



## **Capital Market (Dealers) Module (CMDM)**



## NCFM Module Examination Details

Sr. NO	Module Name	Test Duration (in minutes)	No. Of Questions	Maximum Marks	Negative Marking	Pass marks	Allowable access to Candidate at Test Centre			
							Open Office Spread Sheet	Normal Distribution Table	Regular /Scientific Calculator	Financial Calculator
FOUNDATION										
1	Financial Markets: A Beginners' Module	120	60	100	NO	50	NO	NO	YES	NO
2	Mutual Funds : A Beginners' Module	120	60	100	NO	50	NO	NO	YES	NO
3	Currency Derivatives: A Beginner's Module	120	60	100	NO	50	NO	NO	YES	NO
4	Equity Derivatives: A Beginner's Module	120	60	100	NO	50	NO	NO	YES	NO
5	Interest Rate Derivatives: A Beginner's Module	120	60	100	NO	50	NO	NO	YES	NO
6	Commercial Banking in India: A Beginner's Module	120	60	100	NO	50	NO	NO	YES	NO
7	FIMMDA-NSE Debt Market (Basic) Module	120	60	100	YES	60	YES	NO	YES	NO
8	Securities Market (Basic) Module	120	60	100	YES	60	NO	NO	YES	NO
9	Clearing Settlement and Risk Management Module	60	75	100	NO	60	YES	NO	YES	NO
10	Banking Fundamental - International	90	48	48	YES	29	YES	NO	YES	NO
11	Capital Markets Fundamental - International	90	40	50	YES	30	YES	NO	YES	NO
INTERMEDIATE										
1	Capital Market (Dealers) Module	105	60	100	YES	50	NO	NO	YES	NO
2	Derivatives Market (Dealers) Module	120	60	100	YES	60	NO	NO	YES	NO
3	Investment Analysis and Portfolio Management	120	60	100	YES	60	NO	NO	YES	NO
4	Fundamental Analysis Module	120	60	100	YES	60	NO	NO	YES	NO
5	Operation Risk Management Module	120	75	100	YES	60	NO	NO	YES	NO
6	Options Trading Strategies Module	120	60	100	YES	60	NO	NO	YES	NO
7	Banking Sector Module	120	60	100	YES	60	NO	NO	YES	NO
8	Treasury Management Module	120	60	100	YES	60	YES	NO	YES	NO
9	Insurance Module	120	60	100	YES	60	NO	NO	YES	NO
10	Macroeconomics for Financial Markets Module	120	60	100	YES	60	NO	NO	YES	NO
11	NSDL-Depository Operations Module #	75	60	100	YES	60	NO	NO	YES	NO
12	Commodities Market Module	120	60	100	YES	50	NO	NO	YES	NO
13	Surveillance in Stock Exchanges Module	120	50	100	YES	60	NO	NO	YES	NO
14	Technical Analysis Module	120	60	100	YES	60	NO	NO	YES	NO
15	Mergers and Acquisitions Module	120	60	100	YES	60	NO	NO	YES	NO
16	Back Office Operations Module	120	60	100	YES	60	NO	NO	YES	NO
17	Wealth Management Module	120	60	100	YES	60	NO	NO	YES	NO
18	Project Finance Module	120	60	100	YES	60	NO	NO	YES	NO
19	Venture Capital and Private Equity Module	120	70	100	YES	60	NO	NO	YES	NO
20	Financial Services Foundation Module ###	120	45	100	YES	50	NO	NO	YES	NO
21	NSE Certified Quality Analyst \$	120	60	100	YES	50	NO	NO	YES	NO
22	NSE Certified Capital Market Professional (NCCMP)	120	60	100	NO	50	NO	NO	YES	NO
23	US Securities Operation Module	90	41	50	YES	30	YES	NO	YES	NO
ADVANCED										
1	Algorithmic Trading Module	120	100	100	YES	60	YES	NO	YES	NO
2	Financial Markets (Advanced) Module	120	60	100	YES	60	YES	NO	YES	NO
3	Securities Markets (Advanced) Module	120	60	100	YES	60	YES	NO	YES	NO
4	Derivatives (Advanced) Module	120	55	100	YES	60	YES	YES	YES	NO
5	Mutual Funds (Advanced) Module	120	60	100	YES	60	YES	NO	YES	NO
6	Options Trading (Advanced) Module	120	35	100	YES	60	YES	YES	YES	YES
7	Retirement Analysis and Investment Planning	120	77	150	NO	50	YES	NO	YES	YES
8	Retirement Planning and Employee Benefits **	120	77	150	NO	50	YES	NO	YES	YES
9	Tax Planning and Estate Planning **	120	77	150	NO	50	YES	NO	YES	YES
10	Investment Planning **	120	77	150	NO	50	YES	NO	YES	YES
11	Examination 5/Advanced Financial Planning **	240	30	100	NO	50	YES	NO	YES	YES
12	Equity Research Module ##	120	49	60	YES	60	YES	NO	YES	NO
13	Financial Valuation and Modeling	120	100	100	YES	60	YES	NO	YES	YES
14	Mutual Fund and Fixed Income Securities Module	120	100	60	YES	60	YES	NO	YES	YES
15	Issue Management Module ##	120	55	70	YES	60	YES	NO	YES	NO
16	Market Risk Module ##	120	40	65	YES	60	YES	NO	YES	NO
17	Financial Modeling Module ###	120	30	100	YES	50	YES	NO	YES	NO
18	Business Analytics Module ###	120	66	100	NO	50	YES	NO	YES	NO

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

### Module of IMS Proschool

## Modules of Finitatives Learning India Pvt. Ltd. (FLIP)

\*\* Financial Planning Standards Board India (Certified Financial Planner Certification) FPSB India Exam

\$ SSA Business School

The curriculum for each of the modules (except Modules of Financial Planning Standards Board India, Finitatives Learning India Pvt. Ltd. and IMS Proschool) is available on our website: [www.nseindia.com](http://www.nseindia.com)

## **Preface**

### **About NSE Academy**

NSE Academy is a subsidiary of National Stock Exchange of India. NSE Academy straddles the entire spectrum of financial courses for students of standard VIII and right up to MBA professionals. NSE Academy has tied up with premium educational institutes in order to develop pool of human resources having right skills and expertise which are apt for the financial market. Guided by our mission of spreading financial literacy for all, NSE Academy has constantly innovated its education template, this has resulted in improving the financial well-being of people at large in society. Our education courses have so far facilitated more than 41.8 lakh individuals become financially smarter through various initiatives.

### **NSE Academy's Certification in Financial Markets (NCFM)**

NCFM is an online certification program aimed at upgrading skills and building competency. The program has a widespread reach with testing centers present at more than 154+ locations across the country.

The NCFM offers certifications ranging from the Basic to Advanced.

One can register for the NCFM through:

- Online mode by creating an online login id through the link 'Education' > 'Certifications' > 'Online Register / Enroll' available on the website [www.nseindia.com](http://www.nseindia.com)
- Offline mode by filling up registration form available on the website [www.nseindia.com](http://www.nseindia.com) > 'Education' > 'Certifications' > 'Register for Certification'

Once registered, a candidate is allotted a unique NCFM registration number along with an online login id and can avail of facilities like SMS alerts, online payment, checking of test schedules, online enrolment, profile update etc. through their login id.



# CONTENTS

<b>CHAPTER 1: AN OVERVIEW OF THE INDIAN SECURITIES MARKET .....</b>	<b>10</b>
1.1 Market Segments .....	10
1.1.1 Primary Market .....	10
1.1.2 Secondary Market .....	10
1.2 Key Indicators of Securities Market .....	10
1.2.1 Index .....	10
1.2.2 Market Capitalisation .....	10
1.2.3 Market Capitalisation Ratio .....	11
1.2.4 Turnover .....	11
1.2.5 Turnover Ratio .....	11
1.3 Products and Participants .....	11
1.3.1 Products .....	11
1.3.2 Participants .....	11
1.4 Market Segments and their Products .....	12
1.5 Reforms in Indian Securities Markets .....	13
<b>CHAPTER 2: TRADING MEMBERSHIP .....</b>	<b>17</b>
2.1 Stock Brokers .....	17
2.2 NSE Membership .....	17
2.2.1 New Membership .....	18
2.2.2 Eligibility Criteria for Membership at NSE .....	19
2.2.3 Admission Procedure for New Membership .....	26
2.3 Surrender of Trading membership .....	27
2.4 Suspension & Expulsion of Membership .....	29
2.4.1 Basis of Suspension of Membership .....	29
2.4.2 Suspension of Business .....	31
2.4.3 Removal of Suspension .....	32
2.4.4 Consequences of Suspension .....	32
2.4.5 Consequences of Expulsion .....	32
2.5 Declaration of Defaulter .....	33
2.6 Authorised Persons .....	34
2.7 Sub-Brokers .....	34
2.7.1 Eligibility .....	35
2.7.2 Registration .....	35
2.7.3 Cancellation of Registration .....	36

2.8	Broker-Clients Relations .....	36
2.8.1	Client Registration Documents .....	36
2.8.2	Unique Client Code (UCC) .....	37
2.8.3	Margins from the Clients .....	37
2.8.4	Execution of Orders .....	37
2.8.5	Contract Note .....	38
2.8.6	Payments/Delivery of Securities to the Clients.....	38
2.8.7	Brokerage .....	38
2.8.8	Segregation of Bank Accounts.....	39
2.8.9	Segregation of Demat (Beneficiary) Accounts.....	39
2.9	Sub-Broker-Clients Relations .....	39
2.9.1	Relationship with clients.....	39
2.9.2	Contract notes .....	40
2.9.3	Securities/ Funds .....	40
2.10	Investor Service Cell and Arbitration .....	40
2.11	Code of Advertisement.....	40
	<b>CHAPTER 3: TRADING</b> .....	43
3.1	Introduction .....	43
3.2	NEAT System.....	45
3.3	Market Types .....	45
3.4	Trading System Users Hierarchy .....	46
3.5	Local Database .....	47
3.6	Market Phases .....	47
3.7	Logging On .....	49
3.8	Log Off/Exit from the Application.....	52
3.9	NEAT Screen.....	53
3.10	Invoking an Inquiry Screen.....	54
3.10.1	Market Watch .....	54
3.10.2	Security Descriptor.....	56
3.10.3	Market by Price.....	57
3.10.4	Previous Trades.....	58
3.10.5	Outstanding Orders .....	59
3.10.6	Activity Log .....	60
3.10.7	Order Status .....	61
3.10.8	Snap Quote .....	62
3.10.9	Market Movement .....	62

3.10.10	Market Inquiry .....	63
3.10.11	Auction Inquiry .....	64
3.10.12	Security/Portfolio List .....	65
3.10.13	Multiple Index Broadcast and Graph.....	66
3.10.14	Online Backup .....	67
3.10.15	Basket Trading .....	68
3.10.16	Buy Back Trades .....	70
3.10.17	Supplementary Functions.....	71
3.11	Order Management.....	87
3.11.1	Entering Orders .....	87
3.11.2	Order Modification.....	93
3.11.3	Order Cancellation.....	93
3.11.4	Order Matching .....	94
3.12	Trade Management.....	97
3.12.1	Trade Cancellation.....	98
3.13	Auction .....	98
3.13.1	Entering Auction Orders .....	99
3.13.2	Auction Order Modification.....	100
3.13.3	Auction Order Cancellation .....	100
3.13.4	Auction Order Matching.....	100
3.14	Limited Physical Market.....	101
3.14.1	Salient Features of Limited Physical Market.....	101
3.15	Block Trading Session .....	102
3.16	Retail Debt Market (RDM).....	102
3.16.1	Members eligible for trading in RDM segment.....	102
3.16.2	Trading Parameters .....	102
3.16.3	Market Timings and Market Holidays.....	103
3.16.4	Trading System.....	103
3.16.5	Trading Cycle.....	105
3.17	Trading information downloaded to Members .....	105
3.18	Internet Broking .....	107
3.19	Co-location.....	107
3.20	Wireless Application Protocol (WAP).....	107
	<b>CHAPTER 4: CLEARING, SETTLEMENT AND RISK MANAGEMENT .....</b>	<b>108</b>
4.1	Introduction .....	108
4.2	Key terminologies used in Clearing and Settlement Process.....	108

4.3	Transaction Cycle .....	109
4.4	Settlement Agencies.....	109
4.5	Clearing and Settlement Process .....	111
4.5.1	Clearing Process .....	111
4.5.2	Settlement Process.....	112
4.5.3	Settlement Cycle.....	114
4.6	Securities and Funds Settlement .....	116
4.6.1	Securities Settlement .....	117
4.6.2	Funds Settlement.....	119
4.7	Shortages Handling .....	121
4.7.1	Valuation Prices .....	122
4.7.2	Close-out Procedures.....	122
4.8	Risks in Settlement .....	125
4.9	Risk Management.....	126
4.9.1	Capital Adequacy Requirements .....	126
4.9.2	Margins .....	127
4.9.3	On-Line Exposure Monitoring .....	136
4.9.4	Off-line Monitoring .....	137
4.9.5	Index-based Market-wide Circuit Breakers/ Price Bands for Securities ...	137
4.9.6	Settlement Guarantee Mechanism .....	137
4.10	International Securities Identification Number.....	138
4.11	Data and Report Downloads.....	139
4.11.1	Obligation Reports.....	139
4.11.2	Custodial Trade Reports .....	140
4.11.3	Deliveries Reports .....	140
4.11.4	Funds Reports .....	141
4.11.5	Auction Reports .....	141
4.11.6	Margin Reports .....	142
4.11.7	Miscellaneous Reports.....	142
<b>CHAPTER 5: LEGAL FRAMEWORK .....</b>		<b>143</b>
5.1	SEBI (Intermediaries) Regulations, 2008.....	143
5.2	SEBI (Prohibition of Insider Trading) Regulations, 1992 .....	145
5.2.1	Prohibition on Dealing, Communicating or Counseling (Chapter II)	147
5.2.2	Investigation (Chapter III) .....	147
5.2.3	Disclosures and Internal Procedure for Prevention of Insider Trading (Chapter IV).....	148



5.3	SEBI (Prohibition of fraudulent and Unfair Trade Practices relating to securities market) Regulations, 2003 .....	149
5.3.1	Prohibition of Certain Dealings in Securities .....	150
5.3.2	Prohibition of Manipulative, Fraudulent and Unfair Trade Practices.....	150
5.4	The Depositories Act, 1996.....	152
5.5	Indian Contract Act, 1872 .....	154
5.6	Income Tax Act, 1961 .....	156
	<b>CHAPTER 6: FUNDAMENTAL VALUATION CONCEPTS .....</b>	<b>160</b>
6.1	Time Value of Money .....	160
6.1.1	Future Value of a Single Cash Flow .....	160
6.1.2	Future Value of an Annuity .....	161
6.1.3	Present Value of a Single Cash Flow .....	161
6.1.4.	Present Value of an Annuity .....	161
6.2	Understanding Financial Statement.....	162
6.2.1	Comparative Financial Statements .....	162
6.2.2	Common Size Statements .....	162
6.2.3	Ratio Analysis .....	163
	Model Test Paper .....	168

## **List of Abbreviations**

ADs	Authorised Dealers
AT	Algorithmic Trading
AI	Auction Inquiry
AL	Activity Log
ASBA	Application Supported by Blocked Amount
ADRs	American Depository Receipts
AL	Activity Log
AON	All or None
BOVL	Branch Order Value Limit
BSE	Bombay Stock Exchange
BM	Branch Manager
CADT	Client Allocation Details
CDS	Currency Derivatives Segment
CD	Cum-Dividend
CB	Cum-Bonus
CLI	Client
CI	Cum-Interest
CM	Clearing Member
CR	Cum-Rights
CSD	Collateral Security Deposit
CDSL	Central Depositories Services Ltd.
CM	Capital Market
Co.	Company
CTCL	Computer to Computer Link
DEA	Department of Economic Affairs
DFDS	Demat Final Delivery Statement
DFRS	Demat Final Receipt Statement
DMA	Direct Market Access
DP	Depository Participant
DPG	Dominant Promoter Group
DQ	Disclosed Quantity
DvP	Delivery versus Payment
ECBs	External Commercial Borrowings
EPI	Early Pay-In
FCCBs	Foreign Currency Convertible Bonds

FI	Financial Institution
FII	Foreign Institutional Investors
FIPB	Foreign Investment Promotion Board
F&O	Futures and Options
FTP	File Transfer Protocol
FPO	Follow-on Public Offer
GDRs	Global Depository Receipts
HUF	Hindu Undivided Family
ICDR	Issue of Capital and Disclosure Requirements
IEPF	Investor Education and Protection Fund
IFSD	Initial Free Security Deposit
INST	Institutional
IOC	Immediate or Cancel
IPO	Initial Public Offer
IPF	Investor Protection Fund
ISC	Investor Service Cell
ISIN	International Securities Identification Number
KYC	Know Your Client
LTP	Last Trade Price
MBP	Market By Price
MAC	Membership Approval Committee
MF	Mutual Funds
MI	Market Inquiry
MM	Market Movement
MCA	Member Constituent Agreement
MCA	Ministry of Corporate Affairs
MRC	Membership Recommendation Committee
MTM	Mark To Market
MW	Market Watch
NEAT	National Exchange for Automated Trading
NCFM	NSE's Certification in Financial Markets
NCIT	Non Custodian Institutional Trade
ND	No Delivery
NISM	National Institute of Securities Market
NOC	No Objection Certificate
NSCCL	National Securities Clearing Corporation Ltd.

NSDL	National Securities Depository Ltd.
NSE	National Stock Exchange
NT	Negotiated Trade
O	Odd Lot market
OCXL	Order Cancellation
OTC	Over The Counter
OECLOB	Open Electronic Consolidated Limit Order Book
OO	Outstanding Orders
OM	Order Modification
OS	Order Status
PAN	Permanent Account Number
PCM	Professional Clearing Member
PFRDA	Pension Fund Regulatory and Development Fund
PRO	Proprietary
PT	Previous Trades
RBI	Reserve Bank of India
RDD	Risk Disclosure Document
RETDEBT	Retail Debt
RDM	Retail Debt Market
SAT	Securities Appellate Tribunal
SBTS	Screen Based Trading System
SC(R)A	Securities Contracts (Regulation) Act, 1956
SC(R)R	Securities Contracts (Regulation) Rules, 1957
SEBI	Securities and Exchange Board of India
SL	Stop Loss
SLBS	Securities Lending and Borrowing Scheme
SGF	Settlement Guarantee Fund
SQ	Snap Quote
SRO	Self Regulatory Organization
STT	Securities Transaction Tax
SURCON	Surveillance and Control
T+2	Second day from the trading day
TFT	Trade for Trade
TFTS	Trade for Trade Surveillance
TM	Trading Member
UCC	Unique Client Code

UDR	Unique Documentary Requirement
UTI	Unit Trust of India
UOVL	User Order Value Limit
VaR	Value at Risk
VIX	Volatility Index
VSAT	Very Small Aperture Terminal
WDM	Wholesale Debt Market
XB	Ex-Bonus
XD	EX-Dividend
XI	Ex-Interest
XR	Ex-Rights

#### References and suggested readings

The readings suggested here are supplementary in nature and would prove to be helpful for those interested in acquiring advanced knowledge about Capital Markets.

1. [www.nseindia.com](http://www.nseindia.com)
  2. [www.sebi.gov.in](http://www.sebi.gov.in)
  3. [www.rbi.org.in](http://www.rbi.org.in)
  4. [www.finmin.nic.in](http://www.finmin.nic.in)
  5. Rules, Regulations and Byelaws of NSEIL & NSCCL
  6. Indian Securities Market: A Review - NSEIL publication
- NSE Newsletter – NSEIL publication

**Distribution of weights of the**  
**Capital Market (Dealers) Module Curriculum**

<b>Chapter No</b>	<b>Title</b>	<b>Weights (%)</b>
1.	An Overview of the Indian Securities Market	10
2.	Trading Membership	20
3.	Trading	30
4.	Clearing and Settlement	25
5.	Legal Framework	9
6.	Fundamental Valuation Concepts	6

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

Copyright © 2018 by NSE Academy Ltd

National Stock Exchange of India Ltd. (NSE) Exchange Plaza,  
Bandra Kurla Complex, Bandra (East), Mumbai 400 051 INDIA

All content included in this book, such as text, graphics, logos, images, data compilation etc. are the property of NSE. This book or any part thereof should not be copied, reproduced, duplicated, sold, resold or exploited for any commercial purposes. Furthermore, the book in its entirety or any part cannot be stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise.

# **CHAPTER 1: AN OVERVIEW OF THE INDIAN SECURITIES MARKET**

## **1.1 Market Segments**

Securities markets provide a channel for allocation of savings to those who have a productive need for them. The securities market has two interdependent and inseparable segments: (i) primary market and (ii) secondary market.

### **1.1.1 Primary Market**

Primary market provides an opportunity to the issuers of securities, both Government and corporations, to raise resources to meet their requirements of investment. Securities, in the form of equity or debt, can be issued in domestic/international markets at face value, discount or premium.

The primary market issuance is done either through public issues or private placement. Under Companies Act, 1956, an issue is referred as public if it results in allotment of securities to 50 investors or more. However, when the issuer makes an issue of securities to a select group of persons not exceeding 49 and which is neither a rights issue nor a public issue it is called a private placement.

### **1.1.2 Secondary Market**

Secondary market refers to a market where securities are traded after being offered to the public in the primary market or listed on the Stock Exchange. Secondary market comprises of equity, derivatives and the debt markets. The secondary market is operated through two mediums, namely, the Over-the-Counter (OTC) market and the Exchange-Traded market. OTC markets are informal markets where trades are negotiated.

## **1.2 Key Indicators of Securities Market**

### **1.2.1 Index**

An Index is used to give information about the price movements of products in the financial, commodities or any other markets. Stock market indices are meant to capture the overall behaviour of the equity markets. The stock market index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. The bluechip index of NSE is CNX Nifty.

### **1.2.2 Market Capitalisation**

Market capitalisation is defined as value of all listed shares on the country's exchanges. It is computed on a daily basis. Market capitalisation of a particular company on a particular day can be computed as product of the number of shares outstanding and the closing price of the

share. Here the number of outstanding shares refers to the issue size of the stock.

Market Capitalisation = Closing price of share \* Number of outstanding shares

Similarly, to compute the market capitalization of all companies listed on an Exchange we aggregate the market capitalization of all the companies traded on the Exchange.

### **1.2.3 Market Capitalisation Ratio**

The market capitalization ratio is defined as market capitalization of stocks divided by GDP. It is used as a measure of stock market size.

### **1.2.4 Turnover**

Turnover for a share is computed by multiplying the traded quantity with the price at which the trade takes place. Similarly, to compute the turnover of the companies listed at the Exchange we aggregate the traded value of all the companies traded on the Exchange.

### **1.2.5 Turnover Ratio**

The turnover ratio is defined as the total value of shares traded on a country's stock Exchange for a particular period divided by market capitalization at the end of the period. It is used as a measure of trading activity or liquidity in the stock markets.

Turnover Ratio = Turnover at Exchange / Market Capitalisation at Exchange

## **1.3 Products and Participants**

### **1.3.3 Products**

Financial markets facilitate reallocation of savings from savers to entrepreneurs. Savings are linked to investments by a variety of intermediaries through a range of complex financial products called "securities". Under the Securities Contracts (Regulation) Act [SC(R)A], 1956, "securities" include (i) shares, bonds, scrips, stocks or other marketable securities of like nature in or of any incorporate company or body corporate, (ii) government securities, (iii) derivatives of securities, (iv) units of collective investment scheme, (v) interest and rights in securities, and security receipt or any other instruments so declared by the central government. Broadly, securities can be of three types - equities, debt securities and derivatives.

### **1.3.4 Participants**

The securities market has essentially three categories of participants (i) the investors, (ii) the issuers, (iii) the intermediaries (Figure 1.1). These participants are regulated by the Securities and Exchange Board of India (SEBI), Reserve Bank of India (RBI), Ministry of Corporate Affairs (MCA) and the Department of Economic Affairs (DEA) of the Ministry of Finance.





**Figure 1.1 Market Participants**

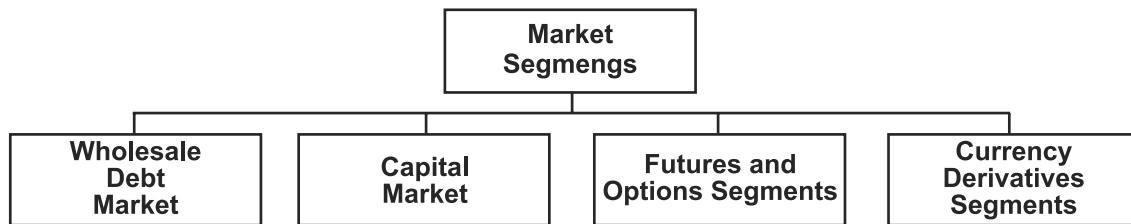
Table 1.1 below provides the information on Market participants in India.

**Table: 1.1 Market Participants in India**

Market Participants
Investors
Individual Investors
Corporate Investors
Foreign Venture Capital Investors
FIIIs
Depositories
Stock Exchanges
With Equities Trading
With Debt Market Trading
With Derivative Trading
With Currency Derivatives
Brokers
Corporate Brokers
Sub-brokers
Portfolio Managers
Custodians
Registrars to an issue & Share Transfer Agents
Primary Dealers
Merchant Bankers
Bankers to an Issue
Debenture Trustees
Underwriters
Venture Capital Funds
Mutual Funds
Collective Investment Schemes

## 1.4 Market Segments and their Products

The Exchange (NSE) provides trading in four different segments - Wholesale Debt Market, Capital Market, Futures and Options and Currency Derivatives Segment as depicted in the Figure 1.2 below.



**Figure 1.2: Market Segments**

- (i) Wholesale Debt Market (WDM) Segment: This segment at NSE commenced its operations in June 1994. It provides the trading platform for wide range of debt securities which includes State and Central Government securities, T-Bills, PSU Bonds, Corporate debentures, Commercial Papers, Certificate of Deposits etc.
- (ii) Capital Market (CM) Segment: This segment at NSE commenced its operations in November 1994. It offers a fully automated screen based trading system, known as the National Exchange for Automated Trading (NEAT) system. Various types of securities e.g. equity shares, warrants, debentures etc. are traded on this system.
- (iii) Futures & Options (F&O) Segment: This segment provides trading in derivatives instruments like index futures, index options, stock options, and stock futures, and commenced its operations at NSE in June 2000.
- (iv) Currency Derivatives Segment (CDS) Segment: This segment at NSE commenced its operations on August 29, 2008, with the launch of currency futures trading in US Dollar-Indian Rupee (USD-INR). Trading in other currency pairs like Euro-INR, Pound Sterling-INR and Japanese Yen-INR was further made available for trading in February 2010. 'Interest rate futures' was another product made available for trading on this segment with effect from August 31, 2009.

