one contract with selling options in another.

Options Trading

An option is a contract between two parties in which the maker of the option (option writer) agrees to buy or sell a specified number of shares at later date for an agreed price (strike price) to the holder of the option (option buyer) on a due date (answer date) and time, when and if the later so desires, in consideration of a sum of money (premium). The strike price or premium is the price which is required to be paid for purchase of right to buy or sell. The premium is influenced by level of interest rate, market liquidity, dividend and expected variance in price in future and time period of option. The terms of the contract allow the holder, not the maker, to cancel the option.

The option buyer is required to notify the option maker on the ‘answer day’ if he intends to exercise his rights, and in case the former does not do so, the option contract lapses. The premium (option price) is determined on the basis of market volatility, interest rates, the spot price, the duration of the option, the agreed price and investors’ sentiment.

Types of Option

Options are of two types. In call option, an investor has a right to buy. An investor takes a call option if he expects that the market price will be higher than the strike price to earn the difference as his profit. In put option, an investor has a right to sell. An investor takes a put option if he expects that the market price will be lower than the strike price. The lower the market price than the strike price, the higher will be the profit for investor.

An investor can simultaneously buy call as well as put option if he is uncertain about the market conditions.

Exercising Options

There are two ways of exercising options—(i) On the expiry date (European options system) and (ii) anytime before the expiry of specified time (American option system). The rate of premium is higher in case of American option system as it covers risk all the times during the option period.

Option can be allowed either on the basis of the price of shares or indices of shares. In case of option on the price of shares, the delivery has to be made on the specified date and the difference in share price is paid to the investor. But, in case of share indices, the difference between the share index at the time of taking the option and the date of exercising the option is settled without delivery of shares.

The main purpose of an option market is to manage risk and not to create it. The risks are apparent in every trade and it is nothing more than common prudence to guard against risks. Put and call options redistribute the risks inherent in investment. An investor can use options in high or low risk ways but options themselves are not inherently risks.

Although options do not increase or decrease the total level of risk in the market, both parties to a particular option transaction can reduce their portfolio risk simultaneously through a combination of stock option and short-term debt position. The net effect of option transactions is a re- allocation of risk and reward between buyer and seller.

To understand options trading in proper perspective, the following terminology needs brief explanation:

A standard option contract allows the buyer to buy fixed number of shares at a specific price during a specific period of time, regardless of the market price of that stock.

Options are of two types—a call option and put option. A call option contract gives the buyer a right to buy a share at a previously agreed price on the answer date. A put option contract gives the buyer a right to sell a share at the agreed price on the answer date. If on the fixed date, the market price is higher than the option price, a call option holder can exercise his option to buy the shares at a lower price (option price). In case the market is lower than the option price, he need not exercise his option. Similarly, in case of put option, if the market price is lower than the option price, the option holder will exercise his option to sell the shares at the higher option price, otherwise he will not exercise his put option.

A double option called ‘straddles’ is a combination of one put and one call option with a common striking price and common expiry date.

The expiration date is the date on which the option contract expires; i.e., the date on which an option can be exercised by the buyer.

The ‘striking’ price is the price at which the buyer of a call can purchase the stock during the period of option, and the price at which the buyer of a put can sell the stock during the life of the option. The terms ‘buyer’ and ‘holder’ are synonymous with expression ‘seller’ and ‘writer’. In the latter case, however, a seller of an existing option is not necessarily the writer. He might have purchased the option from a writer.

The premium is the price the buyer pays to the writer for an option contract at the time of buying the option. The term ‘premium’ is often synonymous with the word ‘price’.

How the system works?

Futures and options allow investors to buy and sell forward or at a future date. However, in doing so, they have to pay upfront to the option writer. It is the premium, which is a factor of the interest rate, depending on the volatility of a particular scrip. An investor may not be willing to buy immediately in the uncertain market conditions, but can buy an option to pick up the shares at a future date. As for every buyer of shares, there is a corresponding seller, it ensures that there is always a fairly good amount of floating stock in the market.

For example, a person who has 1000 shares of a company currently priced at Rs. 90 in the market has to liquidate his holdings after two years, when he requires money to finance child’s education. In two years, the price of the shares slumps to Rs. 60 and the investor stands to lose Rs. 30,000 on his holding which he can ill-afford. He can avoid the risk of loss, by buying a put Option (right without obligation to sell) to sell 100 shares at Rs. 90 two years later. For this, he will have to pay a premium of Rs. 2000. Suppose, after two years the market price of share is about Rs. 100. In this case, the holder need not exercise the option of selling his 1000 shares at Rs. 90 each because he is able to sell the shares at Rs. 100 each.

Advantages of options

The main advantages of options are as follows—

Options are openly traded and ensure transparency in transactions.

Options limit risk exposure for the stipulated time and enable investors to manage their risk under volatile conditions. There is no default because clearing house is counter-party to all transactions and guarantor for payment and deliveries. There is opportunity to maintain position without margin calls.

There is realistic forecast of prices for securities by studying the published prices of future contract.

There will be tendency to estimate in advance total risk in future transactions.

There will be integration of the Indian capital market with the developed capital markets.