## 1.5 Reforms in Indian Securities Markets

Over a period, the Indian securities market has undergone remarkable changes and grown exponentially, particularly in terms of resource mobilisation, intermediaries, the number of listed stocks, market capitalisation, turnover and investor population. The following paragraphs list the principal reform measures undertaken since 1992.

Creation of Market Regulator: Securities and Exchange Board of India (SEBI), the securities market regulator in India, was established under SEBI Act 1992, with the main objective

nd responsibility for (i) protecting the interests of investors in securities, (ii) promoting the development of the securities market, and (iii) regulating the securities market.

**Screen Based Trading:** Prior to setting up of NSE, the trading on stock exchanges in India was based on an open outcry system. The system was inefficient and time consuming because of its inability to provide immediate matching or recording of trades. In order to provide efficiency, liquidity and transparency, NSE introduced a nation-wide on-line fully automated screen based trading system (SBTS) on the CM segment on November 3, 1994.

**Reduction of Trading Cycle:** Earlier, the trading cycle for stocks, based on type of securities, used to vary between 14 days to 30 days and the settlement involved another fortnight. The Exchanges, however, continued to have different weekly trading cycles, which enabled shifting of positions from one Exchange to another. It was made mandatory for all Exchanges to follow a uniform weekly trading cycle in respect of scrips not under rolling settlement. In December 2001, all scrips were moved to rolling settlement and the settlement period was reduced progressively from T+5 to T+3 days. From April 2003 onwards, T+2 days settlement cycle is being followed.

**Equity Derivatives Trading:** In order to assist market participants in managing risks better through hedging, speculation and arbitrage, SC(R) A was amended in 1995 to lift the ban on options in securities. Trading in derivatives, however, took off in 2000 with index futures after suitable legal and regulatory framework was put in place. The market presently offers index futures, index options, single stock futures and single stock options.

**Demutualisation:** Historically, stock exchanges were owned, controlled and managed by the brokers. In case of disputes, integrity of the stock exchange suffered. NSE, however, was set up with a pure demutualised governance structure, having ownership, management and trading with three different sets of people. Currently, all the stock exchanges in India have a demutualised set up.

**Dematerialisation:** As discussed before, the old settlement system was inefficient due to (i) the time lag for settlement and (ii) the physical movement of paper-based securities. To obviate these problems, the Depositories Act, 1996 was passed to provide for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed and accuracy. There are two depositories in India, viz. NSDL and CDSL. They have been set up to provide instantaneous electronic transfer of securities. Demat (Dematerialised) settlement has eliminated the bad deliveries and associated problems. To prevent physical certificates from sneaking into circulation, it has been made mandatory for all newly issued securities to be compulsorily traded in dematerialised form. Now, the public listed companies making IPO of any security for Rs.10 crore or more have to make the IPO only in dematerialised form.

**Clearing Corporation:** The anonymous electronic order book ushered in by the NSE did not permit members to assess credit risk of the counter-party and thus necessitated some innovation in this area. To address this concern, NSE had set up the first clearing corporation, viz. National Securities Clearing Corporation Ltd. (NSCCL), which commenced its operations in April 1996.

**Investor Protection:** In order to protect the interest of the investors and promote awareness, the Central Government (Ministry of Corporate Affairs<sup>1</sup>) established the Investor Education and Protection Fund (IEPF) in October 2001. With the similar objectives, the Exchanges and SEBI also maintain investor protection funds to take care of investor claims. SEBI and the stock exchanges have also set up investor grievance / service cells for redress of investor grievance. All these agencies and investor associations also organise investor education and awareness programmes.

**Globalisation:** Indian companies have been permitted to raise resources overseas through issue of ADRs, GDRs, FCCBs and ECBs. Further, FIIs have been permitted to invest in all types of securities, including government securities and tap the domestic market. The investments by FIIs enjoy full capital account convertibility. They can invest in a company under portfolio investment route upto 24% of the paid up capital of the company. This can be increased up to the sectoral cap/statutory ceiling, as applicable to the Indian companies concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its general body. The Indian stock exchanges have been permitted to set up trading terminals abroad. The trading platform of Indian exchanges is now accessible through the Internet from anywhere in the world. RBI permitted two-way fungibility for ADRs / GDRs, which means that the investors (foreign institutional or domestic) who hold ADRs / GDRs can cancel them with the depository and sell the underlying shares in the market.

**Launch of India VIX<sup>2</sup>:** Volatility index is a measure of market's expectation of volatility over the near term. It measures the amount by which an underlying Index is expected to fluctuate in the near term, based on the order book of the underlying index options. India's first volatility index, India VIX (based on the Nifty 50 Index Option prices) was launched by NSE in April 2008.

**Direct Market Access:** In April 2008, SEBI allowed the direct market access (DMA) facility to the institutional investors. DMA allows brokers to offer their respective clients, direct access to

---

1. Earlier known as Department of Company Affairs.

2. "VIX" is a trademark of Chicago Board Options Exchange, Incorporated ("CBOE") and Standard & Poor's has granted a license to NSE, with permission from CBOE, to use such mark in the name of the India VIX and for purposes relating to the India VIX.

the Exchange trading system through the broker's infrastructure without manual intervention by the broker.

**Launch of Securities Lending & Borrowing Scheme:** In April 2008, the Securities Lending & Borrowing mechanism was allowed. It allows market participants to take short positions effectively with less cost.

**Launch of Currency Futures:** On August 29, 2008, NSE launched trading in currency future contracts in the USD-INR pair for the first time in India. Trading in other currency pairs like Euro – INR, Pound Sterling – INR and Japanese Yen was further made available for trading in March 2010.

**ASBA:** Application Supported by Blocked Amount (ASBA) is a major primary market reform. It enables investors to apply for IPOs / FPOs and rights issues without making a payment. Instead, the amount is blocked in investors' own account and only an amount proportionate to the shares allotted goes out when allotment is finalized.

**Launch of Interest Rate Futures:** On August 31, 2009, futures on interest rate was launched on the National Stock Exchange.

**Issue of Capital and Disclosure Requirements (ICDR) Regulations 2009:** In August 2009, the SEBI issued Issue of Capital and Disclosure Requirements (ICDR) Regulations 2009, replacing the Disclosure and Investor Protection (DIP) Guidelines 2000. ICDR Regulations 2009 would govern all disclosure norms regarding issue of securities.

# CHAPTER 2: TRADING MEMBERSHIP

## 2.1 Stock Brokers

A stock broker is an intermediary who arranges to buy and sell securities on the behalf of clients (the buyer and the seller). According to SEBI (Stock Brokers and Sub-Brokers) Regulations, 1992, a stockbroker is member of a stock exchange and requires to hold a certificate of registration from SEBI in order to buy, sell or deal in securities. SEBI grants a certificate to a stock broker subject to the conditions that the stock broker:

- (a) holds the membership of any stock exchange;
- (b) should abide by the rules, regulations and bye-laws of the stock exchange or stock exchanges of which he is a member;
- (c) should obtain prior permission of SEBI to continue to buy, sell or deal in securities in any stock exchange in case of any change in the status and constitution;
- (d) should pay the amount of fees for registration in the prescribed manner; and
- (e) should take adequate steps for redress of grievances of the investors within one month of the date of the receipt of the complaint and keep SEBI informed about the number, nature and other particulars of the complaints.

While considering the application of an entity for the grant of registration as a stock broker, SEBI checks out if the applicant:

- (a) is eligible to be admitted as a member of a stock exchange;
- (b) has the necessary infrastructure like adequate office space, equipment and manpower to effectively discharge his activities;
- (c) has any past experience in the business of buying, selling or dealing in securities;
- (d) is subjected to any disciplinary proceedings under the rules, regulations and bye-laws of a stock exchange with respect to his business as a stock-broker involving either himself or any of his partners, directors or employees.

## 2.2 NSE Membership

There are no entry/exit barriers to the membership of NSE. Anybody can become a member by complying with the prescribed eligibility criteria and exit by surrendering membership without any hidden cost.

The members are admitted to different segments of the Exchange subject to the provisions of the Securities Contracts (Regulation) Act, 1956, the SEBI Act, 1992, the rules, circulars,

notifications, guidelines, etc. issued hereunder and the byelaws, rules and regulations of the Exchange. The trading members of NSE have certain benefits, which includes:

- (a) Access to a nation-wide trading facility for equities, derivatives, debt and hybrid instruments / products;
- (b) Ability to provide a fair, efficient and transparent securities market to the investors;
- (c) Use of state-of-the-art electronic trading systems and technology;
- (d) Dealing with an organisation which follows strict standards for trading & settlement at par with those available at the top international bourses and constantly strives to move towards a global marketplace in thesecurities industry.

### **2.2.1 New Membership**

The persons eligible to become trading members of Exchange are:

- (a) Individuals;
- (b) Partnership firms registered under the Indian Partnership Act, 1932.
- (c) Institutions, including subsidiaries of banks engaged in financial services;
- (d) Banks for Currency Derivatives Segment;
- (e) Body corporates including companies as defined in the Companies Act, 1956. A company is eligible to be admitted as a member if:
  - (i) It is formed in compliance with provisions of Section 12 of the Companies Act 1956 which mentions about the mode of forming incorporated company;
  - (ii) It complies with the financial requirements and norms as may be specified by SEBI;
  - (iii) The directors of the company shouldn't have been disqualified for being members of a stock exchange and should not have held the offices of the directors in any company which had been a member of the stock exchange and had been declared defaulter or expelled by the stock exchange; and
- (f) Such other persons or entities as may be permitted from time to time by RBI/SEBI under the Securities Contracts (Regulations) Rules, 1957.

#### *Membership for Different Segments at NSE*

Persons or Institutions desirous of securing admission as members (stock brokers) on the Exchange may apply for membership on any one of the following segment groups:

- (a) Wholesale Debt Market (WDM) Segment
- (b) Capital Market (CM) segment
- (c) Capital Market (CM) and Wholesale Debt Market (WDM) segment

- (d) Capital Market (CM) and Futures & Options (F&O) segment
- (e) Capital Market (CM), Futures & Options (F&O) segment and Wholesale Debt Market (WDM) segment
- (f) Currency Derivatives (CD) segment with or without the above mentioned segments.
- (g) Clearing Membership of National Securities Clearing Corporation Ltd. (NSCCL) as a Professional Clearing Member (PCM). Professional Clearing Members do not trade but only clear and settle trades executed by other trading members (TMs). Professional clearing membership is only applicable for the F&O and Currency Derivatives segments.

In addition to the trading membership in the F&O segment, the trading member can also take two types of clearing membership in the F&O Segment i.e. as a clearing member and self clearing member. The self clearing members clear and settle the trades executed by them only, either on their account or on account of their clients. Trading members cum clearing members can clear and settle their own trades as well as trades of other trading members.

Trading members registered in F&O segment and CD segment are eligible to trade in interest rate futures market.

### ***2.2.2 Eligibility Criteria for Membership at NSE***

The standards for admission of members are laid down by the Exchange in terms of corporate structure (shareholding pattern), capital adequacy (Paid up capital), net worth, Interest Free Security Deposit (IFSD), Collateral Security Deposit (CSD), track record, education, experience etc. This is done to ensure quality broking services so as to build and sustain confidence among investors in the Exchange's operations.

#### ***Corporate Structure (Shareholding Pattern)***

Securities markets are inherently volatile and risky, and hence risk containment mechanisms are put in place by the stock exchange. One such risk containment tool is the concept of 'Dominant Promoter/Shareholder Group' which is very unique for applicants acquiring membership on the NSE. The shareholders holding the majority of shares have a dominant role in the affairs of the company. In case of any default by the broking entity, the Exchange should be able to identify and take action against the persons who are behind the company. The Exchange, therefore, needs to know the background, financial soundness and integrity of the shareholders holding such controlling interest. Hence, during the admission process (explained in the later section of the book) the dominant shareholders are called for an interview with the Membership Recommendation Committee (MRC).



Dominant Promoter norms are applicable to all trading members. The norms relating to dominant promoters falls in different categories such as unlisted corporate trading member, listed corporate trading member, corporate shareholders, banks, central or state government owned finance and development institutions and foreign entities, which are given as under:

- (i) Unlisted corporate trading member: In case of an unlisted corporate trading member, there are three conditions under which the corporate trading member will be eligible to constitute dominant promoter group. These conditions are given below:

If a person holds 51% of shares in the trading member corporate on his own or together with

- (a) his relatives as defined under Companies Act 1956
  - (b) person(s) falling within the definition of 'control'<sup>3</sup> under the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997.
  - (c) the support of strategic investors in such corporate trading member. (Strategic investors mean the corporates or individual investors that add value to investments they make through industry and personal ties that can assist companies in raising additional capital including financial investors, venture capitalists and others who invest primarily with the aim of generating a large return on their investment).
- (ii) Listed corporate trading member: In case of listed corporate trading members, any person(s) identified as promoter in the offer document or in any document for offer of securities to the public or existing shareholders or in the shareholding pattern disclosed by the corporate trading member under the provisions of the Listing Agreement, whichever is later, would be eligible to constitute dominant promoter group.
- (iii) Corporate shareholders to be identified as dominant shareholders: Corporate shareholder is allowed to be identified as dominant shareholders (Dominant Promoter Group - DPG) of a corporate trading member provided that the corporate shareholder identifies any person or persons as their dominant promoter group as per the aforesaid norms applicable to the corporate trading member. In case the dominant promoter group consists of more than one corporate shareholder, the dominant promoter group should be identified separately for each such corporate shareholder.

---

3. Here 'control' means the right to appoint majority of directors or to control the management or policy decisions by virtue of the shareholding or management rights.

- (iv) Banks, central or state government owned finance and/or development institutions: The following entities are allowed to be identified as dominant shareholder(s) provided they have a networth of at least Rs.50 crores:
- (a) Scheduled Banks;
  - (b) Central or State Government owned Finance and/or Development Institutions;
  - (c) Any financial institution registered and regulated by any regulatory authority such as RBI, SEBI, IRDA;
  - (d) Any other entity that is fit to be identified as dominant shareholder in the opinion of relevant authority.
- (v) Foreign Entities: Foreign entities are allowed to take trading membership of the Exchange through their Indian subsidiary under the automatic approval route permitted by the government, subject to compliance with the following guidelines of the RBI in this regard.
- (e) The promoting foreign entity or its subsidiary should be either a bank or insurance organisation regulated by the Central Bank or such other appropriate regulatory authority of that country

Or

The promoting foreign entity or its subsidiary should be broking house/ participant in the securities market that is registered or regulated by the relevant regulatory authority of that country and that the relevant authority should be a member of International Organisation of Securities Commission (IOSCO). The entity should have a sound track record.

Or

The promoting foreign entity is one whose domestic arm or subsidiary is registered with SEBI for participation in any domestic venture for custodial or Asset Management services.

- (b) The promoting foreign entity shall hold, directly or indirectly not less than 51 % of the controlling stake in the applicant company proposing to take the trading membership of the Exchange.
- (c) The net worth of the entity having controlling stake in the applicant company or the promoting foreign entity should be at least Rs. 50 Crores.

A foreign entity is allowed to become part of the dominant promoter group of an existing trading member corporate provided it meets the dominant promoter group norms as applicable to Indian entities, FIPB (Foreign Investment Promotion Board) norms / RBI norms and any other requirements of the Exchange / SEBI as may be applicable from time to time.

Corporate trading members will also be allowed to change their shareholding pattern so long as such change is within the above norms and the existing Dominant Promoter Group (DPG) continues to hold controlling interest and prior approval from the Exchange is obtained. Once a DPG is identified during admission, the same has to be maintained at all points of time. In case of any change in the DPG, the trading member is required to seek fresh approval of the Exchange as it is done at the time of admission of new trading member and rules relating to the same apply. Inter-se transfer of shareholding among the dominant promoters, however will be exempt from the formalities as required in case of new trading membership. Any changes in the shareholding require prior approval from the Exchange, except in case of shareholding changes related to public shareholding in a listed company.

Failure to maintain the required level of shareholding by DPG is treated as a breach of the continuing membership norms and tantamounts to reconstitution of the trading member corporate. This is because the existing DPG would no longer hold controlling interest in the trading member corporate or alternatively a new group would have emerged with controlling stake. In such case the Exchange can initiate disciplinary action including withdrawal of trading facility of such trading members.

#### *Networth and Other Deposit Requirements*

The networth of the member is calculated as summation of Capital and free reserves less non allowable assets. Non allowable assets include fixed assets, pledged securities, member's card, non-allowable securities (unlisted securities), bad deliveries, doubtful debts and advances, prepaid expenses, intangible assets and 30% marketable securities.

Deposit requirements are of two types i.e. Interest Free Security Deposit (IFSD) and Collateral Security Deposit (CSD). IFSD has to be in liquid cash while CSD can be in cash or non-cash form. Cash component means cash, bank guarantees, fixed deposit receipts, units of money market mutual fund and gilt funds and any other form of collateral as may be prescribed from time to time. Non-cash component means all other forms of collateral deposits like deposit of approved list of demat securities and units of the other mutual funds and any other form of collateral as may be prescribed from time to time.

The eligibility criteria for corporates, individuals and partnership firms for different segments of the Exchange are explained in Table 2.1 and 2.2 below.

**Table 2.1: Eligibility Criteria for Membership-Corporates (Amount in Rs. Lakh)**

<b>Particulars/ Segments</b>	<b>CM</b>	<b>CM and F&amp;O</b>	<b>WDM</b>	<b>CM and WDM</b>	<b>CM,WDM and F&amp;O</b>
Minimum Paid-up capital	30	30	30	30	30
Net Worth	100	100	200	200	200
		(Membership in CM segment and Trading/ Trading and self clearing membership in F&O segment) 300 (Membership in CM segment and Trading and Clearing membership in F&O segment)			(Membership in WDM segment, CM segment and Trading/ Trading and Self Clearing membership in F&O segment) 300 (Membership in WDM segment, CM segment and Trading and Clearing membership in F&O segment)
Interest Free Security Deposit with NSEIL	85	110	150	235	260
Interest Free Security Deposit with NSCCL	15	15*	NIL	15	15*
Collateral Security Deposit with NSCCL	25	25**	NIL	25	25**
Annual Subscription	1	1	1	2	2
Advance Minimum Transaction Charges for Futures Segment	NIL	1	NIL	NIL	1

<b>Particulars/ Segments</b>	<b>CM</b>	<b>CM and F&amp;O</b>	<b>WDM</b>	<b>CM and WDM</b>	<b>CM,WDM and F&amp;O</b>
Education	Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Derivatives and Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM & Capital Market Module of NCFM.	Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM, Capital Market Module of NCFM.& of NCFM.& SEBI approved certification test for Derivatives
Experience	----- Two year's experience in securities market -----				
Track Record	The Directors should not be defaulters on any stock exchange. They must be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.				

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

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

**Table 2.2: Eligibility Criteria for Membership- Individuals/ Partnership Firms**

(Amount in Rs. lakh)

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

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

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

In addition to certain eligibility criterion, there are certain professional requirements for clearing membership as described in Table 2.3 below.

**Table 2.3: Requirements for Professional Clearing Membership**

(Amount in Rs. lakh)

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

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

The following Table 2.4 provides the eligibility criterion for trading membership and clearing membership for currency derivatives.

**Table 2.4: Currency Derivatives- Corporates, Individuals and Firms**

(Amount in Rs. Lakh)

Particulars	NSE Members		NCDEX Members		New Applicants		
	Trading Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Clearing Membership	Professional Clearing Membership
Networth	100	1000	100	1000	100	1000	1000
Interest Free Security Deposit with NSEIL	2	2	2	2	2	2	-
Collateral Security Deposit with NSEIL	8	8	10.5	13	13	18	-
Interest Free Security Deposit with NSCCL	-	25	-	25	-	25	25
Collateral Security Deposit with NSCCL	-	25	-	25	-	25	25

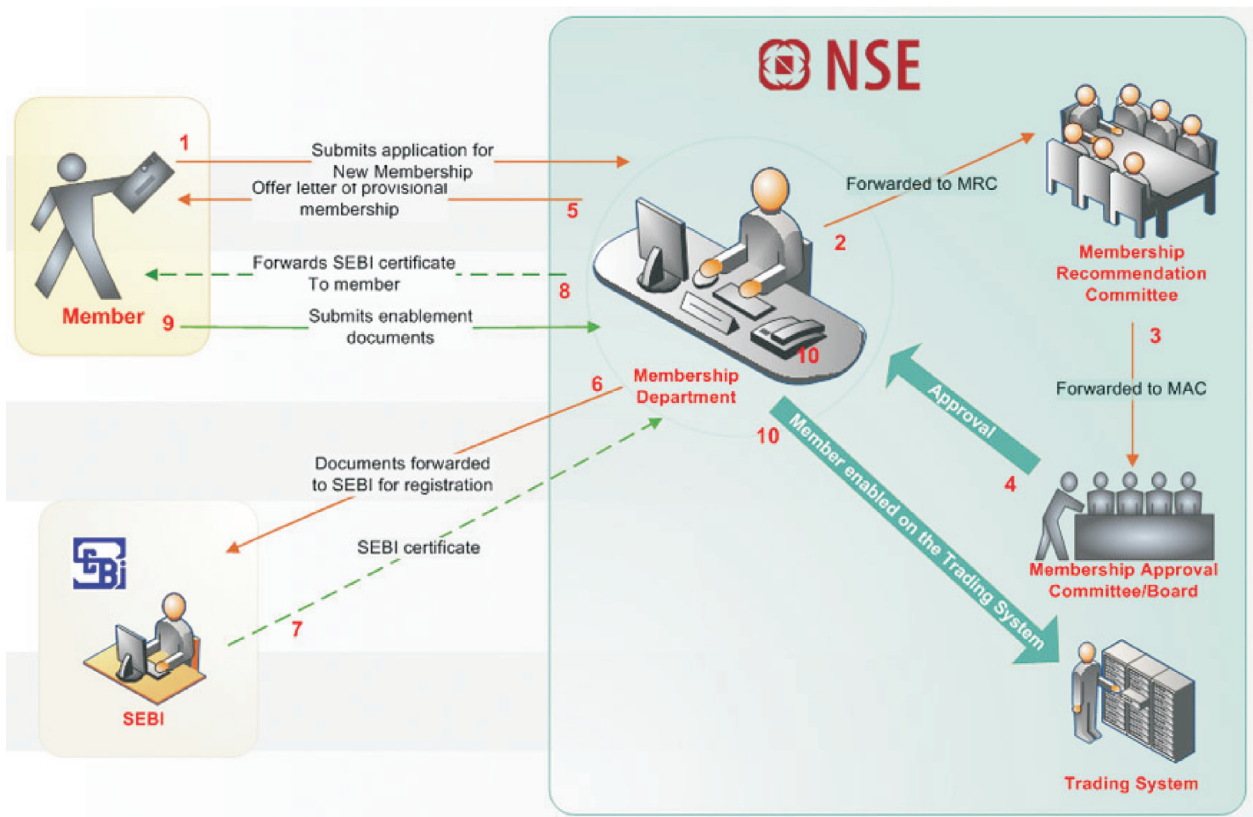
Particulars	NSE Members		NCDEX Members		New Applicants		
	Trading Member-ship	Trading cum Clearing Member-ship	Trading Member-ship	Trading cum Clearing Member-ship	Trading Member-ship	Trading cum Clearing Member-ship	Professional Clearing Member-ship
Education	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination						
Experience	-----Two year's experience in securities market-----						
Track Record	The Directors/Partners/Proprietor should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries. They must be engaged solely in the business of securities and must not be engaged in any fund-based activity.						

In addition to the individuals, corporates and partnership firms, Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' are permitted to become trading and clearing members of the currency derivatives market of the recognized stock exchanges, on their own account and on behalf of their clients, subject to minimum prudential requirements of minimum net worth of Rs. 500 crores, minimum CRAR of 10 per cent, net NPA not exceeding 3 per cent and net profit should have been made for last 3 years.

The AD Category - I banks which fulfill the prudential requirements are required to lay down detailed guidelines with the approval of their Boards for trading and clearing of currency derivatives contracts and management of risks. AD Category - I banks which do not meet the above minimum prudential requirements and AD Category - I banks which are Urban Co-operative banks or State Co-operative banks can participate in the currency derivatives market only as clients, subject to approval therefore from the respective regulatory Departments of the Reserve Bank.



### 2.2.3 Admission Procedure for New Membership



**Figure: 2.1 Admission procedure for new membership at NSE**

Admission is a two-stage process with applicants requiring to go through an examination (a module of NCFM) followed by an interview with the Membership Recommendation Committee. At any point of time the applicant has to ensure that at least the sole proprietor/one of the designated partner/one of the designated director/compliance officer has a valid certificate of Securities Market (Basic) Module or Compliance Officers (Brokers) Module or the relevant module pertaining to the segments wherein membership of the Exchange has been sought.i.e.

- (a) Capital Market (Dealers) Module
- (b) Derivatives Market (Dealers) Module
- (c) National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination

The admission procedure for new membership depicted in figure 2.1 is explained below:

Applicants are required to submit application form, in the prescribed format along with other relevant documents to the Exchange.

The application for new membership is then forwarded to Membership Recommendation Committee. The Membership Recommendation Committee (MRC) consists of seven persons from

various disciplines. The MRC conducts interviews of the applicants for trading membership. In case of corporates, the dominant shareholder and designated directors; in case of individuals, the individual himself and in case of partnership firms – two designated partners have to appear for the interview. The purpose of the interview is to acquire information about their capability & commitment to carry on stock broking activities, financial standing and integrity. The MRC recommends the names for admission of trading members to the Membership Approval Committee (Sub-committee of board of directors)/Board of directors of the Exchange. The Board of Directors after taking into consideration the recommendations of the MRC either approves or rejects the applications.

On getting approval from the Board, an admission on a provisional basis is provided to the applicant subject to certain conditions like registration with SEBI, submission of relevant fees/ deposits and documents. The documents of the member are then forwarded to SEBI for registration.

After satisfying itself as to compliance with respect to all the prescribed norms, SEBI grants a Registration Certificate in the name of the applicant.

The applicant then has to remit the prescribed membership deposits (as required by the demand advice attached to the provisional offer letter) within the time frame prescribed in the demand advice attached to the provisional offer letter.

After obtaining SEBI Registration, the trading member has to satisfy the Exchange and NSCCL regarding all the formalities and requirements such as payment of fees/deposits and submission of relevant documents, for enablement. The dealers on CM segment are required to clear the Capital Market (Dealers) Module of NCFM; dealers on Futures & Options Segment are required to clear the Derivatives Market (Dealers) Module or equivalent examination of NCFM and dealers on Currency Derivatives segment are required to clear National Institute of Securities Market (NISM) Series I- Currency Derivatives Certification Examination. This is a pre-requisite without which user-ids are not issued.

After ensuring that all the formalities and requirements with regard to the Exchange and NSCCL are complied, the Trading Member is enabled to trade on the NEAT system.

### **2.3 Surrender of Trading membership**

Trading members can apply for surrender of their trading membership once admitted to the Exchange. Surrender of trading membership can be permitted by the Exchange after fulfilling certain conditions by the member such as, clearing off all the dues to the Exchange and NSCCL, notifying all other TMs of the approval of surrender, obtaining 'No dues' certificate

from SEBI, issuance of a public notification in leading dailies etc. The deposits of the trading members would be released by the Exchange/NSCCL after a prescribed lock-in period. There is, however, no lock-in period applicable in case of trading member, who is,

- (a) Not SEBI registered
- (b) SEBI registered but not enabled
- (c) SEBI registered and enabled but not traded at all

NSE provides a scheme for enabling the trading member to surrender their membership to the Exchange. Details of the norms and procedures related to the surrender of membership to the Exchange are prescribed as below:

- (a) A trading member desirous of surrendering its membership of the Exchange is required to send its request in writing in the prescribed format.
- (b) Before submission of an application for surrender of membership, the trading member is required to comply with all the pre-requisites for application of surrender in the prescribed format. The following aspects should be covered in the application for surrender of membership from a trading member,
  - (i) who has been suspended/ disciplinary action taken by the Exchange /SEBI
  - (ii) in respect of whom any investigation/ action consequent to a default has been initiated by the Exchange /SEBI,
  - (iii) who is falling within the category of 'associates' as defined by SEBI,
  - (iv) who owes dues to the Exchange/ NSCCL,
  - (v) against whom claims by investors of value of Rs.10 lakh or more are pending or any claim for any amount is pending for a period more than 6 months,
  - (vi) against whom any other claim /complaint is pending which, in the opinion of the Exchange/ NSCCL, needs to be resolved by the concerned trading member,
  - (vii) whose turnover fees liability to SEBI is still outstanding,

The Exchange has absolute discretion in dealing with such applications and if it decides to process/accept the surrender application of such trading member, it may impose additional terms and conditions as it may deem fit.

- (c) No trading member, who has surrendered its trading membership, their partners (in case of partnership firm) and/ or dominant shareholders (in case of corporates) is eligible to be re-admitted to the trading membership of the Exchange in any form for a period of one year from the date of cessation of trading membership (i.e. from the date of approval of surrender).

- (d) The application of surrender of trading membership is subject to fulfillment of certain conditions, such as submission of original SEBI registration certificate(s) on all segments on which the trading member is registered; submission of sub-broker registration certificate(s) of all the sub-brokers associated with the trading member for onward transmission to the SEBI for cancellation etc.
- (e) The trading member should request the Exchange through their surrender application to dismantle and recover all the leased line(s)/ VSAT(s) and other equipments given to them at their dealing offices.
- (f) A notice to public by way of a public notification in newspapers should be made by the Exchange and certain time (from the date of public notification) is given to investors, public, etc. to lodge claims against the surrendering trading member.
- (g) A letter is also sent to SEBI seeking pending dues, if any, from member.
- (h) On the expiry of period for receipt of investor claims and on receipt of intimation of dues amount, if any, from SEBI, the total amount payable by the member should be appropriated against trading member's deposits available with the Exchange / NSCCL and the trading member will be intimated accordingly. In case the amount payable exceeds the deposits, the trading Member would be intimated to bring in the requisite amount within 21 days of intimation. Upon the failure of the member to do so within 21 days of intimation, the case shall be referred to the relevant authority for further action.

## **2.4 Suspension & Expulsion of Membership**

The Exchange may expel or suspend, fine under censure, warn, withdraw any of the membership rights of a trading member if it is guilty of contravention, non-compliance, disobedience, disregard or evasion of any of the bye-laws, rules and regulations of the Exchange or of any resolutions, orders, notices, directions or decisions or rulings of the Exchange or the relevant authority.

### **2.4.1 Basis of Suspension of Membership**

Following are some grounds on basis of which there can be suspension or expulsion of membership:

- (i) Misconduct: A trading member is deemed guilty of misconduct for any of the following or similar acts or omissions namely:
  - (a) Fraud or fraudulent act or if he is convicted of a criminal offence.
  - (b) Violation of the provisions of any statute governing the activities, business and operations of the Exchange.

- (c) Improper conduct.
  - (d) Failure to submit to or abide by arbitration.
  - (e) Failure to testify or give information sought by the Exchange or any committee or any other person authorized on that behalf.
  - (f) Failure to submit special returns in such form as the relevant authority may from time to time prescribe.
  - (g) Failure to submit audited accounts.
  - (h) Failure to compare or submit accounts with defaulter.
  - (i) Failure to submit or make any false or misleading returns.
  - (j) Make vexatious, malicious or frivolous complaints.
  - (k) Failure to pay subscription fee, arbitration charges etc.
- (ii) Un-businesslike conduct: A trading member is deemed guilty of un-businesslike conduct for any of the following or similar acts or omissions namely:
- (a) Transaction or business dealings in fictitious names.
  - (b) Circulation of rumours.
  - (c) Any unfair dealing in securities which does not reflect the true market values.
  - (d) Market manipulation and rigging.
  - (e) Unwarrantable business which effects purchases or sales for its account or any account related to the trading member.
  - (f) If a trading member accepts less than a full and bonafide money payment in settlement of a debt due by another trading member arising out of a transaction in securities.
  - (g) Dishonoured cheque.
  - (h) Failure to carry out transactions with constituents.
- (iii) Unprofessional conduct: A trading member is deemed guilty of unprofessional conduct for any of the following or similar acts or omissions namely:
- (a) Business in securities in which dealings not permitted
  - (b) Business for defaulting constituent who failed to carry out engagements relating to securities and is in default to another trading member
  - (c) Transacts in business with an insolvent without obtaining the consent of the relevant authority even if the individual has obtained his final discharge from an insolvency court

- (d) Carrying out his business during his suspension period
  - (e) Business with suspended, expelled and defaulter trading members
  - (f) Business for employees of other trading members
  - (g) Business for Exchange employees if it makes a speculative transaction in which an employee of the Exchange is directly or indirectly interested
  - (h) If it advertises for business purposes or issue regularly circular or other business communications to persons other than its own constituents, trading members of the Exchange, banks and joint stock companies or publishes pamphlets, circular or any other literature or report or information relating to the stock markets with its name attached
  - (i) Evasion of margin requirements
  - (j) Evasion of brokerage charges
  - (k) Dealings with entities prohibited by SEBI to buy or sell or deal in securities market
- (iv) Trading member's responsibility for partners, agents and employees: A trading member is fully responsible for the acts and omissions of its partners, authorised officials, attorneys, agents, authorised representatives and employees. If any such act which is against the relevant rules and regulations is committed or omitted by them then the trading member is liable to the same penalty to the same extent as that act or omission been done or omitted by itself.
- (v) Suspension on failure to provide margin deposit and/or capital adequacy requirements: The Exchange can suspend the business of a trading member when it fails to provide the margin deposit and/or meets capital adequacy norms as provided in the Bye Laws, Rules and Regulations. The trading member shall remain suspended until he furnishes the necessary margin deposit or meet the capital adequacy requirements.

#### **2.4.2 Suspension of Business**

The relevant authority may require a trading member to suspend its business in part or in whole under following conditions:

- (a) Prejudicial business: When the relevant authority finds that the trading member conducts business in a manner prejudicial to the Exchange by making purchases or sales of securities or offers to purchase or sell securities for the purpose of upsetting equilibrium of the market or bringing about a condition of demoralisation in which prices will not fairly reflect market values, or

- (b) Unwarrantable business: When in the opinion of the relevant authority the trading member engages in unwarrantable business or effects purchases or sales for its constituent's account or for any account in which it is directly or indirectly interested which purchases or sales are excessive in view of its constituent's or its own means and financial resources or in view of the market for such security, or
- (c) Unsatisfactory financial condition: When the relevant authority finds that the trading member is in a bad financial condition and it cannot be permitted to do business with safety to its creditors or the Exchange.

#### **2.4.3 Removal of Suspension**

The suspension of business as above shall continue until the trading member has been allowed by the relevant authority to resume business. It may be done on its paying such deposit or on its doing such act or providing such thing as the relevant authority may require.

#### **2.4.4 Consequences of Suspension**

The suspension of a trading member has the following consequences:

- (a) Suspension of membership rights: The suspended trading member shall during the terms of its suspension be deprived of and excluded from all the rights and privileges of membership. It shall also include the right to attend or vote at any meeting of the general body of trading members of the relevant segment.
- (b) Rights of creditors unimpaired: The suspension should not affect the rights of the trading members who are creditors of the suspended trading member.
- (c) Fulfillment of contracts: The suspended trading members are bound to fulfill contracts outstanding at the time of its suspension.
- (d) Further business prohibited: The suspended trading member should not during the terms of its suspension make any trade or transact any business with or through a trading member. With the permission of the relevant authority, however it can close the transactions outstanding at the time of its suspension.
- (e) Trading members not to deal with suspended trading member: No trading member is allowed to transact in business with a suspended trading member during the terms of its suspension except with the prior permission of the relevant authority.

#### **2.4.5 Consequences of Expulsion**

The expulsion of a trading member has the following consequences:

- (a) Trading membership rights forfeited: The expelled trading member shall forfeit to the Exchange its right of trading membership and all rights and privileges as a trading

member of the Exchange including any right to the use of or any claim upon or any interest in any property or funds of the Exchange but any liability of any such trading member to the Exchange or to any trading member of the Exchange shall continue and remain unaffected by its expulsion.

- (b) Office vacated: The expulsion would create a vacancy in any office or position held by the expelled trading member.
- (c) Rights of creditors unimpaired: The expulsion does not affect the rights of the trading members who are creditors of the expelled trading member.
- (d) Fulfillment of contracts: The expelled trading members are bound to fulfill transactions outstanding at the time of his expulsion and it may with the permission of the relevant authority close such outstanding transactions with or through a trading member.
- (e) Trading members not to deal with expelled trading member: No trading member is allowed to transact business for or with or share brokerage with the expelled trading member except with the previous permission of the relevant authority.
- (f) Consequences of declaration of defaulter to follow: The provisions of pertaining to default and Protection Fund mentioned in the byelaws become applicable to the trading member expelled from the Exchange as if such trading member has been declared a defaulter.

## **2.5 Declaration of Defaulter**

A trading member may be declared a defaulter by direction /circular/notification of the relevant authority of the trading segment if:

- (a) he is unable to fulfill his obligations; or
- (b) he admits or discloses his inability to fulfill or discharge his duties, obligations and liabilities; or
- (c) he fails or is unable to pay within the specified time the damages and the money difference due on a closing-out effected against him under the bye laws, rules and regulations; or
- (d) he fails to pay any sum due to the Exchange or to submit or deliver to the Exchange on the due date, delivery and receive orders, statement of differences and securities, balance sheet and such other clearing forms and other statements as the relevant authority may from time to time prescribe; or
- (e) if he fails to pay or deliver to the defaulters' committee all monies, securities and other assets due to a trading member who has been declared a defaulter within such time of



the declaration of default of such trading member as the relevant authority may direct;  
or

- (f) if he fails to abide by the arbitration proceedings as laid down under the bye laws, rules and regulations.

Without prejudice to the foregoing, if a trading member is either expelled or declared a defaulter by any other recognised stock exchange on which he is a member or if the registration certificate is cancelled by SEBI, then the said trading member is expelled from the Exchange.

## **2.6 Authorised Persons**

Trading members of the Exchange can appoint authorised persons in the Capital Market, Futures & Options and Currency Derivatives Segments. Authorised Person is "Any person-individual, partnership firm, Limited Liability Partnership (LLP) or body corporate who is appointed as such by a stock broker (including trading member) and who provides access to trading platform of a stock exchange as an agent of the stock broker." Authorised Person can receive remuneration - fees, charges, commission, salary, etc. for his services only from the stock broker and shall not charge any amount from the clients. Accordingly, stock broker can share brokerage with the Authorised Person but shall not charge any amount directly from the clients

The clients introduced by the authorised person should have a direct relationship with the trading member i.e. the member-constituent agreement, know your client forms, risk disclosure document, etc. are executed between the client and the trading member. This implies that the authorised person is not allowed to have any trading relationship with the clients. The trading member should issue the contract notes and bills directly to the client i.e. the authorized person should not issue contract notes, confirmation memo and/or bills in their name.

The clients introduced by the authorised person are required to deliver securities and make payments directly in the trade name of the trading member (as appearing on the SEBI registration certificate). Similarly, the trading member should deliver securities and make payments directly in the name of the clients.

## **2.7 Sub-Brokers**

Sub broker is an important intermediary between stock broker and client in capital market segment. The trading members of the Exchange may appoint sub-brokers to act as agents of the concerned trading member for assisting the investors in buying, selling or dealing in securities. The sub-brokers are affiliated to the trading members and are required to be

registered with SEBI. A sub-broker is allowed to be associated with only one trading member of the Exchange.

Trading members desirous of appointing sub-brokers are required to submit the following documents to the Membership Department of the Exchange:

- (a) Copy of sub-broker - broker agreement duly certified by the trading members
- (b) Application form for registration as a sub-broker with Securities and Exchange Board of India (Form B)
- (c) Recommendation letter to be given by the trading member with whom the sub-broker is affiliated (Form C)

The trading member has to ensure the settlement of all deals entered into by a trading member even if the deals may have originated from its sub-broker.

The sub-broker will be required to adhere to NSE's 'know your clients' requirements. The important documents relating to dealing through a sub-broker are given below:

- (a) Individual client registration application form
- (b) Non-individual client registration application form
- (c) Sub-broker client agreement

### **2.7.1 Eligibility**

A sub-broker may be an individual, a partnership firm or a corporate. In case of corporate or partnership firm, the directors or partners and in the case of an individual sub-broker applicant should comply with the following requirements:

- (a) They should not be less than 21 years of age;
- (b) They should not have been convicted of any offence involving fraud or dishonesty;
- (c) They should have either passed 12<sup>th</sup> standard equivalent examination from an institution recognized by the Government or 10<sup>th</sup> standard with 2 years of work experience in securities market.
- (d) They should not have been debarred by SEBI

### **2.7.2 Registration**

No sub-broker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration granted by SEBI. Sub-brokers are required to obtain certificate of registration from SEBI in accordance with SEBI (Stock Brokers & Sub-brokers) Rules and Regulations, 1992, without which they are not permitted to buy, sell or deal in securities. SEBI may grant a certificate to a sub-broker, subject to the conditions that:

- (a) he should pay the fees in the prescribed manner;
- (b) he should take adequate steps for redress of grievances of the investors within one month of the date of the receipt of the complaint and keep SEBI informed about the number, nature and other particulars of the complaints received;
- (c) in case of any change in the status and constitution, the sub-broker should obtain prior permission of SEBI to continue to buy, sell or deal in securities in any stock exchange; and
- (d) he should be authorised in writing, by a stock-broker being a member of a stock exchange for affiliating himself in buying, selling or dealing in securities.

The applicant sub-broker should submit the required documents to the stock exchange with the recommendation of a trading member. After verifying the documents, the stock exchange may forward the documents of the applicant sub-broker to SEBI for registration. A sub-broker can trade in that capacity after getting himself registered with SEBI. The Exchange may not forward the application of the sub-broker to SEBI for registration if the applicant dealt with fake, forged, stolen, counterfeit etc. shares and securities in the market.

### ***2.7.3 Cancellation of Registration***

In case a trading member / sub-broker intends to cancel the registration as a sub-broker, the sub-broker is required to submit the original SEBI Registration certificate through their affiliated trading member. While applying for cancellation of registration, the affiliated trading member needs to give a public notification to this effect.

## **2.8 Broker-Clients Relations**

### ***2.8.1 Client Registration Documents***

The trading member (TM) is required to enter into an agreement in the specified format provided by NSE with the client before accepting orders on latter's behalf. The agreement is executed on non-judicial stamp paper of adequate value, duly signed by both the parties on all the pages. Copy of the agreement has to be kept with the TM permanently. The agreement should contain all the clauses mentioned in Uniform Documentary Requirement (UDR). Stock broker may incorporate any additional clauses in these documents provided these are not in conflict with any of the clauses in the model document, and also the rules, regulations, articles, byelaws, circulars, directives and guidelines. There should be segregation of mandatory and voluntary documents/clauses pertaining to client registration in separate docket (compilation of documents). In case of internet trading, in addition to clauses mentioned in UDR, the client has to mention clauses pertaining to internet trading.

Under “Know Your Client (KYC)” requirements, the TM should seek information such as: investor risk profile, financial profile, investor identification details, address details, income, PAN number, employment, age, investments experience, trading preference. The TM has to obtain recent passport size photograph (photographs of partners/whole time directors, individual promoters holding 5% or more, either directly or indirectly, in the shareholding of the company and of persons authorized to deal in securities, and of each of their clients in case of individual clients). The TM should also take proof of identification and address of the client. In-person verification should be done by the trading member’s staff, name & signature of the person doing the in-person verification together with the stamp of trading member should be there on the KYC form.

Under Member Constituent Agreement (MCA), trading members are required to make the constituent/clients aware of (a) trading segment to which TM is admitted, (b) particulars of SEBI registration number, (c) the precise nature of the trading member’s liability for business to be conducted, (d) basic risks involved in trading on the Exchange (equity and other instruments) including any limitations on the liability and the capacity in which the trading member acts.

In order to assess the risk involved in trading, TM is required to issue Risk Disclosure Document (RDD)<sup>4</sup> in such format, as may be prescribed by the Exchange from time to time and should obtain the same from his constituents duly signed.

A stock-broker should not deal knowingly, directly or indirectly, with a client who defaults to another stock-broker. There is no limit on the number of clients for a TM.

Copy of the client registration documents is required to be sent to the clients. Trading member must ensure periodic review of client’s financial information & client database.

### ***2.8.2 Unique Client Code (UCC)***

SEBI has made it mandatory for all trading members/brokers to use unique client codes for all clients. Brokers are required to collect and maintain the Permanent Account Number (PAN) allotted by Income Tax Department for all their clients.

Brokers should verify the documents with respect to the unique code and retain a copy of the document. They are also required to provide the PAN and UCC of their clients to the stock exchanges/clearing corporations and these details have to be updated before placing orders for the clients. The stock exchanges are also required to maintain a database of client details submitted by brokers.

---

<sup>4</sup> The said documents are to be obtained as per Exchange circular NSE/INSP/5387 dt. 27-Aug-04

### **2.8.3 Margins from the Clients**

Members should have a prudent system of risk management to protect themselves from client default. Margins are an important element of such a system. The policy of risk management addressing the margin requirements should be well documented and be made accessible to the clients and the stock exchanges. In capital market segment, however, the quantum of these margins, the form and the mode of collection are left to the discretion of the members<sup>5</sup>. The margin so collected is kept separately in the client bank account/client beneficiary account. In case of default, they are utilized for making payment to the clearing corporation for margin and settlement with respect to that client.

### **2.8.4 Execution of Orders**

Where the constituent requires an order to be placed or any of his order to be modified after the order has entered the system but has not been traded, the trading member may, if it so desires, obtain order placement/modification details in writing from the constituent. The trading member should accordingly provide the constituent with the relevant order confirmation/ modification slip or copy thereof, forthwith, if so required by the constituent.

Where the constituent requires any of his orders to be cancelled after the order has been entered in the system but has not been executed, the trading member may, if it so desires, obtain the order cancellation details in writing from the constituent. The trading member should accordingly provide the constituent with the relevant order cancellation details, forthwith, if so required by the constituent. The trading member may, if it so desires, obtain in writing, the delivery and payment requirement in any instructions of an order that it receives from the constituent.

Where a trading member receives a request for order modification or order cancellation from the constituent, it should duly bring it to their notice that if the total order results in a trade in the meantime, the requests for modification or cancellation cannot be executed.

### **2.8.5 Contract Note**

Contract note is a confirmation of trade(s) done on a particular day for and on behalf of a client. A stock-broker should issue a contract note to his clients for trades (purchase/sale of securities). The contract note should contain name and address (registered office address as well as dealing office address) of the TM, the SEBI registration number of the TM, details of trade viz. order number, trade number, order time, trade time, security name, quantity, trade price, brokerage, settlement number and details of other levies.

---

5 SEBI/MRD/DoP/SE/Cir-07/2005 dated February 23, 2005

As per Regulation 18 of SEBI (Stock-Brokers & Sub-Brokers) Regulations, 1992, the TM should preserve the duplicate copy of the contract notes issued for a minimum of five years. The TM should ensure that:

- (a) Contract note is issued to a client within 24 hours and should be signed by the trading member or by an authorized signatory trading member.
- (b) Contract notes are in the prescribed format<sup>6</sup>.
- (c) Stamp duty is paid,
- (d) All statutory levies are shown separately in the contract note

#### **2.8.6 Payments/Delivery of Securities to the Clients**

Every TM should make payments to his clients or deliver the securities purchased within one working day of pay-out unless the client has requested otherwise.

#### **2.8.7 Brokerage**

The maximum brokerage chargeable by TM in respect of trades effected in the securities admitted to dealing on the CM segment of the Exchange is fixed at 2.5% of the contract price, exclusive of statutory levies. This maximum brokerage is inclusive of sub-brokerage. The brokerage should be indicated separately from the price, in the contract note. The TM may not share brokerage with a person who is a TM or in employment of another TM.

For example: If a client has sold 10000 shares of a scrip @ Rs. 50, what is the maximum brokerage that the client can be charged?

In this case, the maximum brokerage = brokerage rate\*value of the transaction

$$= 2.5 \% * (10000 \text{ shares} * \text{Rs. } 50) = \text{Rs. } 12,500$$

#### **2.8.8 Segregation of Bank Accounts**

The TM should maintain separate bank accounts for client's funds and own funds. It is compulsory for all TMs to keep the money of the clients in a separate account and their own money in a separate account. Funds should be transferred from the client account to the clearing account for the purpose of funds pay-in obligations on behalf of the clients and vice-versa in case of funds pay-out. No payment for transaction in which the TM is taking position as a principal is allowed to be made from the client's account.

---

<sup>6</sup> As per circular NSE/LEGL/7036 dated January 05, 2006 in Cash Market segment

### **2.8.9 Segregation of Demat (Beneficiary) Accounts**

The trading members should keep the dematerialised securities of constituents in a separate beneficiary account distinct from the beneficiary account maintained for holding their own dematerialised securities. No delivery towards the own transactions of the trading members is allowed to be made from the account meant for constituents. For this purpose, every trading member is required to open a beneficiary account in the name of the trading member exclusively for the securities of the constituents (to be referred to as "constituents' beneficiary account"). A trading member may keep one consolidated constituents' beneficiary account for all its constituents or different accounts for each of its constituents as it may deem fit.

## **2.9 Sub-Broker-Clients Relations**

### **2.9.1 Relationship with clients**

A sub-broker is required to enter into a tripartite agreement with its clients and the stock broker specifying the scope of rights and obligations of the sub-broker, the stock broker and such client of the sub-broker as per the format prescribed by SEBI for dealing in securities in cash segment. There should be privacy of contract between the stock broker and the sub-broker's client. A separate agreement has to be executed for each Exchange.

Sub-broker is required to help the client in redress of grievance in respect of transactions executed through its associated broker. Sub-broker is also required to assist and co-operate in ensuring faster settlement of any arbitration proceeding arising out of the transaction entered through its associated broker and is jointly/severally liable to implement the arbitration award.

A sub-broker should provide assistance to stock broker and clients to reconcile their accounts at the end of each quarter with reference to all the settlements where payouts have been declared during the quarter.

### **2.9.2 Contract notes**

A stock broker should issue contract note as per the format prescribed by the Exchange to client introduced through a sub-broker. A sub-broker should render necessary assistance to its client in obtaining the contract note from the stock broker. Sub-broker should not issue any contract note or confirmation memo to its client.

### **2.9.3 Securities/ Funds**

Transactions in securities executed on behalf of a client introduced through the sub-broker should be settled by delivery/ payment between the stock broker and the client directly, in accordance of the rules, regulations and byelaws of the Exchange and such settlements should not take place through sub-broker. Delivery of securities and payment of funds relating

to the transactions of a client introduced by the sub-broker should be directly between the stock broker and the client of the sub broker.

## **2.10 Investor Service Cell and Arbitration**

Investor complaints received against the trading members / companies in respect of claims/ disputes for transactions executed on the Exchange are handled by the Investor Service Cell (ISC). The complaints are forwarded to the trading members for resolution and seeking clarifications. The ISC follows-up with the trading members and makes efforts to resolve the complaint expeditiously. In certain cases, on account of conflicting claims made by the investor and the trading member, when it is not possible to administratively resolve the complaint, investors are advised to take recourse to the arbitration mechanism prescribed by the Exchange.

Arbitration, which is a quasi judicial process, is an alternate dispute resolution mechanism prescribed under the Arbitration and Conciliation Act, 1996. The Exchange bye-laws prescribe the provisions in respect of arbitration and the procedure therein has been prescribed in the regulations. The reference to arbitration should be filed within six months from the date when the dispute arose. The time taken by the ISC is excluded by the arbitrator, while considering the issue of limitation.

## **2.11 Code of Advertisement**

Trading Members of the Exchange while issuing advertisements in the media have to comply with the Code of Advertisement prescribed by the Exchange. In pursuance of that, a copy of an advertisement has to be submitted to the Exchange to get a prior approval before its issue in publication/media. The trading members may apply for approval of advertisement as per the application format. Trading Members not complying with the Code of Advertisement may have to face disciplinary proceedings.