An option market is less vulnerable to the manipulations of operators. At both the highest and lowest prices, there are both buyers and sellers to keep the speculation under control. Secondly, if a particular industry is going through a rough weather, an investor can always hedge by buying a put options or selling the shares without worrying about payment of backwardation charge (Undha badla). Thirdly, an investor can get an idea of the future price trend in a right/bonus scrip. Fourthly, even during speculations, it is possible to manage the risk within limits. Finally, the system will be more transparent as all option trades will be reported and the information disseminated to investors.

Pre-requisites for Option Trading

The most important pre-requisite of starting option trading is proper infrastructure and writers of options. Institutional infrastructure has to be developed. This will require writers of options, who are speculators willing to take risk for high rewards. They generally have sufficiently large resource base and are able to meet commitments in case the buyer of the option exercises his right. The successful functioning of option trading will require:

1. Standardisation of the terms of contract. This will decrease cost of transactions and facilitate development of the secondary market in options.
2. Careful selection of underlying securities. The securities selected must be registered and listed on major stock exchanges and widely held.
3. Appointment of market-makers. A number of market-makers, with sound financial base, are required to provide trading in options on a regular basis.
4. Setting up of options clearing house. It will require an efficient clearing house to collect fees from every buyer and create a guarantee fund for insuring future performance of the contract. In case any party to a future contracts commits default, the clearing house will have to pay cost to carry out the contract from the fund.
5. Creation of a central market. The creation of a central market will require regulation, surveillance and price dissemination.

Position in Advanced Countries

Futures and options are traded in the US, UK, France, Germany and other European countries since 18th Century. With a constructive regulatory environment and close scrutiny of derivatives market, the law makers in the advanced countries have been able to prevent the speculative abuse of the future and option trading without destroying the utility of the instruments.

In USA and UK, the stock exchanges have extended the concept of future and option dealing by introducing, in addition to the traditional stock market, a market in ‘traded option’. The London market in traded option was opened in 1978 by 18 British companies.

Vital Issues

How the derivatives will check risk? The derivatives are used as tools of investment risk management. The futures and options trading will not only provide a way to hedge against the market risk of a large stock portfolio, but it will also enable investors to hedge their position in the market.

How to ensure performance of contract? One of the salient features of option is that losses to the buyer are limited to the amount paid for purchase of option, but there is scope of earning unlimited profits. The amount of premium is relatively small and possibility of making profit is higher. It is the buyer who has the option and flexibility to take the risk to the extent he likes and pass on the rest to the option writer. It is the option writer who is fully exposed to the risk of price fluctuations and has to exercise due care and diligence. As such, the system can fail like option trading if adequate precaution is not taken in advance to ensure the risk of the option writer. The stock exchange authorities have to ensure the performance of the contract in the event of the failure of the option writer. In USA, stock exchanges provide the guarantee for performance of the contract in case the option writer fails to meet his liability. As such, stock exchange authorities have to obtain insurance policy to ward off the risk of failure by option writers. The premium amount can be collected by levying fees on the turnover of option transactions. The stock exchange members should be advised to work within their limits and in case of frequent default, the membership of the broker can be cancelled.

Is the futures and the options trading flawless ? In fact, the degree of speculation can be much higher in futures and options market because players know that their losses can be quantified and limited to the amount of premium paid.

There are legislative measures in the USA and European countries to check abuses of option trading without undermining its usefulness. In India, it is quite possible that like in the present system, the sentiment can sway the market and the volumes could go up to unsustainable levels. As such, checks and balances have to be provided to bring the market back to normal.

Care will have to be taken to ensure that under the option trading system, transaction would be dealt at the fixed price for specific delivery and no carry forward charges would be fixed. Consequently, the buyers or sellers would only get the price difference as against the present system of price-differential and plus/ minus carry forward charges as fixed by the market at turn of settlement.

LESSON ROUND-UP

- Securities traded in the stock exchanges can be classified as Listed cleared Securities and Permitted Securities.
- Listing of securities falls under 5 groups viz. Initial Listing; Listing for Public Issue; Listing for Rights Issue; Listing of Bonus Shares; Listing for merger or amalgamation:
- Settlement is the process of netting of transactions and actual delivery/receipt of securities and transfer deeds against receipts/payment of agreed amount.
- National Securities Clearing Corporation Limited incorporated as a wholly owned subsidiary of the National Stock Exchange of India Limited carries out clearing and settlement of the trades executed in the capital market segment of National Stock Exchange.
- The member-brokers at BSE &NSE now enter orders for purchase or sell of securities from Trader Work Stations (TWSs) through BOLT and NEAT system.
- Straight Through Processing (STP) is a mechanism that automates the

end to end processing of transactions of financial instruments.

- The process of denutualisation is to convert the traditional ‘not for profit’ stock exchanges into a “for profit” company and thisprocess is to transform the legal structure from a mutual form to a business corporation form.

FOOTNOTES

* Information compiled from www.bseindia.com and various publications of the Stock Exchange, Mumbai.

*a Information compiled from www.nseindia.com and various publications of the National Stock Exchange of India Ltd.