The code of Advertisement is as follows:

1. The term advertisement as referred in this code means and includes any document, pamphlets, circulars, brochures, notice or any research reports, material published, or designed for use in a newspaper, magazine or other periodical, radio, television, telephone or tape recording, video tape display, signs or bill boards, motion pictures, telephone directories (other than routine listings) or other public media, whether in print or audio visual form.
2. The Trading Member should designate and authorise a person to ensure the correctness of the information given in any advertisement.



3. The Trading Member issuing any such advertisement should inform the name of such authorized person to the Exchange.
4. The advertisement should be related to the nature of services that the Trading Member can offer. If the Trading Member is engaged in any other business then any advertisement if permissible for such business should not indicate the name of the Trading Member as a member of the Exchange.
5. The advertisement should be written in clear language and should not be such which may prejudice interest of the investors in general.
6. The advertisement should not contain any confusing, misleading or offensive information.
7. It should be free from inaccuracies.
8. The advertisement should not contain a recommendation regarding purchase or sale of any particular share or security of any company. It should not make any promise including guaranteeing of any return to the investing public.
9. The material should not contain anything that is otherwise prohibited.
10. The Advertisement shall contain :-
  - a. Name and/or his logo, code of National Stock Exchange membership.
  - b. Registration No. allotted by the Securities and Exchange Board of India.
11. The Advertisement may be issued individually or jointly with other Trading Members provided that the Trading Member shall not allow its name to be advertised or caused to be published in the advertisement of other Trading Members, unless such advertisement is issued by it.
12. In the event of suspension of any Trading Member by the Exchange, the Trading Member so suspended shall not issue any advertisement either singly or jointly with any other Trading Member, during the period of suspension.
13. In the event of any proceeding/action initiated against a Trading Member by a regulatory body other than National Stock Exchange, National Stock Exchange reserves the right to direct the Trading Member to refrain from issuing any advertisement for such a period as it may deem fit.
14. National Stock Exchange reserves the right to call for the advertisement and/or such other information/explanation as it may require, after the publication of the said advertisement. National Stock Exchange shall have 'cease and desist' powers in this behalf.

15. The copy of such advertisement should be retained for a period of three years.
16. A copy of the advertisement must be submitted to the Exchange within seven days before their issue. If the advertisement is found to violate any provisions of the Rules and Bye-laws of the Exchange or rules framed by the SEBI on this behalf, the Trading Member shall be subject to disciplinary proceedings by the Exchange.
17. These norms will apply to any other investment/consultancy agencies associated with the Trading Member concerned.
18. The above norms shall also apply to an advertisement, T.V or Cable T.V. or any other such media of audio/visual nature.
19. The Trading Members should check with the Exchange in case of any doubt for advice prior to the issue of any such material or advertisement.
20. The advertisement should not have any adverse reference regarding the reputation of any other Trading Members and also of the Exchange. While preparing any advertisement a Trading Member should keep in mind that any information if found to be incorrect will affect not only the reputation of the particular Trading Member but also the reputation of the Trading Members of the Exchange in general and also on the Exchange itself.
21. In the event of any Trading Member of the Exchange having any grievance against any other Trading Member, consequent upon the publication of advertisement of the other Trading Member, the Exchange shall be informed of the same in writing, within a period of seven days from the date of such publication for necessary remedial measure from the Exchange.

SEBI has advised the stock exchanges to ensure that their brokers/sub-brokers do not advertise their business, including in their internet sites, by subsidiaries, group companies etc., in prohibition of code of conduct<sup>7</sup>. The code of conduct in the regulations require a stock broker/ sub-broker not to advertise his business publicly unless permitted by the stock exchange and not to resort to unfair means inducing clients from other stock brokers.

---

7. As specified in the Schedule II of the SEBI (Stock Brokers and Sub-brokers) Regulations, 1992 (SEBI circular Ref. No. SMDRP/Policy/Cir-49/2001 Dated October 22, 2001)

# CHAPTER 3: TRADING

## 1.2 Introduction

In the past, the trading on stock exchanges in India was based on open outcry system. Under the system, brokers assemble at a central location usually the exchange trading ring, and trade with each other. This was time consuming, inefficient and imposed limits on trading volumes and trading hours. In order to provide efficiency, liquidity and transparency, NSE introduced a nation-wide on-line, fully-automated screen based trading system (SBTS). Under this system a trading member can punch into the computer, the number of securities and the prices at which he would like to transact. The transaction is executed as soon as it finds a matching sell or buy order from a counter party. See Box no. 3.1 for advantages of SBTS. This system was readily accepted by market participants and in the very first year of its operation, NSE became the leading stock exchange in the country.

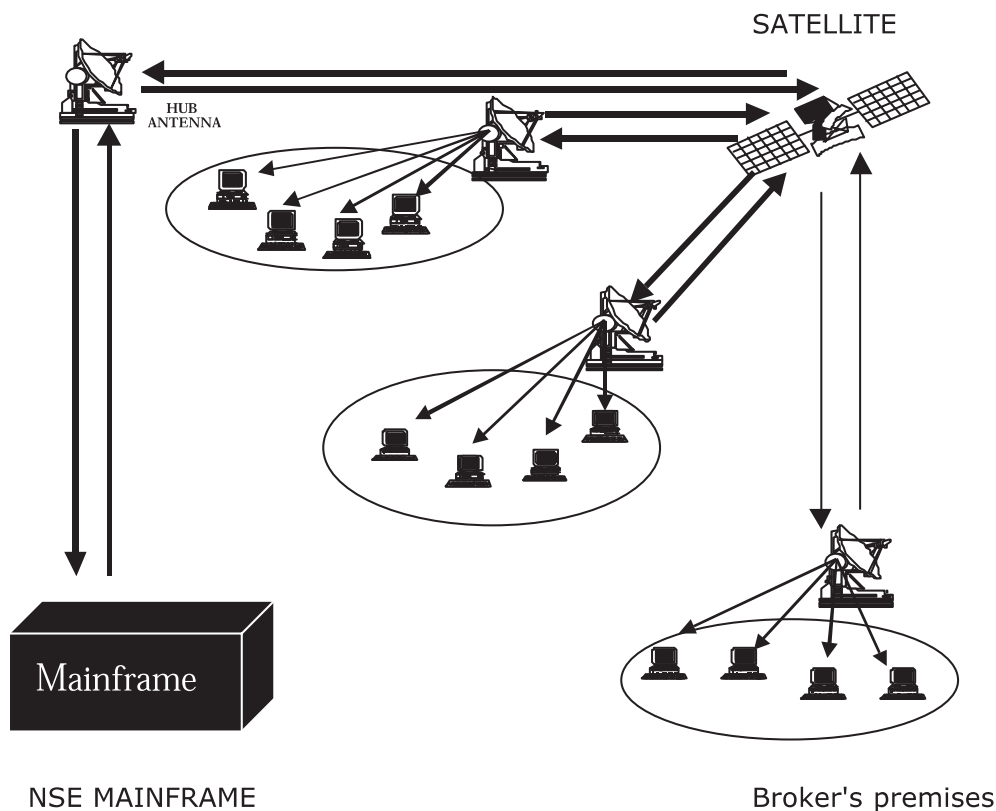
Technology has been used to carry the trading platform from the trading hall of stock exchanges to the premises of brokers. NSE carried the trading platform further to the PCs at the residence of investors through the Internet. This made a huge difference in terms of equal access to investors in a geographically vast country like India.

The trading network is depicted in Figure 3.1. NSE has a main computer which is connected through Very Small Aperture Terminal (VSAT) installed at NSE office. The main computer runs on a fault tolerant STRATUS mainframe computer at the Exchange. Brokers have terminals (identified as the PCs in the Figure 3.1) installed at their premises which are connected through VSATs/leased lines/modems.

### **Box 3.1: Advantages of the Screen-Based Trading System (SBTS)**

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

## Satellite



**Figure 3.1: Trading Network**

An investor informs a broker to place an order on his behalf. The broker enters the order through his personal computer and sends signal to the Satellite via VSAT/leased line/modem. The signal is directed to a mainframe computer at NSE via VSAT at NSE's office. A message relating to the order activity is broadcast to the respective member. The order confirmation message is immediately displayed on the PC of the broker. This order matches with the existing passive order(s), otherwise it waits for the active orders to enter the system. On order matching, a message is broadcast to the respective member.

The trading system operates on a strict price time priority. All orders received on the system are sorted with the best priced order getting the first priority for matching i.e., the best buy orders match with the best sell order. Similar priced orders are sorted on time priority basis, i.e. the one that came in early gets priority over the later one. Orders are matched automatically by the computer keeping the system transparent, objective and fair. Where an order does not find a match, it remains in the system and is displayed to the whole market, till a fresh order comes in or the earlier order is cancelled or modified. The trading system provides tremendous flexibility to the users in terms of kinds of orders that can be placed on the system. Several time-related (immediate or cancel), price-related (buy/sell limit and stop loss orders) or volume related (disclosed quantity) conditions can be easily built into an order. The

trading system also provides complete market information on-line. The market screen at any point of time provides complete information on total order depth in a security, the five best buys and sells available in the market, the quantity traded during the day in that security, the high and the low, the last traded price, etc. Investors can also know the fate of the orders almost as soon as they are placed with the trading members. Thus, the National Exchange for Automated Trading (NEAT) system provides an Open Electronic Consolidated Limit Order Book (OECLOB).

Limit orders are orders to buy or sell shares at a stated quantity and price. If the price-quantity conditions do not match, the limit order will not be executed. The term 'limit order book' refers to the fact that only limit orders are stored in the book and all market orders are crossed against the limit orders sitting in the book. Since the order book is visible to all market participants, it is termed as an 'Open Book'.

### **3.2 NEAT System**

NSE is the first exchange in the world to use satellite communication technology for trading. Its trading system, called National Exchange for Automated Trading (NEAT), is a state-of-the-art client server based application. At the server end all trading information is stored in an in memory database to achieve minimum response time and maximum system availability for users. It has uptime record of 99.7%. For all trades entered into NEAT system, there is uniform response time of less than one second. The NEAT system supports an order driven market, wherein orders match on the basis of time and price priority. All quantity fields are in units and prices are quoted in Indian Rupees. The regular lot size and tick size for various securities traded is notified by the Exchange from time to time.

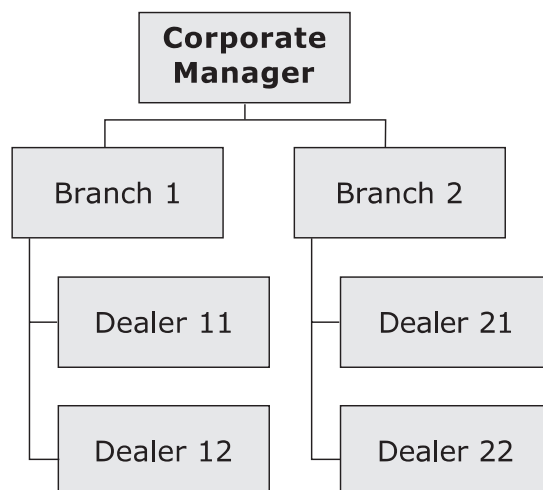
### **3.3 Market Types**

The Capital Market system has four types of market:

- (i) Normal Market: Normal market consists of various book types in which orders are segregated as Regular Lot Orders, Special Term Orders, and Stop Loss Orders depending on the order attributes.
- (ii) Auction Market: In the auction market, auctions are initiated by the exchange on behalf of trading members for settlement related reasons. The main features of this market are detailed in a separate section (3.13) on auction.
- (iii) Odd Lot Market: The odd lot market facility is used for the Limited Physical Market and for the Block Trades Session. The main features of the Limited Physical Market are detailed in a separate section (3.14). The main features of the Block Trades Session are detailed in a separate section (3.15).

### 3.4 Trading System Users Hierarchy

The trading member has the facility of defining a hierarchy amongst its users of the NEAT system. This hierarchy is depicted in Figure 3.2.



**Figure 3.2: Trading System users hierarchy**

The users of the trading system can logon as either of the user type. The significance of each type is explained below:

- (i) **Corporate Manager:** The corporate manager is a term assigned to a user placed at the highest level in a trading firm. Such a user receives the end-of-day reports for all branches of the trading member. The facility to set branch order value limits and user order value limits is available to the corporate manager. He can view outstanding orders and trades of all users of the trading member and can also cancel/modify outstanding orders of all users of the trading member.
- (ii) **Branch Manager:** The branch manager is a term assigned to a user who is placed under the corporate manager. The branch manager receives end-of-day reports for all the dealers under that branch. He can set user order value limit for each of his branch. He can view outstanding orders and trades of all users of his branch and can also cancel/modify outstanding order of all users of his branch.
- (iii) **Dealer:** Dealers are users at the lowest level of the hierarchy. A dealer can view and perform order and trade related activities only for himself and do not have access to information on other dealers under either the same branch or other branches.

### 3.5 Local Database

The local database provides a faster response time to the users. All inquiries made by a user for own orders/trades are serviced through the local database. If however, a corporate

manager or branch manager makes inquiries for orders of any dealer/branch manager of the trading firm, then the inquiry is serviced by the host. The data stored in the local database include system messages, security related information and order/trade related data of the user.

### **3.6 Market Phases**

The trading system is normally made available for trading on all days except Saturdays, Sundays and other holidays. Holidays are declared by the Exchange from time to time. A trading day typically consists of a number of discrete stages as below:

- (i) Opening: The trading member can carry out the following activities after login to the NEAT system and before the market opens for trading:
  - (a) Set up Market Watch (the securities which the user would like to view on the screen)
- (ii) Pre-open: The pre-open session is for a duration of 15 minutes i.e. from 9:00 am to 9:15 am. The pre-open session is comprised of Order collection period and order matching period.

The order collection period of 8\* minutes shall be provided for order entry, modification and cancellation. (\* - System driven random closure between 7th and 8th minute). During this period orders can be entered, modified and cancelled.

The information like Indicative equilibrium / opening price of scrip, total buy and sell quantity of the scrip is disseminated on the NEAT Terminal to the members on real time basis.

Indicative NIFTY 50 Index value & % change of indicative equilibrium price to previous close price are computed based on the orders in order book and are disseminated during pre-open session.

Order matching period starts immediately after completion of order collection period. Orders are matched at a single (equilibrium) price which will be open price. The order matching happens in the following sequence:

- Eligible limit orders are matched with eligible limit orders
- Residual eligible limit orders are matched with market orders
- Market orders are matched with market orders

### Equilibrium price determination

In a call auction price mechanism, equilibrium price is determined as shown below. Assume that NSE received bids for particular stock xyz at different prices in between 9.00 am & 9:07/08 am. Based on the principle of demand supply mechanism, exchange will arrive at the equilibrium price - price at which the maximum number of shares can be bought / sold. In below example, the opening price will be 105 where maximum 27,500 shares can be traded.

Share Price	Order Book		Demand/Supply schedule		Maximum tradable Quantity
	Buy	Sell	Demand	Supply	
100	13500	11500	50500	11500	11500
104	9500	9500	37000	21300	21300
105	12000	15000	27500	36300	27500
106	6500	12000	15500	48300	15500
107	5000	12500	9000	60800	9000
108	4000	8500	4000	69300	4000

During order matching period, order modification, order cancellation, trade modification and trade cancellation is not allowed. The trade confirmations are disseminated to respective members on their trading terminals before the start of normal market. After completion of order matching there is a silent period to facilitate the transition from pre-open session to the normal market. All outstanding orders are moved to the normal market retaining the original time stamp. Limit orders are at limit price and market orders are at the discovered equilibrium price. In a situation where no equilibrium price is discovered in the pre-open session, all market orders are moved to normal market at previous day's close price or adjusted close price / base price following price time priority. Accordingly, Normal Market and Odd lot Market opens for trading after closure of pre-open session i.e. 9:15 am. Block Trading session is available for the next 35 minutes from the open of Normal Market.

The opening price is determined based on the principle of demand supply mechanism. The equilibrium price is the price at which the maximum volume is executable. In case more than one price meets the said criteria, the equilibrium price is the price at which there is minimum unmatched order quantity. In case more than one price has same minimum order unmatched quantity, the equilibrium price is the price closest to the previous day's closing price. In case the previous day's closing price is the mid-value of pair of prices which are closest to it, then the previous day's closing price itself will be taken as the equilibrium price. In case of



corporate action, previous day's closing price is adjusted to the closing price or the base price.

Both limit and market orders

are reckoned for computation of equilibrium price. The equilibrium price determined in pre-open session is considered as open price for the day. In case if only market orders exists both in the buy and sell side, then order is matched at previous days close price or adjusted close price / base price. Previous day's close or adjusted close price / base price is the opening price. In case if no price is discovered in pre-open session, the price of first trade in the normal market is the open price.

- (iii) Normal Market Open Phase: The open period indicates the commencement of trading activity. To signify the start of trading, a message is sent to all the trader workstations. The market open time for different markets is notified by the Exchange to all the trading members. Order entry is allowed when all the securities have been opened. During this phase, orders are matched on a continuous basis. Trading in all the instruments is allowed unless they are specifically prohibited by the Exchange. The activities that are allowed at this stage are Inquiry, Order Entry, Order Modification, Order Cancellation (including quick order cancellation), Order Matching and Trade Cancellation.
- (iv) Market Close: When the market closes, trading in all instruments for that market comes to an end. A message to this effect is sent to all trading members. No further orders are accepted, but the user is permitted to perform activities like inquiries and trade cancellation.
- (v) Post-Close Market: This closing session is available only in Normal Market Segment. Its timings are from 3.40 PM to 4.00 PM. Only market price orders are allowed. Special Terms, Stop Loss and Disclosed Quantity Orders, Index Orders are not allowed. The trades are considered as Normal Market trades. Securities not traded in the normal market session are not allowed to participate in the Closing Session.
- (vi) Surcon: Surveillance and Control (SURCON) is that period after market close during which, the users have inquiry access only. After the end of SURCON period, the system processes the data for making the system available for the next trading day. When the system starts processing data, the interactive connection with the NEAT system is lost and the message to that effect is displayed at the trader workstation.

### **3.7 Logging On**

On starting NEAT application, the logon screen appears with the following detail:

- (i) User ID
- (ii) Trading Member ID
- (iii) Password

In order to sign on to the system, the user must specify a valid User ID, Trading Member ID and the corresponding password. A valid combination of User ID, Trading Member ID and the password is needed to access the system. Figure 3.3 shows screenshot of log on screen of NEAT CM.



**Figure 3.3: Logon Screen of NEAT CM Following are the details of the Log-on screen:**

- (h) User ID: Each trading member can have more than one user ID. The number of users allowed for each trading member is notified by the Exchange from time to time. Each user of a trading member must be registered with the Exchange and is assigned a unique user ID.
- (ii) Trading Member ID: The Exchange assigns a trading member ID to each trading member. The trading member ID is unique and functions as a reference for all orders/trades of different users. This ID is common for all the users of a particular trading member. The trading member ID and user IDs form a unique and valid combination. It is the responsibility of the trading member to maintain adequate control over the persons having access to user IDs. The trading member should request the Exchange for changes in names of the users of user ID, especially when there are changes in the users who are dealing on behalf of the trading member.

- (iii) Password: When a user logs in for the first time, he has to enter the default password 'Neat@CM1' provided by the exchange. On entering this password, the system requests the user to enter a new password in the 'New Password' field. On entering the new password, the system requests for confirmation of this new password. This new password is known to the user only. See box no. 3.2 for features of User ID and Password.

### **Box 3.2: Features of User ID and Password**

Location Specific User ID: Earlier, it was possible for the members having connectivity at more than one location to use the allotted user IDs interchangeably from either location. This gave rise to various systems security related problems. To reduce such potential risks associated with the member's workstation, the exchange assigns user ID to a specific location. So, whenever a user attempts to log on to the trader workstation, the system checks for a valid location for that user ID in the database at the host end.

Password:

- The password should contain minimum of six characters and maximum of eight characters in length. A combination of characters and numbers is allowed in the password.
- The password can be changed if the user desires so and a new password can be entered. The new password must be different from the old password.
- Password appears in the encrypted form and thus complete secrecy is maintained. The system ensures the change in password for all users (password expiry period is parameterized by the exchange).
- In the event of the user forgetting his password, the trading member is required to reset the password from his corporate manager user id. In case the corporate manager id is disabled then he is required to inform the exchange in writing, requesting to reset the password. The user password is reset to the default password set by the exchange. The user can login by entering a new password as per the procedure outlined above.
- When a user tries to login with a wrong password a message 'Invalid Sign on' is displayed. If three attempts are made by a user to log on with an incorrect password, then that user is automatically disabled. In case of such an event, the trading member is required to reset the password from his corporate manager user id. In case the corporate manager id is disabled then he is required to make a written request to the exchange for resetting of password. The user password is reset to the default password set by the exchange. The user can login by entering a new password as per the procedure outlined above.

### 3.8 Log Off/Exit from the Application

One can exit from the application as and when one desires before the surcon period. On invoking the log off screen, the following options are displayed to the user. Figure 3.4 shows screenshot of log off screen of NEAT CM.

- (i) Permanent Sign Off: As the name suggests, a user can log off permanently from the trading system by selecting this option. The user is logged off and the log on screen appears.
- (ii) Temporary Sign Off: Temporary sign off is a useful feature that allows the user to disallow the use of the trading software without actually logging off. During a temporary sign-off period, the application continues to receive all market updates in the background. The user, however, cannot enter orders or make inquiries. This allows the user to leave the trading system temporarily inactive and prevents unauthorized access to the system. On selecting the temporary sign off option, a password entry screen is displayed. The use of the NEAT system is enabled on entering the correct password. The temporary sign off is automatically activated when the user is inactive for a period of 5 minutes. The user has to enter the password to resume activities. If five attempts are made to sign on with an incorrect password, the user is permanently logged off. In this case the user has to log on again.
- (iii) Exit: On selection of this option, the user comes out of sign off screen.

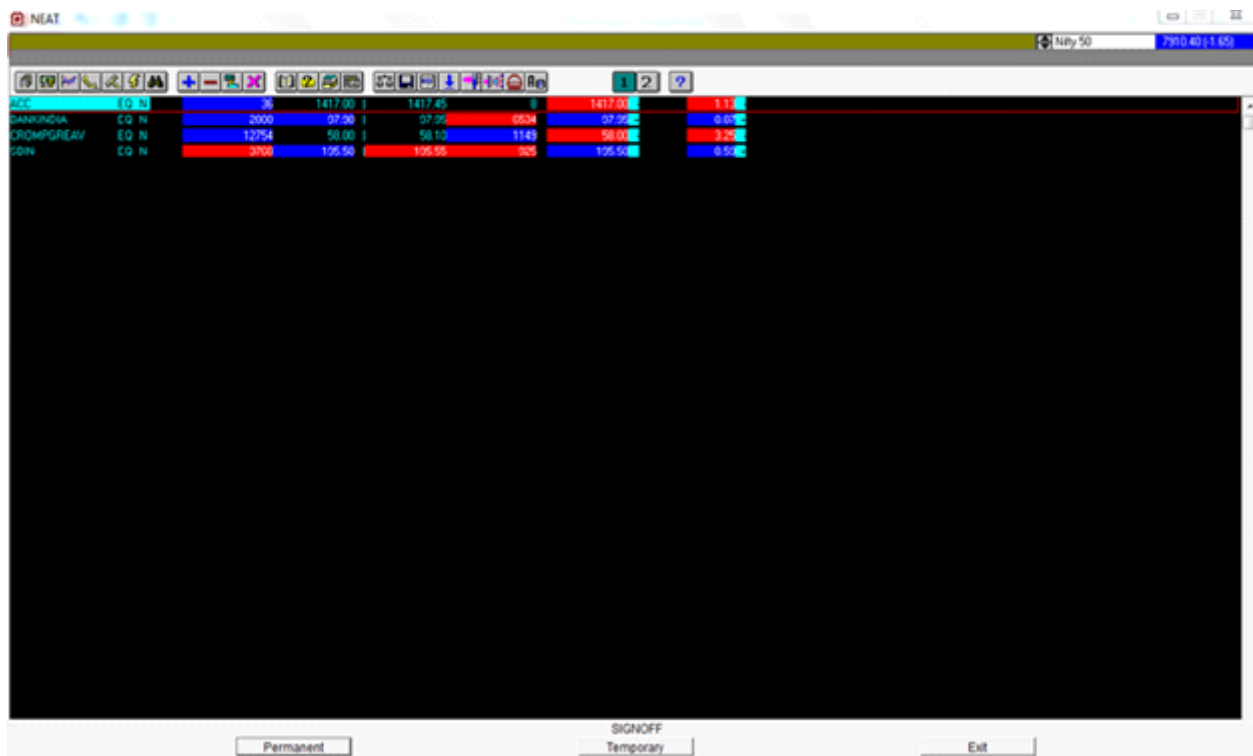


Figure 3.4 Logoff screen of NEAT CM

### 3.9 NEAT Screen

The trader workstation screen of the trading member is divided into the following windows:

- (i) Title bar: It displays trading system name i.e. NEAT, the trading member name the user id, user type, the date and the current time.
- (ii) Ticker Window: The ticker displays information of all trades in the system as and when it takes place. The user has the option of selecting the securities that should appear in the ticker. Securities in ticker can be selected for each market type. On the extreme right hand of the ticker is the on-line index window that displays the current index value of NSE indices namely Nifty 50, Nifty50 PR 1x Inverse, Nifty100 Liquid 15, Nifty Services Sector, Nifty Midcap 50, Nifty Dividend Opportunities 50, Nifty Free Float Smallcap 100, Nifty PSE, Nifty MNC, Nifty Infrastructure, Nifty FMCG, Nifty Energy, Nifty Bank, Nifty 100, Nifty50 TR 1x Inverse, Nifty 11-15 yr G-Sec Index, Nifty 200, India VIX, Nifty 15 yr and above G-Sec Index, Nifty Auto, Nifty Media, Nifty Quality 30, Nifty PSU Bank, Nifty Metal, Nifty 500, Nifty IT, Nifty Commodities, Nifty CPSE, Nifty Financial Services, Nifty Pharma, Nifty Midcap Liquid 15, Nifty Free Float Midcap 100, Nifty50 PR 2x Leverage, Nifty Next 50, Nifty India Consumption, Nifty Growth Sectors 15, Nifty 4-8 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec (Clean Price) Index, Nifty Composite G-Sec Index, Nifty50 TR 2x Leverage, Nifty50 Value 20, Nifty Realty, Nifty 8-13 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec Index, Nifty50 Dividend Points and Nifty Private Bank. The user can scroll within these indices and view the index values respectively. Index point change with reference to the previous close is displayed along with the current index value. The difference between the previous close index value and the current index value becomes zero when the Nifty closing index is computed for the day.

The ticker window displays securities capital market segments. The ticker selection facility is confined to the securities of capital market segment only. The first ticker window, by default, displays all the derivatives contracts traded in the Futures and Options segment.

- (iii) Tool Bar: The toolbar has functional buttons which can be used with the mouse for quick access to various functions such as Buy Order Entry, Sell Order Entry, Market By Price (MBP), Previous Trades (PT), Outstanding Order (OO), Activity Log (AL), Order Status (OS), Market Watch (MW), Snap Quote (SQ), Market Movement (MM), Market Inquiry (MI), Auction Inquiry (AI), Order Modification (OM), Order Cancellation (OCXL), Security List, Net Position, Online Backup, Supplementary Menu, Index Inquiry, Index Broadcast and Help. All these functions are also accessible through the keyboard.

- (iv) **Market Watch Window:** The 'Market Watch' window is the main area of focus for a trading member. This screen allows continuous monitoring of the securities that are of specific interest to the user. It displays trading information for the selected securities.
- (v) **Inquiry Window:** This screen enables the user to view information such as Market by Order (MBO), Market By Price (MBP), Previous Trades (PT), Outstanding Orders (OO), Activity Log (AL), Order Status (OS), Market Movement (MM), Market Inquiry (MI), Net Position, Online Backup, Index Inquiry, Indices Broadcast, Most Active Securities and so on. Relevant information for the selected security can be viewed.
- (vi) **Snap Quote:** The snap quote feature allows a trading member to get instantaneous market information on any desired security. This is normally used for securities that are not already set in the Market Watch window. The information presented is the same as that of the Market Watch window.
- (vii) **Order/Trade Window:** This window enables the user to enter/modify/cancel orders and to send request for trade cancellation and modification.
- (viii) **Message Window:** This enables the user to view messages broadcast by the exchange such as corporate actions, any market news, auctions related information etc. and other messages like order confirmation, order modification, order cancellation, orders which have resulted in quantity freezes/price freezes and the exchange action on them, trade confirmation, trade cancellation/modification requests and exchange action on them, name and time when the user logs in/logs off from the system, messages specific to the trading member, etc. These messages appear as and when the event takes place in a chronological order.

### **3.10 Invoking an Inquiry Screen**

All Inquiry screens have a selection where the security viewed can be selected. The screen shows the details of the security selected for that inquiry. The details for each inquiry screen are discussed below:

#### **3.10.1 Market Watch**

The Market Watch window is the third window from the top of the screen that is always visible to the user. The Market Watch is the focal area for users. The purpose of Market Watch is to setup and view trading details of securities that are of interest to users. For each security in the Market Watch, market information is dynamically updated. Following are the key features of Market Watch Screen:

- (i) **Market Information Displayed:** The one line market information displayed in the market watch screen is for current best price orders available in the Regular Lot book. For each security the following information is displayed:

- (a) the corporate action indicator "Ex/Cum"
- (b) the total buy order quantity available at best buy price
- (c) best buy price
- (d) best sell price
- (e) total sell order quantity available at best sell price
- (f) the last traded price
- (g) the last trade price change indicator and
- (i) the Percentage change from previous day's closing price'

If the security is suspended, 'SUSPENDED' appears in front of the security. If a question mark (?) appears on the extreme right hand corner for a security, it indicates that the information being displayed is not the latest and the system will dynamically update it.

- (ii) **Information Update:** In the Market Watch screen, changes in the best price and quantities are highlighted on a dynamic basis (in all pages of Market Watch). For example, if the best price changes as a result of a new order in the market, the new details are immediately displayed. The changed details are highlighted with a change of colour for a few seconds to signify that a change has occurred. The blue colour indicates that price/quantities have increased, while the red colour indicates that the price/quantities have decreased.

If the last traded price is higher than the previous last traded price then the indicator '+' appears or if the last traded price is lower than the previous last traded price then the indicator '-' appears. If there is no change in the last traded price, no indicator is displayed.

The list of securities that are available for trading on Capital Market segment is available in the Security List box. The user has the option to setup securities directly from the Security List without typing a single character on the market watch screen. This is a quick facility to setup securities. If the user tries to setup a security which is already present in the market watch one gets a message that the security is already setup. The user also has the option to add and delete the security set up in the market watch screen as many times as one desires. The user can print the contents of the Market Watch setup by the user. The user can either print the Market Watch on display or the Full Market Watch.

- (iii) **Market Watch Download:** A user has to set up securities after the first download of the software. After setting up the market watch, it is suggested that the user should log

out normally. This will help the user to save the freshly set up market watch securities in a file. If at any given time, when the user has freshly set up a few securities and encounters an abnormal exit, the newly set up securities are not saved and the user may have to repeat the process of setting up securities. The Market Watch setup is carried over to subsequent days, thus averting the need to set up the Market Watch on daily basis. During the logon stage, the relevant Market Watch details are downloaded from the trading system. The message displayed is 'Market Watch download is in progress'. The time taken for the Market Watch download depends on the number of securities set up.

- (iv) **Setting up Securities:** One of the best features of this software is that the user has the facility to set up 500 securities in the market watch. The user can view up to 30 securities in one page of the market watch screen.
- (v) **Easy Navigation:** The details of the current position in the Market Watch defaults in the order entry screen and the inquiry selection screen. It is therefore possible to do quick order entries and inquiries using this feature. The default details can also be overwritten.
- (vi) **Corporate Actions Indication:** An indicator for corporate actions for a security is another feature in market watch. The indicators are as follows:

'XD' - ex-dividend

'XB' - ex-bonus

'XI' - ex-interest

'XR' - ex-rights

'CD' - cum-dividend

'CR' - cum-rights

'CB' - cum-bonus

'CI' - cum-interest

'C\*' - in case of more than one of CD, CR, CB, CI

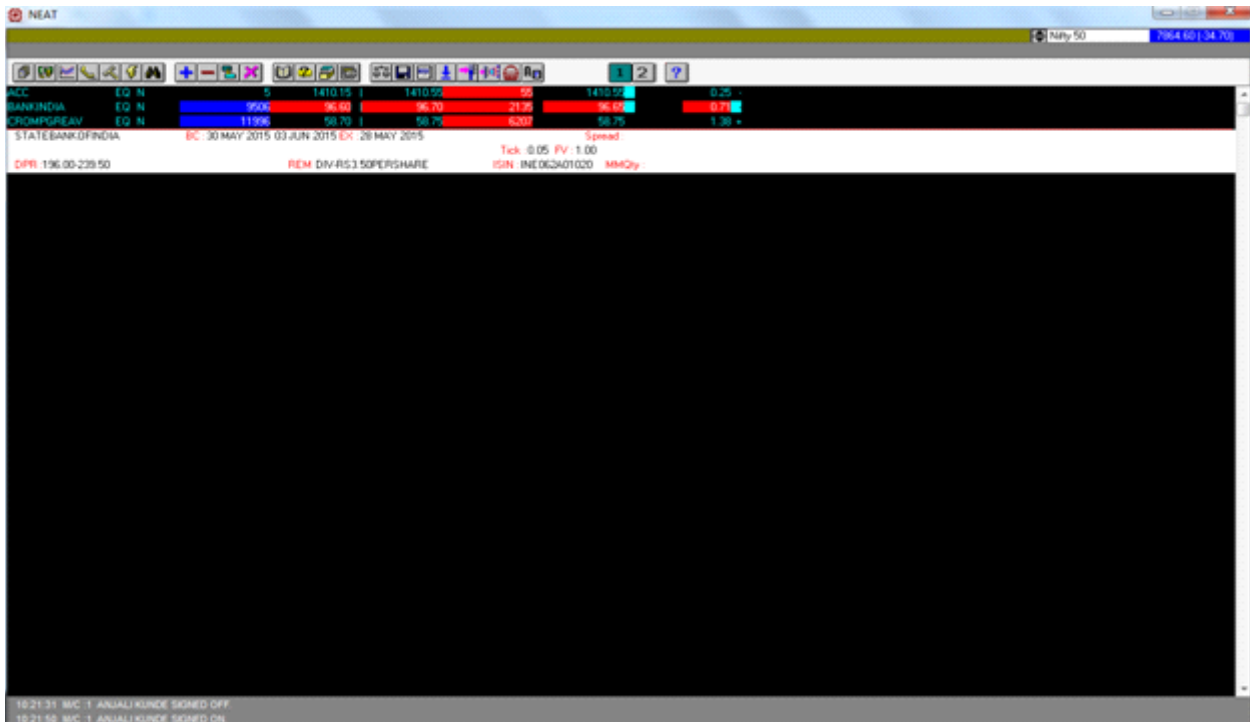
'X\*' - in case of more than one of XD, XR, XB, XI

### **3.10.2 Security Descriptor**

Information such as Security Name, Book Closure Start and End Dates, Ex-Date, No-Delivery Start and End Dates, Tick Size, daily price range, Face Value, ISIN and Remarks is displayed in the Security Descriptor. The label DPR i.e. Daily Price Range displays the permissible



price band for a security for the current trading day. Figure 3.5 shows screenshot of security descriptor window in NEAT CM.



**Figure 3.5: Security Descriptor in NEAT CM**

### 3.10.3 Market by Price

The purpose of Market by Price (MBP) is to enable the user to view outstanding orders in the market aggregated at each price and are displayed in order of best prices. Figure 3.6 shows screenshot of market by price window in NEAT CM.

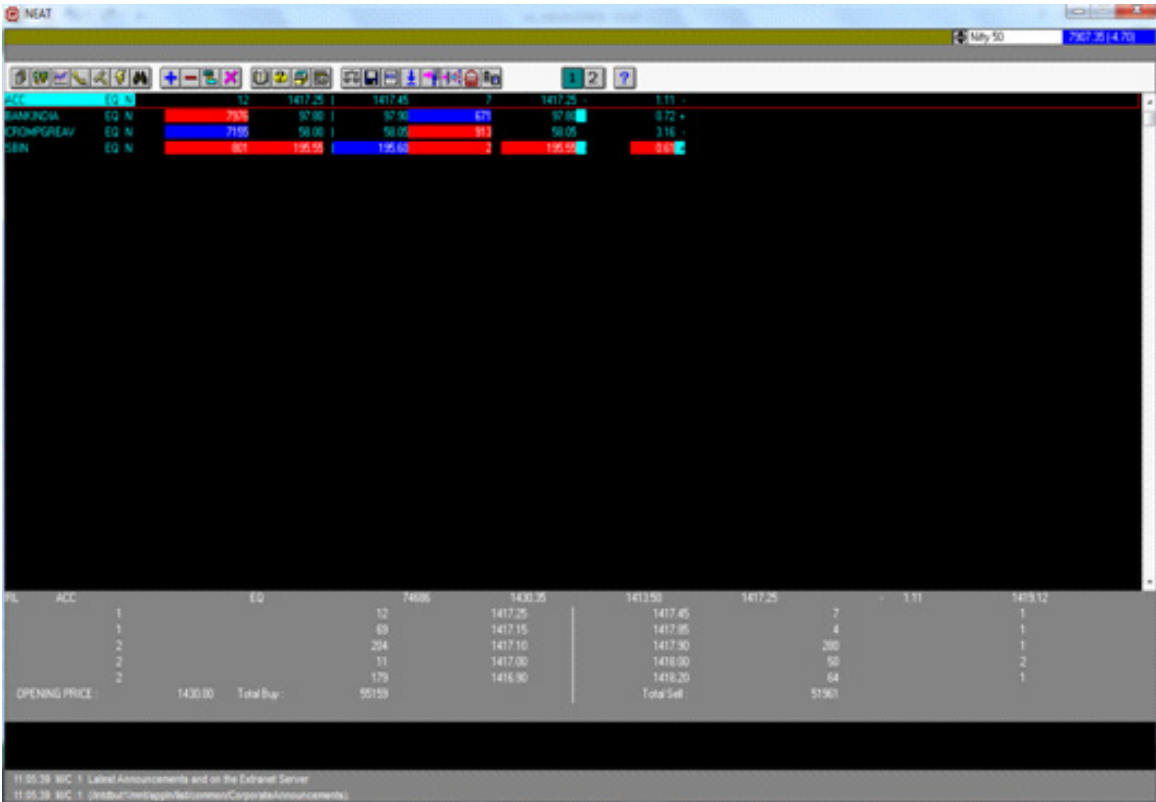
The fields that are available on the selection screen are Symbol, Series and Book Type. The option available in the book type field are Regular Lot.

The detailed MBP screen is split into First Line, Detail Line and Summary Line. The first line displays Market Type, Symbol, Series, Total Traded Quantity, Highest Trade Price, Lowest Trade Price, Last Trade Price, % Change in LTP from Previous Day Close and Average Traded Price. The detail line displays Number of Buy Orders, Total Buy Order Quantity at that price, Buy Order Price, Sell Order Price, Total Sell Order Quantity at that price and Number of Sell Orders. The summary line displays Total Buy Order Quantity and Total Sell Order Quantity. For special term orders, the terms are not reflected in the MBP screen. Buy orders are displayed on the left side of the window and sell orders on the right. The orders appear in a price/time priority with the "best priced" order at the top. When any Regular Lot information, currently displayed on the window, is changed (for example as the result of a trade), this information is automatically reflected in the MBP i.e. dynamic updation of MBP screen is present.

All buyback orders are identified by an '\*' in the MBP screen. In case a buyback order appears in the best five orders in the MBP an '\*' will precede such an order record. In addition, an '\*' will appear against the 'Total Buy' field in the MBP irrespective of the order being in best five orders in the MBP or not

#### Special Features of MBP

- (a) Regular lot & special term orders can be viewed in the MBP. The percentage change for last trade price with respect to previous day's closing price, open price (in case of pre-open indicative opening price), high price for a day, low price a day and the average trade price of the security in the given market are the additional fields in the screen.
- (b) No untriggered stop-loss order will be displayed on the MBP screen.
- (c) Only order details for the best 5 prices information is displayed.



**Figure 3.6: Market by Price window in NEAT CM**

#### 3.10.4 Previous Trades

The purpose of the Previous Trades window is to provide security-wise information to users for own trades. The fields that are available on the selection screen are Symbol, Series, Market type, Auction Number, Trading Member ID, Branch ID, Dealer, CLI, Buy/Sell and Time. The options available in the Market type field are Normal Market, Odd Lot and Auction. If the user selects the option to view Auction Market trade details, the auction number has to be

compulsorily entered. The Corporate Manager can view all the trades for all branches or for a specific branch. Under the specific branch, the user can view trade details for a specific dealer or for all dealers. The Branch Manager can view all details under that branch i.e. all previous trades for all dealers and for all clients or for all dealers or for a specific dealer. The dealer can view previous trades for own user id only. The user can select the previous trades up to a particular time period, by entering the relevant time in the time field.

The detailed Previous Trade screen information is split into First Line, Detail Line and Summary Line. The first line displays Market Type, Symbol, Series, Last Trade Price, Last Trade Quantity, Last Trade Time and Total Traded Quantity. The detail line contains Buy/Sell Indicator, PRO/CLI indicator (where P – PRO and C - CLI), Order Number, Trade Number, Trade Quantity, Trade Price and Trade Time. The summary line contains Total Number of Buy Trades, Total Buy Quantity Traded, Total Buy Traded Value, Average Buy Traded Price, Total Number of Sell Trades, Total Sell Quantity Traded, Total Sell Traded Value and Average Sell Traded Price. Previous Trade Screen displays the client account number also. Preopen Indicator is displayed as "P" for all Preopen Trades.

Trades are displayed in a reverse chronological order. First all buy trades are displayed and then sell trades are displayed. A facility is provided to users to view their trades for BUY side or SELL side or ALL by selecting the BUY/SELL/ALL filter in primary window. By default, the filter is on ALL. Once the query is executed with the filter, the trades are displayed with time sorting for the chosen filter option. This functionality only works for self and not for hierarchal inquiry.

#### Special Features of Previous Trades

- (a) Trade cancellation can be requested from the Previous Trade screen. This facility is available only for member's own trades. The Corporate Manager can request for trade cancellation for any branch or any dealer. The Branch Manager can request for trade cancellation for any dealer under that branch. The dealer can request for trade cancellation only for trades under that user id.
- (b) The user can request the Exchange to modify only the client code field. Currently trade modification facility is not enabled on trading system.

#### **3.10.5 Outstanding Orders**

The purpose of Outstanding Orders is to enable the user to view the outstanding orders for a security. An outstanding order is an order that has been entered by the user, but which has not yet been completely traded or cancelled. The user is permitted to see his orders.

The fields which are available on the selection screen are Symbol, Series, Book type, Auction

Number, Branch ID, Dealer, PRO/CLI and Time. The options available in the Book type field are Pre open, Regular Lot, Odd Lot, Stop Loss and Auction. If the user selects the option to view Auction Market trade details, the Auction Number has to be compulsorily entered. When the user selects Pre open book, in the detailed screen only pre open outstanding orders will be displayed. In the detailed screen, pre-open orders will have an Identifier 'P'.

The corporate manager can view all the Outstanding Orders for all branches or for a specific branch. Under the specific branch, the user can view Outstanding Orders details for a specific dealer or for all dealers. Similarly it is possible to view all Outstanding Orders for a particular client or for all clients under a dealer. The Branch Manager can view all Outstanding Orders details under that Branch i.e. all Outstanding Orders for all dealers and for all clients or for all dealers or for a specific dealer. The dealer can view Outstanding Orders for own user id only.

The detailed outstanding orders screen is split into First Line and Detail Line. The first line contains Symbol, Series, Market Type, Security Status, Label, Current Time and Current Date. The detail line contains Book Type, User ID, Client A/C Number, Order Number, Order Quantity Pending and Order Price.

The orders are listed on the basis of price/time priority. The orders are displayed in order of Regular Lot orders and then Stop Loss orders. Outstanding order screen is not dynamically updated, but the user has option to refresh the Outstanding Orders screen by reinvoking the inquiry.

#### Special Features of Outstanding Orders

- (a) The user can modify orders from the outstanding orders screen.
- (b) The user can cancel orders from the outstanding orders screen.
- (c) The user can view status of a particular order from the outstanding orders screen.

#### **3.10.6 Activity Log**

The Activity Log (AL) shows all the activities that have been performed on any order belonging to that user. These activities include order modification/cancellation, partial/full trade, and trade modification/cancellation. It displays information of only those orders in which some activity has taken place. It does not display those orders on which no activity has taken place.

The fields that are available on the selection screen are Symbol, Series, Market Type, Branch ID, Dealer, PRO/CLI and Client Account Number. The Symbol, Series and Market Type fields are compulsory. The options available in the Market Type field are Preopen, Normal Market, Odd Lot and Auction. A Preopen Identifier 'P' will be displayed for Preopen orders in Activity Log screen.

The detailed AL screen is split into first line and detail line. The first line displays Market Type, Symbol, Series, Current Time and Current Date. The detail line contains User Id, Order Number, PRO/CLI indicator (where P-PRO, C-CLI), Buy/Sell Indicator, Order quantity, Order price, Order Terms/Trade Number, Disclosed Quantity, MF Indicator, MF Quantity, Activity Indicator and Activity Time. One line appears for each activity that has taken place today. For example, if a buy order is traded against three separate sell orders, then the activity log for the buy order shows three separate lines and the original order details.

The following activities are displayed:

- B For buy orders, this indicates a match.
- S For sell orders, this indicates a match.
- OC This indicates an order was cancelled.
- OM This indicates an order was modified. The details displayed are the order after it was modified.
- TC For both buy and sell orders this indicates that a trade involving this order was cancelled.
- TM For both buy and sell orders this indicates that a trade involving this order was modified. Special terms associated with the order are displayed to help identify the order.

#### Special Features of Activity Log

- (a) The AL gives details of all activities in chronological orders.
- (b) Within the order number, the details appear with the oldest activity first and the latest last.
- (c) The activity consists only of orders entered by the requesting trading member.
- (d) This inquiry option is not available to users in inquiry mode.

#### **3.10.7 Order Status**

The purpose of the Order Status (OS) is to look into the status of one of dealer's own specific orders. The screen provides the current status of orders and other order details. The order status screen is not dynamically updated. In case the order is traded, the trade details are also displayed. In case of multiple trades the display is scrolled.

- To view the status of a particular order, enter the order number for which the order status is to be viewed in the selection screen of OS. The user has to enter the second part of the order number. If the user does not know the order number, then the user can position the highlight bar on the desired order on the Outstanding Order screen and

then invoke the OS screen. The order number is directly defaulted in the Order Status selection screen. Additionally if it is a preopen order then there will be an identifier 'P' with tool tip as "Preopen Identifier" indicating that it is a Preopen order.

The detailed OS screen is divided into three parts. The first part covers order related information, the second part covers the trade related information if the order has resulted in a trade and the third part gives summary details.

The first part details are in two lines. The first line gives Book Type, Symbol, Series, Order Number, Type (Buy/Sell), Total Order Quantity, Order Price, PRO/CLI, Client A/C Number and Participant ID. The second line gives Disclosed Quantity, MF/AON Indicator, MF Quantity, Trigger Price, Day, Indicator 1 (Order Modified - MOD), Indicator 2 (Order Cancelled - CXL) and Indicator 3 (Order Traded - TRD). The second part details are Trade Quantity, Trade Price, Trade Time and Trade Number. The third part details are Quantity Traded Today and Balance Quantity (remaining quantity).

#### *Special Features of Order Status*

- (a) The OS provides the user the current status of the order i.e. whether order has been modified, order was cancelled, order was traded, or order has been partially traded.
- (b) It shows all the order details. It also shows the trade details for each trade done against this order.
- (c) The data is presented in chronological order. One line appears for each activity that has taken place today.
- (d) The dealer can view order status of orders entered under that Dealer ID only.
- (e) This Inquiry option is not available to Users in Inquiry mode.

#### **3.10.8 Snap Quote**

The Snap Quote is a feature available in the system to get instantaneous market information on a desired security. This is normally used for a security that is not setup in the Market Watch window. The information displayed for the set up security is same as that in Market Watch window i.e. Corporate action indicator 'Ex/Cum', the total buy order quantity, best buy price, best sell price, total sell order quantity, last traded price, last trade price change indicator and the no delivery indicator 'ND'. The Snap Quote is displayed for the time specified by the exchange from time to time. The display position of Snap Quote is reserved and no other information overlaps it. A user can therefore simultaneously view a regular inquiry (e.g. MBP) and the Snap Quote display.

#### **3.10.9 Market Movement**

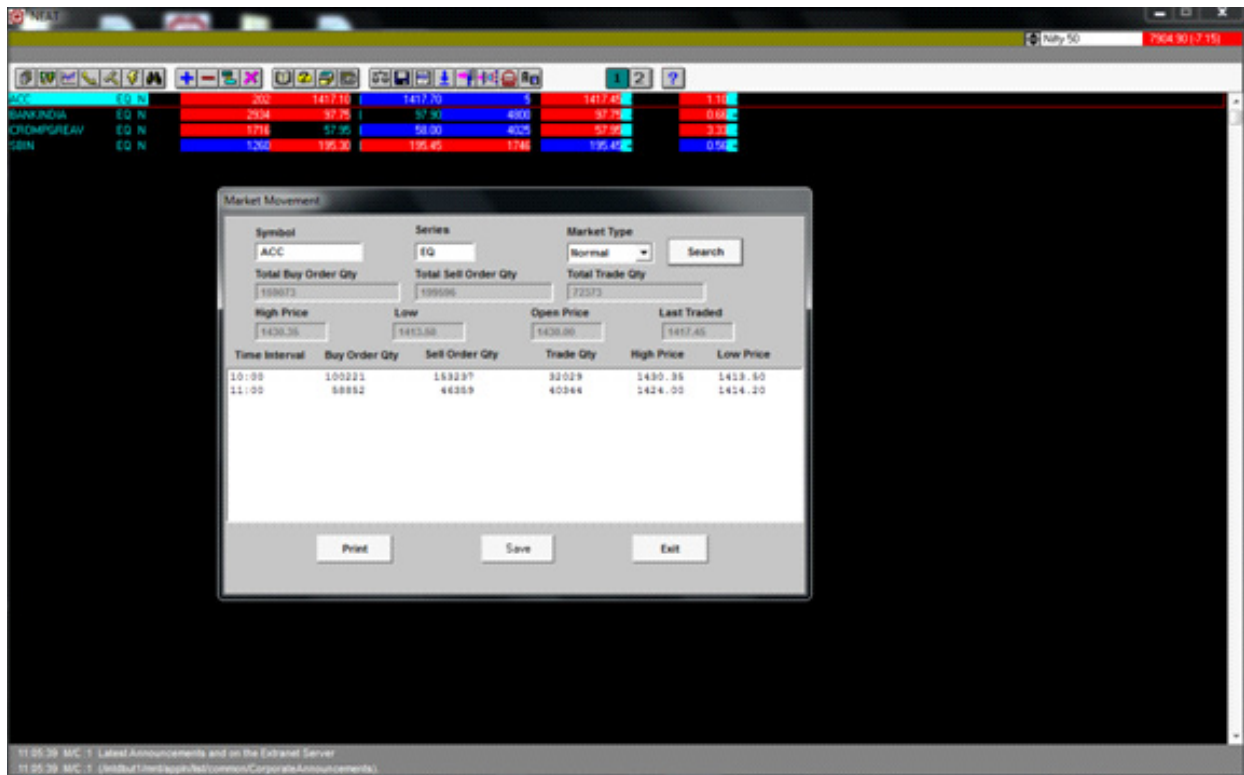
The purpose of the Market Movement screen is to provide information to the user regarding

the movement of a security for the current day. This inquiry gives the snap shot for a particular security for a time interval as parameterised by the exchange. The fields that are available on the selection screen are Symbol, Series and Market type. The user can select the Market Type as Normal Market and Odd Lot market. Figure 3.7 shows screenshot of market movement window in NEAT CM.

The detailed output screen is given in two parts. The first part gives information regarding the security for the entire day namely Symbol, Series, Market Type, Total Buy Order Quantity, Total Sell Order Quantity, Total Traded Quantity, High Price, Low Price, Open Price and Last Traded Price. The second part gives information for a particular time interval namely Time Interval, Buy Order Quantity, Sell Order Quantity, Traded Quantity, High Price and Low Price. The user can save the Market Movement screen by specifying the directory and file name to save the information. This file can be viewed in MSDOS editor.

### Special Features of Market Movement

- (a) The Market Movement screen provides information to the user regarding the movement of a security for the current day on orders/trades done today.
- (b) The information displayed is from the time the market was opened today and in chronological sequence.



**Figure 3.7: Market Movement window in NEAT CM**

### **3.10.10 Market Inquiry**

The purpose of the Market Inquiry is to enable the user to view the market statistics, for a particular market, for a security. It also displays the open price and previous close price for a security.

The fields that are available on the selection screen are Symbol, Series and Market type. The user can select market type as Normal and Odd Lot. The detailed output screen is given in two parts. The first line displays Symbol, Series, Security Status, Corporate Actions Indicator 1, Corporate Actions Indicator 2, Corporate Actions Indicator 3, Total Traded Quantity, 52 Week High and 52 Week Low. The second line displays Closing Price, Opening Price, High Price, Low Price, Last Traded Price and Net change from closing price. The third line displays Last Traded Quantity, Last Traded Time and Last Traded Date. The fourth line displays Best Buy Order Quantity, Best Buy Order Price, Best Sell Order Price and Best Sell Order Quantity.

#### **Special Features of Market Inquiry**

- (a) This screen is not dynamically updated. It displays the security status of the security selected. 'S' indicates that the security is suspended, 'P' indicates that the security is in pre open (only for normal market) and in absence of the above indicators the security is open for trading.
- (b) An indicator for corporate actions for a security is displayed on the screen. The indicators are as follows:

"CD" = cum-dividend	"XD" = ex-dividend
"CR" = cum-rights	"XR" = ex-rights
"CB" = cum-bonus	"XB" = ex-bonus
"CI" = cum-interest	"XI" = ex-interest
- (c) The net change indicator for last trade price with respect to the previous day's closing price and the net change percentage for the last trade price with respect to the previous day's closing price are displayed.
- (d) The base price of a security for the day is equal to the previous day's closing price of the security in normal circumstances. Thus, in the market inquiry screen the field indicating the closing price also gives the base price for the day.
- (e) If the base price is manually changed (due to a corporate action) then the market inquiry will not display the new base price in the closing price field.

### **3.10.11 Auction Inquiry**

The purpose of Auction Inquiry (AI) is to enable the users to view the auction activities for the current trading day. This window displays information about auctions currently going on and auctions that have been completed.



The detailed line in the auction inquiry screen displays: No. - Serial Number, St. - Status of the auction security, Type - Buy/Sell auction, Symbol, Series, Best Buy Qty, Best Buy Price, Best Sell Price, Best Sell Qty, Auction Qty, Auction Price and Settlement Period.

The following are the different status displayed for an auction security:

- S - Auction is in Solicitor Period
- M - System is matching the orders
- F - Auction is over
- X - Auction is deleted
- P - Auction is pending and yet to begin.

The user can view the auction details of a security setup in the market watch, by invoking the auction inquiry screen after highlighting the auction security. To view the auction details for all the securities, the user should blank out the contents of all the fields in the auction inquiry selection screen. To view the auctions after a particular number, the user should blank out the contents in Symbol & Series field and enter the number in the auction number field on the selection screen. The auction inquiry screen then displays all auctions from that number onwards. This window is dynamically updated. Figure 3.8 shows screenshot of auction enquiry window in NEAT CM.

The screenshot displays the NEAT CM Auction Inquiry window. The main table lists securities with columns for Symbol, Series, Status, and various price/quantity fields. The table is sorted by Symbol. At the bottom, there is a summary section showing 'Total Buy' and 'Total Sell' quantities and prices.

Symbol	Series	Status	Best Buy Qty	Best Buy Price	Best Sell Price	Best Sell Qty	Auction Qty	Auction Price	Settlement Period
CHPL	EQ N		100	201.25	201.40	100	201.25	2.1	
CHPTV	EQ N		3400	10.00	10.75	2000	10.25	1.01	
CHRGVDEY	EQ N		0	0.00	0.00	0	0.00	0.00	
CHDEND	EQ N		4175	144.35	144.45	25	144.35	0.70	
CHURTHDM	SM N		4000	69.50	73.50	4000	70.00	1.68	
CHURTHDM	EQ N		54	497.20	497.25	300	497.20	0.68	
CHURTHDM	SM N		3000	79.00	83.95	3000	80.00	2.37	
CHURTHDM	SM N		3000	79.00	83.95	3000	80.00	2.37	
CHURTHDM	EQ N		20	1000.45	1000.15	50	1000.45	0.69	
CHURTHDM	EQ N		2000	345.80	345.90	100	345.80	1.55	
CHURTHDM	EQ N		1400	82.70	82.75	6343	82.70	0.92	
CHURTHDM	EQ N		50	805.55	805.70	130	805.55	1.30	
CHURTHDM	EQ N		27	972.50	973.90	45	972.50	0.75	
CHURTHDM	EQ N		44	108.40	108.70	50	108.40	1.04	
CHURTHDM	SM N		3000	49.00	52.50	3000	52.30	0.00	
CHURTHDM	SM N		1200	95.05	103.00	1200	95.25	0.00	
CHURTHDM	SM N		0	0.00	96.00	2000	96.00	0.00	
CHURTHDM	EQ N		33	302.00	302.40	50	302.00	0.63	
CHURTHDM	EQ N		31	1262.20	1262.50	35	1262.50	2.62	
CHURTHDM	EQ N		1399	136.55	136.65	63	136.55	1.19	
CHURTHDM	SM N		0	0.00	96.00	2000	96.00	0.00	
CHURTHDM	EQ N		110	173.00	173.95	1050	173.00	1.30	
CHURTHDM	EQ N		526	878.45	878.50	27	878.45	0.45	
CHURTHDM	EQ N		2000	89.45	89.50	8750	89.45	0.75	
CHURTHDM	EQ N		200	250.90	251.25	400	250.90	1.40	
CHURTHDM	EQ N		6330	136.40	136.50	1913	136.40	0.70	
CHURTHDM	EQ N		6	237.10	237.50	44	237.10	2.14	
CHURTHDM	EQ N		37300	14.65	14.70	36075	14.65	1.01	
CHURTHDM	EQ N		31	215.50	215.65	12	215.50	0.06	
CHURTHDM	SM N		0	0.00	96.00	2000	96.00	0.00	

Summary:

Total Buy	90	Total Sell	90
-----------	----	------------	----

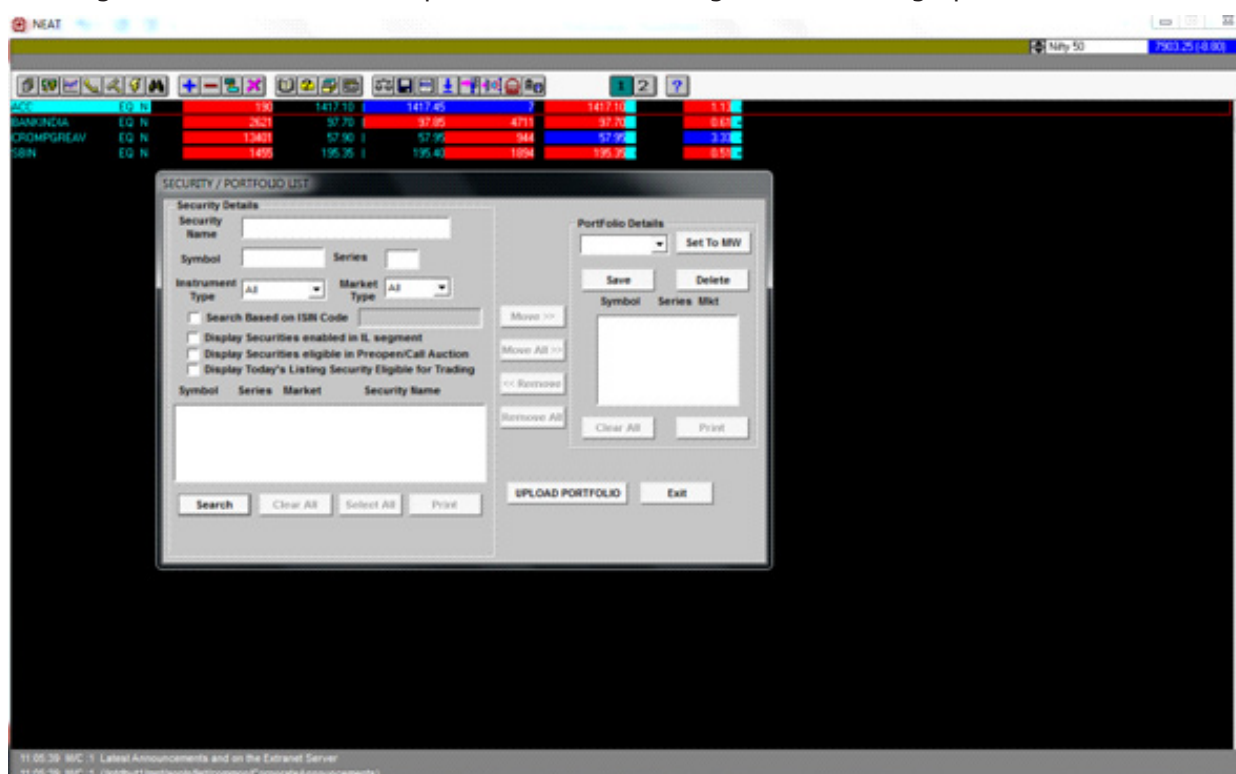
Change screen

**Figure 3.8: Auction Inquiry window in NEAT CM**

### 3.10.12 Security/Portfolio List

This is a facility for the user for setting up the securities in the market watch screen. This screen also has a new facility of allowing the user to setup his own portfolio. Figure 3.9 shows screenshot of security descriptor window in NEAT CM.

- (i) Security List: The user can select securities based on Symbol, Series, Instrument Type and Market Type. A blank/partial search for Symbol and Series is also possible. The Symbol, Series, Market Type and Security Name are displayed based on the selection criteria. The user can also print the selected securities.
- (ii) Portfolio List: Once the security is selected, the same can be used for setting up a portfolio. The user can give a name to the list so selected. The existing portfolio can be modified and/or removed. The user can also set-up a particular portfolio in market watch. Portfolio created can be used for basket order entry also. Order files can be generated based on the portfolio created using basket trading option.



**Figure 3.9: Security/Portfolio List window in NEAT CM**

### 3.10.13 Multiple Index Broadcast and Graph

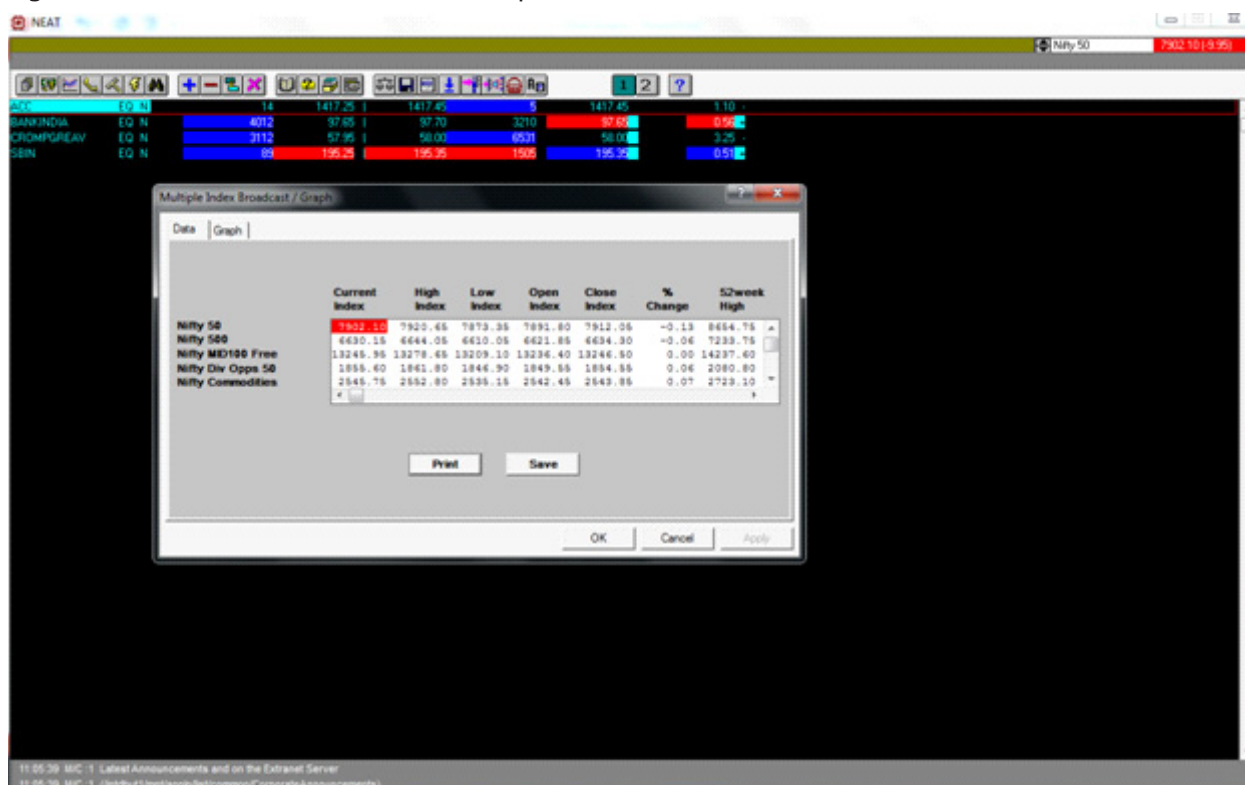
This screen displays information of NSE indices namely Nifty 50, Nifty50 PR 1x Inverse, Nifty100 Liquid 15, Nifty Services Sector, Nifty Midcap 50, Nifty Dividend Opportunities 50, Nifty Free Float Smallcap 100, Nifty PSE, Nifty MNC, Nifty Infrastructure, Nifty FMCG, Nifty Energy, Nifty Bank, Nifty 100, Nifty50 TR 1x Inverse, Nifty 11-15 yr G-Sec Index, Nifty 200, India VIX, Nifty 15 yr and above G-Sec Index, Nifty Auto, Nifty Media, Nifty Quality 30, Nifty PSU Bank, Nifty Metal, Nifty 500, Nifty IT, Nifty Commodities, Nifty CPSE, Nifty Financial

Services, Nifty Pharma, Nifty Midcap Liquid 15, Nifty Free Float Midcap 100, Nifty50 PR 2x Leverage, Nifty Next 50, Nifty India Consumption, Nifty Growth Sectors 15, Nifty 4-8 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec (Clean Price) Index, Nifty Composite G-Sec Index, Nifty50 TR 2x Leverage, Nifty50 Value 20, Nifty Realty, Nifty 8-13 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec Index, Nifty50 Dividend Points and Nifty Private Bank. The indices are labeled vertically and the information is displayed against each index horizontally. The data displayed for each index is as follows:

- (a) Current Index
- (b) High Index
- (c) Low Index
- (d) Open Index
- (e) Close Index
- (f) % change in Current Index (w.r.t. previous close index)
- (g) 52 week High
- (h) 52 week low
- (i) Up Moves
- (j) Down Moves
- (k) Market Capitalisation (in Rs. Lakh)

Index Graph displays all the indices on a real time basis to the market.

Figure 3.10 shows screenshot of multiple index broadcast window in NEAT CM.



**Figure 3.10: Multiple Index Broadcast window in NEAT CM**

### **3.10.14 Online Backup**

On Line Backup is a facility that the user can invoke to take a backup of all order and trade related information for the user. The information available is for the current day only.

On the selection screen the user can select the various fields on which the output will be filtered. The fields that can be filtered are CLI, Market Type, Book Type, Symbol, Series, Instrument Type, Date, Time, Order Indicator, Trade Indicator, Buy/Sell Indicator, Order Numbers and Trade Numbers.

The user is provided the option to copy the files to any drive of the computer or on a floppy diskette. This utility generates two ASCII files namely Order.txt and Trade.txt. The user can specify any filename for Orders and Trades. This utility will help the user to generate the Contract Notes. The user is requested to take backup first on the C:\ drive and subsequently copy to A:\ drive to avoid overloading PC capacity and abnormal log-off.

### **3.10.15 Basket Trading**

The purpose of basket trading is to provide NEAT users with a facility to create offline order entry file for a selected portfolio. On inputting the value, the orders are created for the selected portfolio of securities according to the ratios of their market capitalisations. An icon has been provided in the Toolbar which can be selected by the mouse to invoke the functionality.

In the basket trading functionality, the user first selects a portfolio from combo box. The portfolio in the combo box is user defined portfolios (which can be created or edited from the Security List screen which is an existing functionality). All users defined Portfolios are automatically loaded in to the combo box. The User then allocates an amount to the portfolio by mentioning the amount in the 'Amount' edit box. The amount entered is in lakh and must be less than or equal to Rs. 3000 lakh. If the amount entered is not sufficient to buy/sell a complete basket, a message "Insufficient amount for creating the basket" is displayed. Then, the User mentions whether he wants to buy or sell the Portfolio by selecting a choice from BUY/SELL combo box. The User has to mention the name of offline order file which would be generated. The Output Offline order file is always generated in the Basket directory of the current selected login drive. If a file with the given name already exists then it asks for overwriting the old file. A Reverse File with the same name is also generated in 'R\_Basket' directory of the current login drive. The Reverse File contains reverse order (if user has selected buy then it contains sell orders and vice-versa). The user can mention order's duration (IOC or day) by selecting from a check box. The User can also specify PRO/CLI orders by selecting from the combo box. In case of CLI orders it is compulsory to mention the account number in the edit box. The participant name can be mentioned. If mentioned it is verified whether it is a valid participant or not.

The amount mentioned in the 'Amount Edit' Box is divided among the securities of the portfolio, depending on their current market capitalisation, and the amount allocated per security is used to calculate the number of shares to be bought / sold for that security which is reflected in the offline order file. The number of shares is rounded off to the nearest integer. If the basket contains any security whose regular lot is not one, then the file will need to be corrected by the user to accommodate shares in tradable lots. If the portfolio contains a security which is suspended/not eligible in the chosen market then an error message is displayed on the screen.

All the orders generated through the offline order file are priced at the available market price.

Quantity of shares of a particular security in portfolio is calculated as under

$$\text{Number of Shares of a security in portfolio} = \frac{\text{Amount * Issued Capital for the security}}{\text{Current Portfolio Capitalisation}}$$

where

$$\text{Current Portfolio Capitalisation} = \text{Summation [Last Traded Price (Previous close if not traded) * Number of Issued shares]}$$

In case at the time of generating the basket if any of the constituents are not traded, the weightage of the security in the basket is determined using the previous close price. This price may become irrelevant if there has been a corporate action in the security for the day and the same has not yet been traded before generation of the file. Similarly, basket facility will not be available for a new listed security till the time it is traded. Figure 3.11 shows screenshot of basket trading window in NEAT CM.

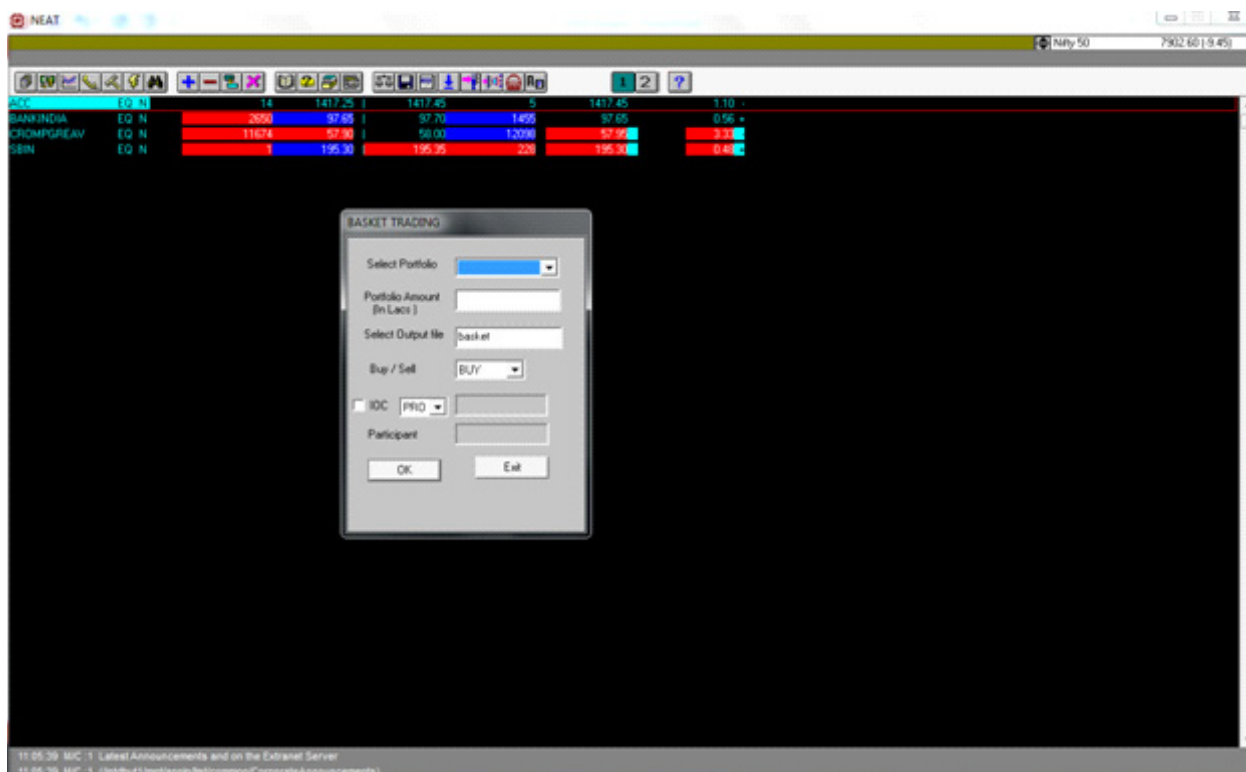
Three portfolio names viz "NIFTY 50", "Nifty JUNIOR" & "Nifty 100" are provided in Security / Portfolio List to generate offline order entry file using basket trading facility. In this case the file will be generated based on free float market capitalization for the user defined securities under these names.

Quantity of shares of a particular security in portfolio is calculated as under:

$$\text{Number of Shares of a security in portfolio} = \frac{\text{Amount * Issued Capital for the security}}{\text{Current Portfolio Capitalisation}}$$

where

$$\text{Current Portfolio Capitalisation} = \text{Summation [Last Traded Price (Previous close if not traded) * Number of Issued shares] Free float factor}$$



**Figure 3.11: Basket Trading screen window in NEAT CM**

### **3.10.16 Buy Back Trades**

As per SEBI Notification, dated November 14, 1998, buyback of securities is permitted in the secondary market. This is termed as 'Buy-Back from the Open Market'. In the open market, buyback of shares is permitted through Stock Exchanges having electronic trading facility and such buyback orders are required to be identified upfront in the electronic trading screen as buyback orders.

The purpose of Buy Back Trade functionality is to give information to the market about the buy back trades executed from the start of the buy back period till current trading date in the securities whose buyback period is currently on. It provides information about Symbol, Series, Day's high price, Day's Low Price, Day's Weighted Average Price, Day's Volume, Total Volume, Highest/Lowest/Weighted Average Prices till previous day, Buy Back Start & End date.

The Buyback Trade functionality provides users with the information about the buyback trades going in various securities. The front screen shows Symbol, Series, Low price (Today), High price (Today), Weightage, Average price, Volume (Today) and Previous day Volume.

The user after selecting a particular row from the buyback list box can view further information viz. Symbol, Series, Start date, End date, Total Traded Qty (Till date), Previous High price, Previous Low price and Wt avg. Price till date of buyback scheme. The Buyback broadcast updates the information.

### **3.10.17 Supplementary Functions**

This section discusses certain supplementary functions of NEAT such as Branch Order Value Limit, Most Active Securities, Colour Selection, Report Selection, Net Position and Print System Message.

The supplementary menu list box has the following options:

- (i) Report Selection
- (ii) Full Message Display
- (iii) Colour Selection
- (iv) Print System Message ON/OFF
- (v) Print Order/Trade Confirmation Slips On/Off
- (vi) Ticker Selection
- (vii) Market Movement
- (viii) Most Active Securities
- (ix) Reprint Order/Trade Confirmation Slip
- (x) Branch Order Value Limit
- (xi) Net Position and Net Position backup
- (xii) Online Backup
- (xiii) One line/Tabular Slips
- (xiv) User Order Value Limit Setup
- (xv) Offline Order Entry
- (xvi) Order Limits
- (xvii) Market Price protection functionality
- (xviii) Order Attributes Selection
- (xix) Client Master Maintenance
- (xx) Index Trading
- (xxi) Reverse Basket on Trading Quantity
- (xxii) Display CM Ticker

- (xxiii) Display FO Ticker
- (xxiv) Trade Confirmation Bell
- (xxv) Multiple Trade Cancellation
- (xxvi) Debarred Client Maintenance
- (xxvii) Reset User ID
- (xxviii) Offline File Conversion
- (xxix) Print Bhavcopy On/Off
- (xxx) Reset Password
- (xxxi) About

**(i) Report Selection:** Report selection window allows the user (corporate manager and branch manager) to specify the number of copies to be printed for each report. The user can update the number of copies for a report. The Report Selection screen allows the user (Corporate manager and Branch Manager only) to specify the number of copies to be printed for each report. All the reports are generated at the end of day. Once the reports are printed, the Report Selection screen shows the date and the time the reports were printed. The user can request for reprinting any of the reports. The reports that are available to the trading member are Market Statistics and Market Indices.

(a) **Market Statistics:** The purpose of this report is to show the market statistics of that trading day. This report gives details related to all the securities traded on that day for all markets.

(b) **Market Indices:** A separate Market Indices Report is also disseminated to members which contains details regarding the Open, High, Low, Close, Previous Close and % change over the Previous Close of NIFTY 50, NIFTY Defty, NIFTY Junior, NIFTY 500, NIFTY 100, NIFTY Midcap NIFTY IT, Bank Nifty, Nifty Midcap 50, NIFTY Realty, NIFTY Infra, NIFTY Energy, NIFTY FMCG, NIFTY MNC, NIFTY Pharma, NIFTY PSE, NIFTY PSU Bank and NIFTY Service

**(ii) Full Message Display:** This option enables the display of all the system messages right from the start of the Opening Phase. It is also possible to filter the messages depending on the message code, symbol, series, PRO/CLI, Client, date and time. The system messages can be printed, if needed.

Message area contains user ID for order and trade confirmation\modification\cancellation and rejection. The trade confirmation\modification\cancellation messages displayed in the message area will contain the corresponding remarks entered during the order entry.



The user can filter, print and save messages. In the message filtering screen the message code by default shows ALL. The user has the option to select the desired message code on which the messages can be filtered. The messages can also be filtered on Symbol, Series, Trading member Code, PRO/CLI/ ALL, Client A/C Number, Date and Time fields.

In case the user desires to filter messages for trading member's own order/trade related messages, 'PRO' has to be specified with the trading member code defaulting in the 'Client Account' field. In case the user desires to filter messages for a particular client, 'CLI' has to be specified with the client account code in the 'Client Account' field. In case the user desires to view all messages, 'ALL' has to be specified and the 'Client Account' field should be blank. The message filter displays 'ALL' by default when the user invokes the full message display screen.

Message area will contain the machine number along with the message specifying from which machine the message have been generated. An extra filter code has been provided in the message area to filter messages on the machine number parameter. The messages are filtered as per the selection criteria. The message codes on which the selection can be made are:

<b>Message Code</b>	<b>Description of Messages Selected</b>
ALL	All messages
AUC	Auction order/trade messages
AUI	Auction initiation messages
LIS	All listing related messages
MAR	Margin Violation messages
ORD	Order Related messages
OTH	Miscellaneous
SPD	Security Suspension/De-suspension
SYS	System Messages
TRD	Trades

The full message display and filtered messages can be printed by invoking the print command by ensuring that the printer is online. The user can save messages by invoking the Save option on the Full Message Display screen and by specifying the directory and file name in the pop up box. Here an option is available to the user to both specify the directory and file name to save messages, or to choose the default directory i.e. nsecm\user directory. This file can be viewed in MS-DOS editor.

**(iii) Colour Selection:** The user can customise the colours for various inquiry and other trader workstation screens as per choice. The background and the foreground colours can be selected by invoking the Colour Selection option. The following is displayed on the colour selection list box:

- (a) **List of Screens:** Lists all the screens in NEAT system. The user has the option of changing both the foreground and the background colours of any screen.
- (b) **Display Window:** Displays the screen with the changed colours. To change the colour of a particular screen, the user has to position the highlight bar on the desired screen and select any one of the sixteen colour buttons. The change in the colour can be seen in the Display window. The user can reset the colour to default setting by selecting the Default option. It is to be noted that the user cannot select the same colour for foreground of an inquiry screen.
- (iv) **Print System Messages On/Off:** The 'Print System Messages ON/OFF' enables/disables printing of the system messages as and when they appear in the messages window. By default the option is set to 'OFF'. The user can change the On/Off position by pressing the space bar. The current mode (On/Off) is displayed for this option on the Supplementary Menu screen itself.
- (v) **Print Order/Trade Confirmation Slips On/Off:** The 'Print Order/Trade Confirmation ON/OFF' enables/disables printing of the order/trade slips. By default the option is set to 'OFF'. The user can change the On/Off position by pressing the space bar. The current mode (On/Off) is displayed for this option on the Supplementary Menu screen itself. Pre open Identifier 'P' is displayed for Pre open records.
- (vi) **Ticker Selection:** The ticker selection screen allows the user to set up the securities that should appear in the user's ticker window. All the securities available in the system for a particular market are displayed. If a security is deleted from the system, it is also removed from the ticker selection display. The selection of securities can be done for each market separately. The user can select one or all security type for display.
- (vii) **Market Movement:** The purpose of the 'Market Movement' screen is to provide information to the User regarding the movement of a security for the current day. This inquiry gives the snap shot for a particular security for a time interval as parameterised by the exchange.
- (viii) **Most Active Securities:** This screen displays the details of the most active securities based on the total traded value during the day. The number 'N' is parameterised by the Exchange. The information provided on this screen is not dynamically updated. The user, however, can get the latest information by refreshing the screen.
- (ix) **Reprint Order/Trade Confirmation Slips:** Although the order and trade slips for 'confirmation', 'modification', 'rejection' and 'cancellation' slips can be printed as and when a particular operation is performed. The user, however, can reprint these slips later during the trading day by using this option.

The user can select the order or trade and the type of slips i.e. confirmation, modification, cancellation or rejection. There is facility to select one or more operations for printing the slips.

For example one can select 'confirmation' as well as 'modification' at a time. After the user specifies the type of slip to be printed, the start and end order/trade numbers are automatically filled. The user has to specify the range of order or trade numbers by appropriately selecting the start and the end order/trade numbers. Initially, the options have such values that all the order related slips can be printed. The start and the end order numbers contain order numbers that was entered by the user on the current day. On selecting Print option all the selected order/trade slips are printed and on selecting the Cancel option, no slips are printed.

- (x) Branch Order Value Limit Setup:** The purpose of this screen is to enable corporate manager to setup a limit on order entry for each branch under the trading member firm. This option in supplementary menu is available to the user only if the user is a corporate manager. On selection, the Branch Order Value Limit Setup screen appears. To view the limit for a particular branch, the user has to select the Branch ID and the details for the branch i.e. branch name, the limit set and the used up value are displayed. The values for the branch order limit are displayed in Rs. lakhs.

To change the limit for a branch, the user has to select the 'Limited' option and enter the new limit in the 'New Limit Value'. The new limits are then updated by the system.

The user can also print the details of a branch by selecting the Print option. Viewing and modification is possible during market hours.

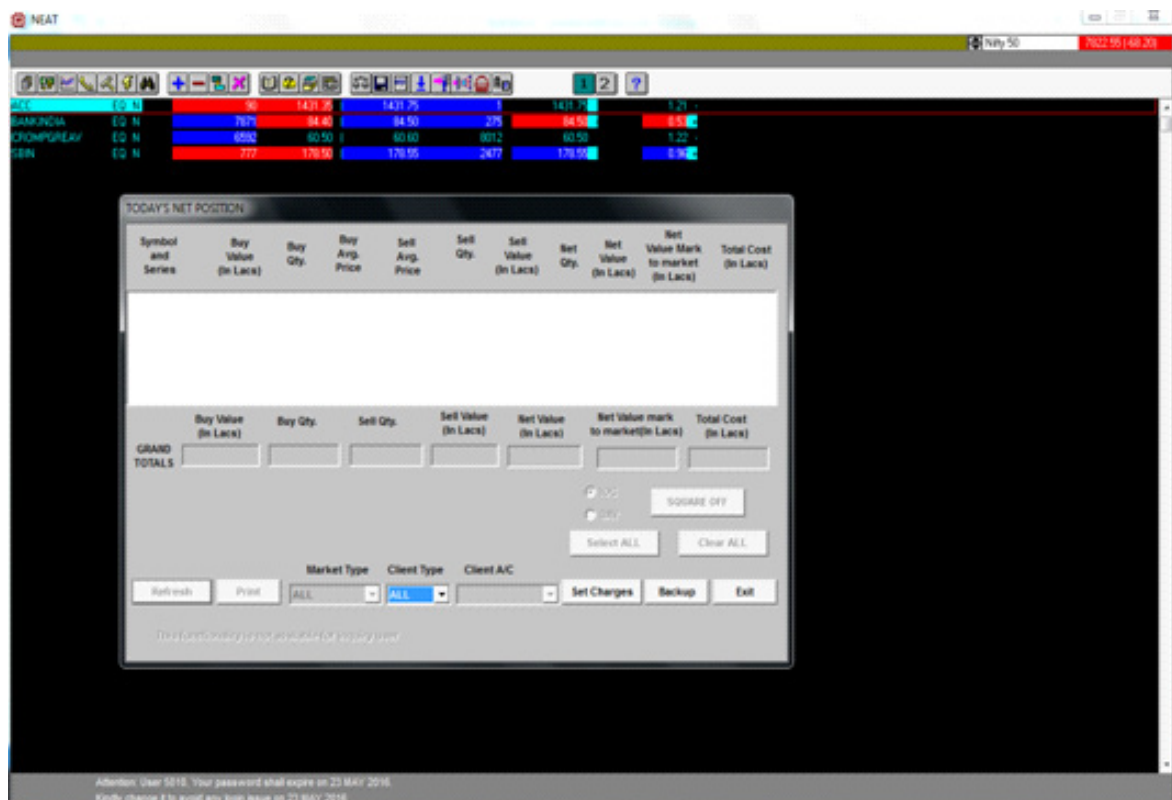
A corporate manager can set the branch order value limit for any/all branches either before or during trading hours. Also, the corporate manager can view the set limit and the used limit any time during the trading day. Whenever the corporate manager modifies the branch order limit of any of his branches, the branch manager receives a message to that effect at his trader workstation.

- (xi) Net Position and Net position Backup:** The user can interactively view his net position across securities. The Net Position screen displays Symbol, Series, Buy Value (in lacs), Buy Qty, Buy Average Price, Sell Average Price, Sell Qty, Sell Value (in lacs), Net Qty and Net Value (in lacs).

It also displays the Grand Total of Buy Value (in lacs), Buy Qty, Sell Qty, Sell Value (in lacs), Net Value (in lacs) and Net Value Mark to Market (in lacs). Net position screen displays the Net Mark to market value scrip wise as well as total net mark to market value.

The user has the option for selecting market type as Normal/Odd Lot/All. The user can also select Client Type as CLI/PRO/All. The user is provided with an option to select the client code from the drop down menu to view the net position of specific client. The user can refresh the screen to update the Net Position and can also print the details of the Net Position screen at any point of time. Net position backup is available from the Net position screen. The User can select the fields as Symbol, Series, PRO/CLI and CLI A/c Number on which the output would be filtered.

By default the output file is generated and stored as 'Netpos.txt'. The user can overwrite and specify any other file name also. The user has the option of generating the output file in any directory he wants to or on a pen drive.



## SQUARE OFF:

This special functionality has been added for the user to Square of his position. This can be done by clicking the new option Square Off provided in the screen.

The user first needs to select one or more records from the list box. To select all the records, Select All button is provided. To clear all the selected records, Clear All button is provided.

When user clicks on Square off, an offline file will be generated containing counter orders which will square off the position of that particular user. The offline file generated will be stored in the drive from where the exe is re-inflated. The name of the offline file generated will be SqrOffPosition.txt".

The position can be squared off only for Normal Market. If the ODDLOT market is selected, the Square Off button will get disabled.

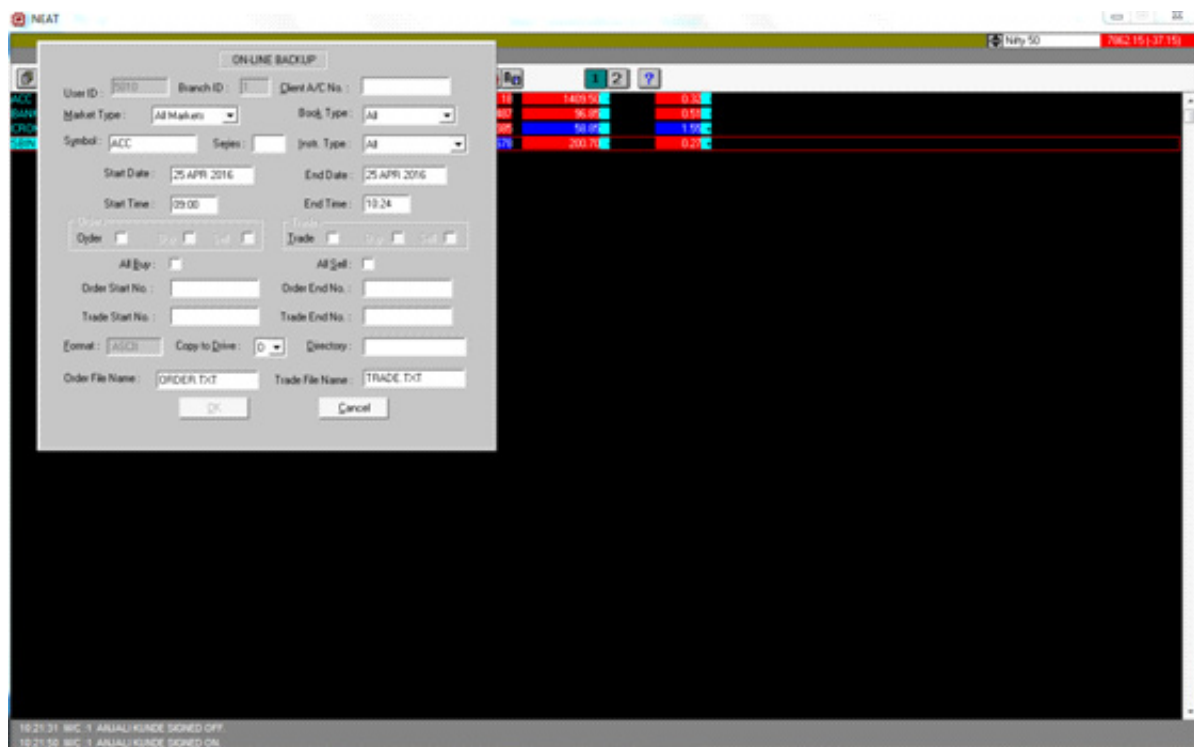
If ALL is selected from the Market type drop down list, then the positions will be squared off for open position of NORMAL Market only.

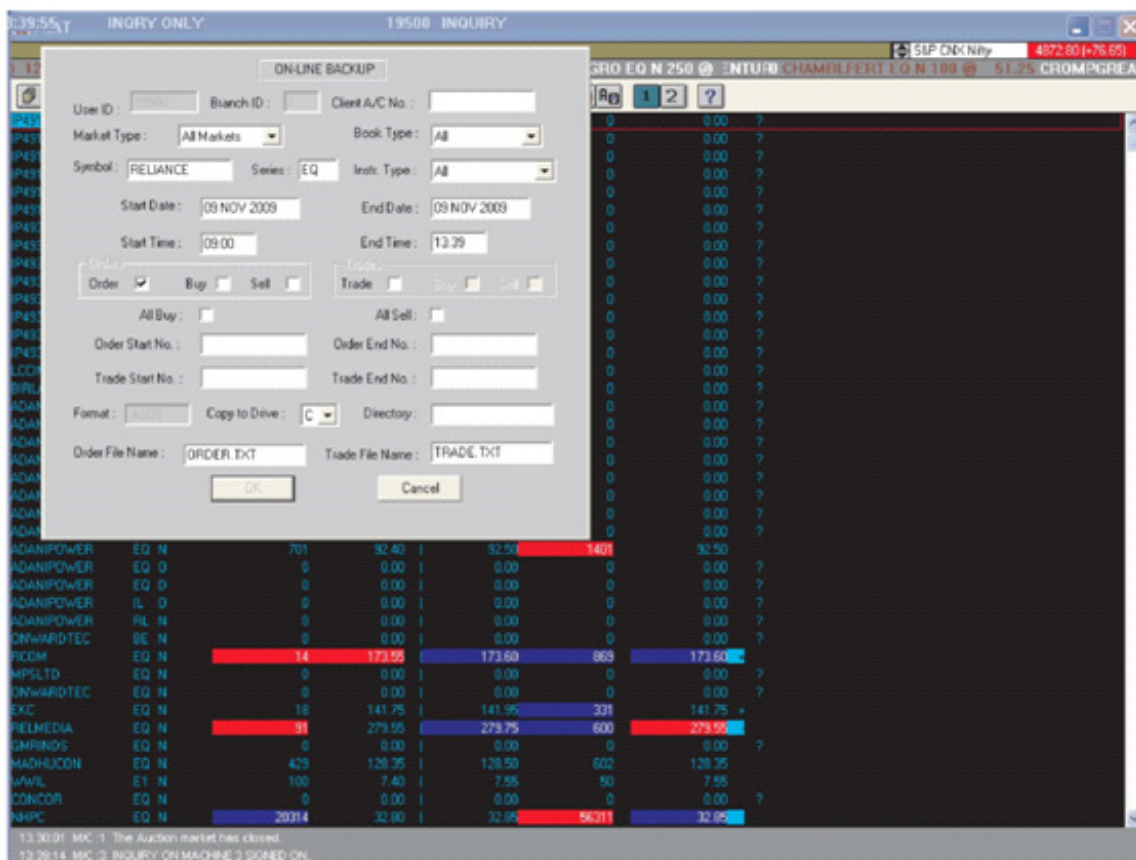
If the user selects PRO or CLI from the Client Type drop down box, then the position would be squared off only for those corresponding Open positions.

In case of CLI if user selects a particular Account Number, then the position would be squared off only for those corresponding Open positions only.

The user is given an option to generate either DAY/IOC (IOC is defaulted) order while generating the offline file.

**(xii) Online Backup:** On Line Backup is a facility which the User can invoke to take a backup of all order and trade related information for the User. The information available is for the current day only. Figure 3.12 shows screenshot of online backup window in NEAT CM.





**Figure 3.12 Online Backup window in NEAT CM**

**(xiii) One line/Tabular Slips:** The 'One Line or Tabular slips' is used to select the format for printing confirmation slips. By default the option is set to 'One Line'. The user can change the format to 'Tabular slip' by pressing the spacebar. The current mode is displayed on the Supplementary Menu screen.

**(xiv) User Order Value Limit Setup:** User order value limit is the cumulative value of orders placed by the user during the day across all securities. This enables the corporate manager to set up different limits among the users depending upon the permitted user activity in single/multiple scrips. For a new user, the user order value limit is set as zero by default.

Every order entry will be checked for user order value limit. A user is restricted to enter orders greater than the order value limit specified by his corporate manager. In case the user order value limit is exhausted a message "Order number ..... request rejected. Used limit cannot exceed the user order value limit." is displayed on the message window screen.

Following are the main features of user order value limit functionality:

(a) A corporate manager can set up branch order value limit and user order value

limit for all users. A branch manager can also set up the user order value limit for the users under his branch. The corporate manager can also query for order limits of any user under the trading member firm. While the branch manager can view the user order limits of the users under his branch only.

- (b) User order value limits are dependent on branch order value limit. It is not possible for a corporate manager to set only branch order value limit and not assign any user order value limit. It is mandatory for the corporate manager to configure user order value limit. The branch manager may also set up the user order value limit for users under his branch.
- (c) The cumulative value of user order value limit should not exceed the corresponding branch order value limit. Also, user order value limit cannot be set as unlimited if branch order value limit is set as specific value. In case the corporate manager tries to revise the branch order value limit to a value less than the user order value limit a message "Cumulative user limit exceeded the branch limit" is displayed on the branch order value limit screen.
- (d) When the corporate manager sets up the user order value limit as specified, a message "User order value limit for user number ..... has been set to Rs. . .... lakh" is displayed on the message window screen of the corporate manager, respective Branch Manager and the concerned user.
- (e) The user order value limit can be revised during trading hours.
- (f) The corporate manager/branch manager can also print the user order value limit details.

Example: M/s. Agre Financial Services, a trading member on the NSE, has a branch order value of Rs. 700 lakh for his Chennai branch and Rs. 650 lakh for Kolkata branch. Chennai branch has two users 'X' and 'Y' with user order value limits of Rs. 250 lakh and Rs. 300 lakh respectively. Kolkata branch has one user 'Z' with user order value limit of Rs. 350 lakh. The member applies for a new user at Chennai. What is the maximum user order value that can be set for the new user?

The maximum User Order Value limit for Chennai is

$$= \text{Rs. } 700 - (\text{Rs. } 250 + \text{Rs. } 300) = \text{Rs. } 150 \text{ lakh}$$

- (xv) Offline Order Entry:** A facility 'Offline Order Entry' has been incorporated in the trading software where the user can generate order file in a specific format outside the trading system and upload the file in the system by invoking this facility. The user has to specify the exact file location that can be a hard disk drive or a pen drive. The



status of the orders so uploaded is recorded in last two fields of the same file. Once the order processing is complete, the user can open the same file in MS-DOS editor. If the system assigns an order number, the same is written against the record. In case of any error(s), the corresponding error code is written against the record. Users can place bulk orders in pre-open with book type as 'PO'

The user has to specify the relevant order file name in the Offline Order Entry pop-up box and then initiate the upload process. The user can also interrupt the injection of the orders. It should be noted that the file has to be in the format as specified by the Exchange. The offline order entry facility accepts comma separated file structure (file saved as \*.csv where \* is the file name).

#### Advanced Offline Order Entry

A special feature 'Advanced Offline Order Entry' has been incorporated in the trader workstation for all types of users ('Corporate Manager', 'Branch Manager' and 'Dealer') except 'Inquiry users'. The user can create an offline order file using this feature. This file can be used to place orders in bulk. The user has the option of adding, modifying or deleting a record in the created file. The user can also create the file in a specific format (as mentioned below) outside the trading system and upload the file in the system by invoking this facility.

**(xvi) Order Limits:** An Order limit is a facility to enable the user to specify maximum value per order and maximum quantity per order that can be entered from the trader workstation. At the time of order entry and order modification this limit is checked by the system. Order limits are set by individual users and are provided as safety measure against any inadvertent error during data entry while entering orders.

In case specific value/quantity is to be specified, data has to be entered in the respective input fields namely 'Order Value (in lakh)' & 'Order Quantity'. The order limits can be modified during market hours. When the user modifies these limits, a message 'Max. Value/Qty for one order has been set to Rs ..... Lakh/ ... ' is displayed on the message window screen. While modifying the values if either of the input fields is left blank, the dealer gets an error message, either 'Quantity Limit not Entered' or 'Value Limit not Entered' respectively. In case the user tries to modify without entering any new values, a message 'Values not changed' is displayed. Whenever the user places an order, the order values are validated against these values to confine the checking to the trader workstation. In case the user enters an order that exceeds the specified quantity limit, a message 'Order quantity entered exceeds the order limit quantity' is displayed. In case the user enters an order which exceeds specified order value (order price x order



quantity) a message 'Order value exceeds order value limit' is displayed. The quantity check is always done prior to order value check. Only if both values are not exceeded, the order is sent to the system for further processing. In case of a market order if the order quantity exceeds the order quantity limit, the checking is done at the trader workstation itself as in the case of priced orders. For order value check, however, the check is performed by the Host.

**(xvii) Market Price protection functionality:** This functionality gives an option to a trader to limit the risk of a market order, within a pre-set percentage of the Last Trade Price (LTP). The pre-set Market price protection percentage is by default set to 5% of the LTP. The users can change the pre-set Market price protection percentage from the Order Limit Screen which can be invoked from the Supplementary Menu. The set percentage will be applicable till the Ntreldr EXE is re-inflated.

At the time of order entry, the user can check the cursor is in the price field. In case of a buy order, the price value shown is taken as the default price, which is greater than LTP by a pre-set percentage. In case of a sell order, the default value will be lesser than the LTP by a pre set percentage. The time condition in both cases will automatically change to IOC. The user has the option to change any of the fields. Since the calculations are based on LTP if broadcast for the security is not received, the default value will be 'MARKET'.

Order Attribute Selection: The order attribute selection enables user to set default parameters for two fields – PRO/CLI and Custodial Participant id fields in the order entry screens. The selection screen provides a facility whereby users can select or deselect required options. The PRO/CLI and custodial participant ID options as selected by the user is available in the order entry screen. In case the user deselects all options for PRO/CLI the following error message is displayed "Either PRO or CLI must be selected". If a member sets the default option in the PRO/CLI field as 'PRO', then each time the order entry screen is invoked, 'PRO' will be displayed and 'CLI' will not be available to the user for order entry. If a member selects 'PRO' and 'CLI', then each time the order entry screen is invoked, 'PRO' and 'CLI' will be available to the user for order entry. Similarly, if a member selects 'NCIT' in the custodial participant field, only 'NCIT' will be displayed on invoking the order entry screen. If a member selects broker id as default option in the custodial participant field, then only the broker id will be displayed in the order entry screen.

In addition to this, in order to prevent Self Trades an option of "Cancel Passive Order" and "Cancel Active orders" is provided. If an active order is likely to match with a

passive order belonging to the same member-client or same member-proprietary combination in the same order book, then active or passive order (full or partial as the case may be) as per the option set in order entry shall be cancelled by the exchange with rejection message "Order cancelled by the System – The order could have resulted in Self-trade".

By default this screen has all the options marked for display in the order entry screen. Options can be changed during trading hours. However, if a user exits the NEAT application and logs in again, the required parameters will have to be selected again for order entry.

The order entry screen is defaulted at "Book Type" field. The member is provided with the facility where he can choose the order entry screen default to be "Book Type" or "Quantity".

By default this screen has "Book Type" option marked. Options can be changed during trading hours.

If the member selects 'Book Type' in Book/Quantity field, the default cursor will be placed at "Book Type" in order entry screen/order modification screen.

If the member selects 'Quantity' in Book/Quantity field, the default cursor will be placed at "Quantity" in the order entry screen, except if the market watch is blank, in this case the default cursor will be placed at "Book Type" while in the order modification screen the default cursor will be placed at "Quantity".

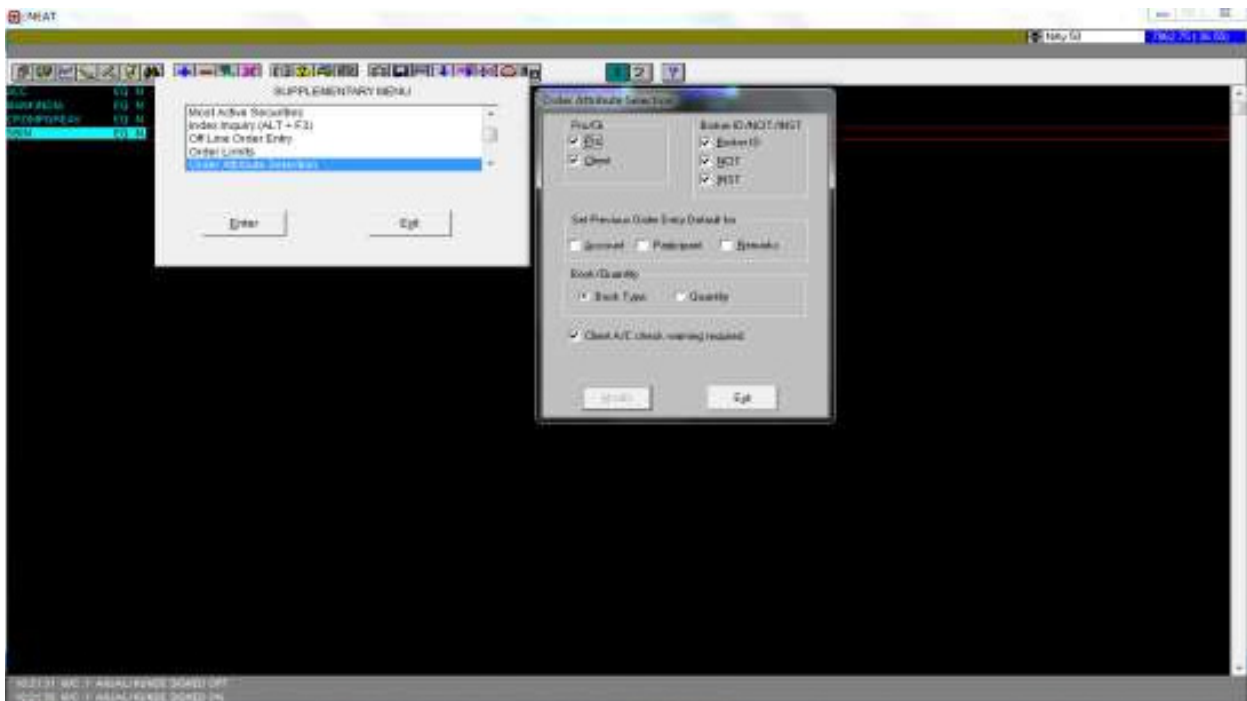
This parameter selected by member will remain even if the member exits the NEAT application and until the member reinflates the NEAT exe.

The users have been provided with a facility to set up the last entered Client account number, Participant & remarks fields in the order entry screens as the default values. These values will be taken as default till the time the fields in the order entry screens are not altered or the NEAT front end is not closed. On setting the checkboxes, the values entered in the previous order will be taken as default in the relevant fields. These fields will continue to have the default values till any one of the fields is toggled, or a different order is placed. Each of these three fields can be taken as default individually or in any desired combination.

An option has also been provided to warn the user if the account number being entered for the client is not present in the client master file. A checkbox has been provided in the Order Attribute Selection screen to enable or disable this facility. Once the user receives a warning, he has the option of entering the client account number and details

in the client master and resumes order entry or skip this. In case of offline order entry, the warning is for each order in the input file. The user has the option of stopping the offline file by clicking on the Offline order entry screen and clicking on the Stop button. Figure 3.13 shows screenshot of order attribute window.

**Figure 3.13: Order Attribute window in NEAT CM Change screen**



**(xviii) Client Master Maintenance:** This facility allows the user to maintain list of client in trader workstation. Along with client code other information like Client Name, PAN No., Participant Code can be maintain in client master. The user can add, modify, upload or delete clients. During order entry when the user selects the cli option and press the down arrow key in the account field, a drop down list of clients will be enabled. The user can select a particular record, by typing the first character of account number. On pressing Enter key, the account number of that record will be defaulted in the Account No. field. Also if participant exists for the selected account number, the Participant ID gets populated in the participant field of the order entry screen.

**(xix) Reverse Basket on Traded Quantity:** The purpose of Reverse Basket Trading is to provide the users with an offline file for reversing the trades that have taken place for a basket order. This file will contain orders for different securities of the selected basket file. The Orders will be created according to the volume of trade that has taken place for that basket. This feature can also be used to monitor the current status of the basket file as the latest status of the orders are displayed in the list box. The functionality of creating reverse basket offline order file based on orders at the time of creating the

basket will continue to be available. The new functionality is another alternative to create the reverse file based on the trades executed till the point of time.

User can invoke the functionality by selecting it from the supplementary menu. On selecting the relevant basket file the details of that file are loaded in the list box. The basket file names in the combo box are user defined file names (which can be created or edited from Basket Trading Screen which is an existing functionality). All User defined basket file names are automatically loaded in to the Combo box. The User can select the basket of his choice. It is advisable to create each basket with a different name and clean up the directories regularly and not tamper with the original basket file once it has been loaded as it may give erroneous results.

On pressing the Reverse button the reverse basket file would be generated in the RTRDBASKET folder in the login drive. The file would have the same name as the basket file prefixed with a REV\_. If a file with the given name already exists then it asks for overwriting the old file. The User can mention Order's duration (IOC or day) by selecting from a check box.

- (xx) Display CM Ticker:** The 'Display CM Ticker ' is used to enable or disable CM ticker.
- (xxi) Display FO Ticker:** The 'Display F&O Ticker ' is used to enable or disable F&O ticker.
- (xxii) Trade Confirmation Bell:** The 'Trade confirmation Bell ' is used to enable or disable the bell sound at trade confirmation.
- (xxiii) Multiple Trade Cancellation:** An additional facility 'Multiple Trade Cancellation' is provided to the user to cancel all the trades done by him, based on an order number.
- (xxiv) Debarred Client Maintenance:** This facility allows to maintain a list of Debarred Clients. The user is provided option to add, modify, save, upload or delete debarred clients. During order entry, if a user tries to place an order for any debarred client added in the Debarred Client Master, then an error message "The account is debarred from trading" will be displayed on the order entry screen.
- (xxv) Reset User ID:** This will facilitate the members to terminate the active session for users under the trading member. The facility has been provided to all corporate managers and branch managers. A branch manager can terminate the active session for all the users of that branch except for self. Active session of the branch manager can be terminated by the corporate manager. The session of the corporate manager can be terminated only by the Exchange.
- (xxvi) Offline File Conversion:** The feature Offline File Conversion has been incorporated in the trading software. The user can use this functionality to convert a file with a

predefined format into an output file of Offline file format. The user can upload this converted file using Offline Order Entry functionality or Advance Offline Order Entry functionality.

While using the Offline File Conversion Functionality, User has to give the complete input file name (e.g. C:\Example.txt); the output file will be generated at the same location as of input file with the name as "<filename>\_conv" (e.g. C:\Example\_conv.txt).

The Offline File Conversion is available only for Normal Market under RL orders. The Offline File Conversion facility will accept comma separated file as input.

This Facility is not available for the Inquiry user.

In case of any error(s), the corresponding error code is written against the record in the output file and Pop-Up "Error in File Conversion" is displayed when Offline File Conversion is completed.

**(xxvii)Print Bhavcopy On/Off:** "Print Bhavcopy On/Off" is used to enable or disable the printing the bhavcopy, interim bhavcopy and index bhavcopy reports.

By default, the option will be set to 'Enable'. To change the [Enable/Disable] status presses the [Spacebar]. The current status is immediately displayed on the supplementary menu screen.

**(xxviii)Reset Password:** This screen enables Corporate Manager to reset the password and to enable the users of their trading member who got disabled by entering wrong passwords for more than 6 times.

**(xxix) About:** The 'About' window displays the software related version number details and copyright information

### **3.11 Order Management**

Order Management consists of entering orders, order modification, order cancellation and order matching.

#### **3.11.1 Entering Orders**

The trading member can enter orders in the normal market, odd lot and auction market. A user can place orders in any of the above mentioned markets by invoking the respective order entry screens. After doing so, the system automatically picks up information from the last invoked screen (e.g. Market Watch/MBP/OO/SQ and Security List). When the user invokes the order entry screen, the fields that are taken as default are Symbol, Series and Book Type.

In case of other fields, the system takes the following defaults:

Qty	Regular lot quantity available at best price on counter side
Price	Price of best counter order
Pro	Trading member ID of the user
Order Duration	Day
Disclosed quantity	Fully Disclosed
Participant ID	Trading member ID of the user

### *Active & Passive Order*

When any order enters the trading system, it is an active order. It tries to find a match on the other side of the books. If it finds a match, a trade is generated. If it does not find a match, the order becomes a passive order and goes and sits in the order book.

### *Order Books*

As and when valid orders are entered or received by the trading system, they are first numbered, time stamped and then scanned for a potential match. This means that each order has a distinctive order number and a unique time stamp on it. If a match is not found, then the orders are stored in the books as per the price/time priority. Price priority means that if two orders are entered into the system, the order having the best price gets the higher priority. Time priority means if two orders having the same price is entered, the order that is entered first gets the higher priority. Best price for a sell order is the lowest price and for a buy order, it is the highest price.

The different order books in the NEAT system are as detailed below:

- **Pre-open Book :** An order during Preopen session has to be a Preopen (PO) order. All the Preopen orders are stacked in system till the Preopen phase. At the end of Preopen phase, the matching of Preopen orders takes place at the Final Opening Price. By default, the Preopen (PO) book appears in the order entry screen when the Normal Market is in Preopen and the security is eligible for Preopen Session. Order entry in preopen book type is allowed only during market status is in preopen.
- **Regular Lot Book:** An order that has no special condition associated with it is a Regular Lot order. When a dealer places this order, the system looks for a corresponding Regular Lot order existing in that market (Passive orders). If it does not find a match at the time it enters the system, the order is stacked in the Regular Lot book as a passive order. By default, the Regular Lot book appears in the order entry screen in the normal market. Buyback orders can be placed through the Regular Lot (RL) book in the Normal

Market. The member can place a buyback order by specifying 'BUYBACKORD' in the Client Account field in the order entry screen. Such company buyback orders will be identified in MBP screen by an '\*' (asterisk) indicator against such orders.

- **Stop Loss Book:** Stop Loss (SL) orders are released into the market when the last traded price for that security in the normal market reaches or surpasses the trigger price. Before triggering, the order does not participate in matching and the order cannot get traded. Untriggered stop loss orders are stacked in the stop loss book. The stop loss orders can be either a market order or a limit price order. For buy SL orders, the trigger price has to be less than or equal to the limit price. Similarly, for sell SL orders, the trigger price has to be greater than or equal to the limit price.
- **Odd Lot Book:** The Odd Lot book can be selected in the order entry screen in order to trade in the Odd Lot market. Order matching in this market takes place between two orders on the basis of quantity and price. To enter orders in the odd lot market, select the book type as OL.
- **Auction Order Book:** Auction order book stores orders entered by the trading members to participate in the Exchange initiated auctions. Auction orders can be initiator orders, competitor orders and solicitor orders.

### *Symbol & Series*

Securities can be taken as default values from the order entry screen from any of the inquiry screens such as MBP, OO, PT, AL, MI and SQ. In case the security is not set up in the Market Watch screen, the Security List can also be used to take the codes as default values.

Order entry in a security is not possible if that security is suspended from trading. E.g. If a security is suspended in the normal market a message "Security is suspended in the normal market" is displayed on the order entry screen. The label 'Suspended' is also displayed in the market watch screen for the setup security.

Order entry is also not possible in case the security is not eligible to trade in a particular market. E.g. If a security is not eligible to trade in the normal market a message "Security is not allowed to trade in normal market" is displayed on the order entry screen. In case the user types the symbol series incorrectly a message "Invalid symbol series" is displayed on the screen.

### *Quantity*

When the buy/sell order entry screen is invoked, the regular lot size available at the best price on the counter side gets defaulted in the order entry screen. In case auction book is selected for display, the quantity has to be specifically mentioned by the user. Quantity mentioned should be in multiples of regular lot size for that security.

### *Quantity Freeze*

All orders with very large quantities will receive quantity alert at member terminal. Currently, if member enters any order exceeding the lowest of the quantity given below, results in an alert which will read as *"Order entered exceeds alert quantity limit. Confirm availability of adequate capital to proceed"* and only after the member clicks the button 'Yes' the order will be further processed for execution.

A global alert quantity limit of more than 25000 irrespective of the issue size of the security, whichever is less.

### *Price*

Along with the regular lot quantity, the best price on the counterside is also taken as default value in the order entry screen. A user has the option to either enter the order at the default price or overwrite it with any other desired price. If a user mentions a price, it should be in multiples of the tick size for that particular security and within the day's minimum/maximum price range, otherwise the order is not accepted by the system and an order rejection message/ confirmation slip is generated. For a No price band scrips(scrip), if a price outside the Operational Range is entered, the order results in a price freeze and is not accepted as a valid order till the time the Exchange approves it. All auction orders require the user to mention a price.

In case the user enters an order with a 'Market' price, the order takes the last traded price in the respective market as the market price, provided no passive order exists on the same side or the counter side in that security and in that market. On the other hand, if suitable orders exist on the counter side, then the order takes the price of the counter order and a trade is generated. If an order exists on the same side but no orders exists on the counter side, then the order takes the price of the best order on that side and is stacked immediately below it. If the security has never been traded, then the market order takes the value of the base price and sits in the books as a passive order.

Another option provided to Users in the Pre-open phase of the Normal market is 'ATO' or the 'At Open Price' concept. 'Market' orders entered in the pre-open are termed as 'ATO'. Based on the opening algorithm, the system computes a potential opening price. Once the market is open for trading, the ATO orders take these prices.

In case of stop loss orders, a user has the flexibility of specifying a limit price along with the trigger price. This limit price can be selected as equal to the trigger price in the price field so as to leave it with the word 'Price'. Alternatively, a user can specify a limit price as 'Market' price.



### *Circuit Breakers*

The Exchange has implemented index-based market-wide circuit breakers in compulsory rolling settlement with effect from July 02, 2001. In addition to the circuit breakers, price bands are also applicable on individual securities.

**Index-based Market-wide Circuit Breakers:** The index-based market-wide circuit breaker system applies at 3 stages of the index movement, either way viz. at 10%, 15% and 20%. These circuit breakers when triggered bring about a coordinated trading halt in all equity and equity derivative markets nationwide. The market-wide circuit breakers are triggered by movement of either the BSE Sensex or the Nifty 50, whichever is breached earlier.

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

The extent of duration of the market halt and pre-open session is as given below:

<b>Trigger limit</b>	<b>Trigger time</b>	<b>Market halt duration</b>	<b>Pre-open call auction session post market halt</b>
10%	Before 1:00 pm.	45 Minutes	15 Minutes
	At or after 1:00 pm upto 2.30 pm	15 Minutes	15 Minutes
	At or after 2.30 pm	No halt	Not applicable
15%	Before 1 pm	1 hour 45 minutes	15 Minutes
	At or after 1:00 pm before 2:00 pm	45 Minutes	15 Minutes
	On or after 2:00 pm	Remainder of the day	Not applicable
20%	Any time during market hours	Remainder of the day	Not applicable

These percentages are translated into absolute points of index variations on a daily basis. At the end of each trading day, these absolute points of index variations are revised for the applicability for the next trading day.

### *Price Bands*

Daily price bands are applicable on securities as below:

- (a) Daily price bands of 5% (either way) on securities as specified by the Exchange.
- (b) Daily price bands of 10% (either way) on securities as specified by the Exchange.
- (c) No price bands are applicable on scrips on which derivative products are available or scrips included in indices on which derivative products are available. In order to prevent members from entering orders at non-genuine prices in such securities, the Exchange has fixed operating range of 10% for such securities.
- (d) Price bands of 20% (either way) on all remaining scrips (including debentures, preference shares etc).

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

### *Order Types and Conditions*

The system allows the trading members to enter orders with various conditions attached to them as per their requirements. These conditions are broadly divided into Time Conditions, Quantity Conditions, Price Conditions and Other Conditions. Several combinations of the above are allowed thereby providing enormous flexibility to the users. The order types and conditions are summarised below:

#### **(i) Time Conditions**

- (a) DAY: All orders entered into the system are currently considered as Day orders only.
- (b) IOC: An Immediate or Cancel (IOC) order allows the user to buy or sell a security as soon as the order is released into the system, failing which the order is cancelled from the system. Partial match is possible for the order, and the unmatched portion of the order is cancelled immediately.

#### **(ii) Quantity Conditions**

DQ: An order with a Disclosed Quantity (DQ) allows the user to disclose only a portion of the order quantity to the market. For e.g. if the order quantity is 10,000 and the disclosed quantity

is 2,000, then only 2,000 is released to the market. After this quantity is fully matched, a subsequent quantity of 2,000 is disclosed. Thus, totally five disclosures with the same order number are shown one after the other in the market.

### **(iii) Price Conditions**

- (a) Market: Market orders are orders for which price is specified as 'MKT' at the time the order is entered. For such orders, the system determines the price.
- (b) Stop-Loss: This facility allows the user to release an order into the system, after the market price of the security reaches or crosses a threshold price called trigger price.

Example: If for stop loss buy order, the trigger is Rs.93.00, the limit price is Rs.95.00 and the market (last traded) price is Rs.90.00, then this order is released into the system once the market price reaches or exceeds Rs.93.00. This order is added to the regular lot book with time of triggering as the time stamp, as a limit order of Rs.95.00.

All stop loss orders are kept in a separate book (stop loss book) in the system until they are triggered.

- (c) Trigger Price: Price at which an order gets triggered from the stop loss book.
- (d) Limit Price: Price of the orders after triggering from stop loss book.

### **(i) Other Conditions**

- (a) Proprietary (PRO) / Client (CLI): A user can enter orders on his own account or on behalf of clients. By default, the system assumes that the user is entering orders on the trading member's own account. The client account field is an alphanumeric field. It is mandatory to enter the client account number in the field provided in case the user enters orders on behalf of clients. The system will assign a code 'Cli' to such an order. The user cannot specify the trading member code in the client account field.
- (b) Participant Code: In case of "Pro" order by default, the system displays the trading member ID of the user in the participant field. In case of Cli order if "Participant ID" exist in client master maintenance the same will appear in participant field, else trading member ID will be reflected. Only a valid participant code can be entered. In case the participant is suspended, a message to this effect is displayed to the user on the order entry screen.

### **3.11.2 Order Modification**

All orders can be modified in the system till the time they do not get fully traded and only during market hours. Once an order is modified, the branch order value limit for the branch gets adjusted automatically. Following is the corporate hierarchy for performing order modification functionality:

- (a) A dealer can modify only the orders entered by him.
- (b) A branch manager can modify his own orders or orders of any dealer under his branch.
- (c) A corporate manager can modify his own orders or orders of all dealers and branch managers of the trading member firm.

The corporate manager/branch manager, however, cannot modify order details such that it exceeds the branch order value limit set for the day. Order modification cannot be performed by/for a trading member who is suspended or de-activated by the Exchange for any reason.

### **3.11.3 Order Cancellation**

Order cancellation functionality can be performed only for orders which have not been fully or partially traded (for the untraded part of partially traded orders only) and only during market hours and in pre-open period.

- **Single Order Cancellation**

Single order cancellation can be done during trading hours either by selecting the order from the outstanding order screen or from the function key provided. Order cancellation functionality is available for all book types. But the user is not allowed to cancel auction initiation and competitor orders in auction market.

- **Quick Order Cancellation**

Quick Order Cancellation (Cancel All) is an extension of Single Order Cancellation enabling a user to cancel multiple outstanding orders in various trading books subject to the corporate hierarchy. The different filters available for cancelling orders by using quick order cancellation facility are symbol, series, book type, branch, user, PRO/CLI, client account number and buy/sell. Quick order cancellation can be performed by invoking the function key provided and cannot be done from the outstanding orders screen. If the criterion is not found to be correct by a trading member then an error message is displayed and the focus is set on the incorrect field to enable the user to correct it. If the selection criterion is correct then a message appears on the quick order cancellation screen stating the number of buy and sell orders to be cancelled. Quick order cancellation can be done only during market hours.

- **Order Cancellation for Disabled Member**

The Exchange suspends a member from trading due to various reasons. In case a member is suspended from trading by the Exchange, all pending orders in all books of the member are immediately cancelled by the system. A message: "Order Number ..... cancelled due to suspension" is displayed at the message window screen at the trader workstation. Inquiry screens such as MBP, Market Watch and trader specific screens such as Outstanding Orders, Activity Log etc. get updated accordingly.

### **3.11.4 Order Matching**

The buy and sell orders are matched on Book Type, Symbol, Series, Quantity and Price.

#### *Pre-open Matching Priority*

The opening price is determined based on the principle of demand supply mechanism. The equilibrium price is the price at which the maximum volume is executable. In case more than one price meets the said criteria, the equilibrium price is the price at which there is minimum unmatched order quantity. In case more than one price has same minimum order unmatched quantity, the equilibrium price is the price closest to the previous day's closing price. In case the previous day's closing price is the mid-value of pair of prices which are closest to it, then the previous day's closing price itself will be taken as the equilibrium price. In case of corporate action, previous day's closing price is adjusted to the closing price or the base price. Both limit and market orders are reckoned for computation of equilibrium price. The equilibrium price determined in pre-open session is considered as open price for the day. In case if only market orders exists both in the buy and sell side, then order is matched at previous days close price or adjusted close price / base price. Previous day's close or adjusted close price / base price is the opening price. In case if no price is discovered in pre-open session, the price of first trade in the normal market is the open price.

#### *Matching Priority*

The best sell order is the order with the lowest price and a best buy order is the order with the highest price. The unmatched orders are queued in the system by the following priority:

- (a) Buy Price: A buy order with a higher price gets a higher priority and similarly, a sell order with a lower price gets a higher priority. E.g. Consider the following buy orders:
  - 1) 100 shares @ Rs. 35 at time 9:30 a.m.
  - 2) 500 shares @ Rs. 35.05 at time 9:43 a.m.

The second order price is greater than the first order price and therefore is the best buy order.

(b) By Time: If there is more than one order at the same price, the order entered earlier gets a higher priority. E.g. consider the following sell orders:

- 1) 200 shares @ Rs. 72.75 at time 9:30 a.m.
- 2) 300 shares @ Rs. 72.75 at time 9:35 a.m.

Both orders have the same price but they were entered in the system at different time.

The first order was entered before the second order and therefore is the best sell order.

As and when valid orders are entered or received by the system, they are first numbered, time stamped and then scanned for a potential match. This means that each order has a distinctive order number and a unique time stamp on it. If a match is not found, then the orders are stored in the books as per the price/time priority.

An active buy order matches with the best passive sell order if the price of the passive sell order is less than or equal to the price of the active buy order. Similarly, an active sell order matches with the best passive buy order if the price of the passive buy order is greater than or equal to the price of the active sell order.

#### *Regular Lot Matching*

- If the combined quantity of one or more matching orders on the opposite side of the regular lot book is equal to or more than the quantity of active order, the active order is *completely traded*.
- If the combined quantity of one or more matching orders on the opposite side of the regular lot book is equal to or less than the quantity of active order, the active order is *partially traded*.
- If after trading any quantity is left untraded, the order is added to the regular lot book in the price/time priority.
- The orders with the IOC attribute try to match maximum possible quantity after they are entered. Any remaining quantity is cancelled.
- The orders with DQ attribute disclose only a part of the total order quantity to the market.
- An active order with disclosed condition tries to maximise the quantity as possible regardless of the disclosed quantity i.e. a single trade takes place for a quantity more than the disclosed quantity.

If an active order with the disclosed quantity cannot trade its total quantity, it is added to the regular lot book in the price/time priority. The disclosed order quantity is determined as follows:

- a) If the remaining order quantity is less than or equal to the original disclosed quantity, the disclosed order quantity is set as equal to remaining order quantity.

- b) If the remaining order quantity is more than the original disclosed quantity, the disclosed order quantity is set to the original disclosed quantity.

Once an order with the disclosed quantity has become a passive order, it trades only in units of disclosed quantity or less. However, if there is no other competing order with the same price, a single trade of as much quantity as possible takes place between the two orders.

When the entire disclosed order quantity is fully traded the disclosed quantity gets replenished and this continues till the entire order quantity is fully traded. Each time the disclosed quantity is replenished; the order is stamped with the current trading time and added to the regular order book as fresh order.

#### *Stop Loss Matching*

All stop loss orders entered into the system are stored in the stop loss book. These orders can contain two prices:

- (a) **Trigger Price:** It is the price at which the order gets triggered from the stop loss book.
- (b) **Limit Price:** It is the price for orders after the orders get triggered from the stop loss book. If the limit price is not specified, the trigger price is taken as the limit price for the order. The stop loss orders are prioritised in the stop loss book with the most likely order to trigger first and the least likely to trigger last. The priority is same as that of the regular lot book.

The stop loss condition is met under the following circumstances:

- (a) **Sell Order:** A sell order in the stop loss book gets triggered when the last traded price in the normal market reaches or falls below the trigger price of the order.
- (b) **Buy Order:** A buy order in the stop loss book gets triggered when the last traded price in the normal market reaches or exceeds the trigger price of the order.

When a stop loss order with IOC condition enters the system, the order is released in the market after it is triggered. Once triggered, the order scans the counter order book for a suitable match to result in a trade or else is cancelled by the system.

#### *Auction Matching*

All auction orders are entered into the auction order book. The rules for matching of auctions are similar to that of the regular lot book except for the following points:

- (a) Auction order matching takes place at the end of the solicitor period for the auction.
- (b) Auction matching takes place only across orders belonging to the same auction.
- (c) All auction trades take place at the auction price.

### *Validation Check*

While matching orders, the system performs the validation check, if the participant of any of the orders is 'Suspended', the trade does not go through.

## **3.12 Trade Management**

A trade is an activity in which a buy and a sell order match with each other. Matching of two orders is done automatically by the system. Whenever a trade takes place, the system sends a trade confirmation message to each of the users involved in the trade. The trade confirmation slip gets printed at the trader workstation of the user with a unique trade number. The system also broadcasts a message to the entire market through the ticker window displaying the details of the trade.

This section describes trade-related activities like viewing the trades, trade cancellation, etc. Before the trade is effected, the system performs checks with respect to the following parameters:

- (a) The security in which the trade is to be effected is not suspended from operations.
- (b) Trading members involved in the potential trade are not suspended from operations.

Once the trade for an order entered is confirmed by the system, a message is sent to the trader workstation. The system generates a Trade Confirmation Slip that is printed on the printer of the trader workstation.

### **3.12.1 Trade Cancellation**

The user can use trade cancellation screen for cancelling trades done during the day. If the user is a corporate manager of a trading member firm, he can request for trade cancellation for the trades of any dealer of the trading members firm and if he is a branch manager of a branch, then he can request for trade cancellation for the trades for any dealer of the branch of the trading member firm.

The user can request for trade cancellation either from the previous trades screen or by using the function key provided in the workstation. The trade cancellation request is sent to the Exchange for approval and message to that effect is displayed in the message window. The counterparty to the trade also receives the message. The counterparty then has to make similar request on the same trading day. Once both the parties to trade send the trade cancellation request, the Exchange either approves or rejects it. The message to that effect is displayed in the message window.



### **3.13 Auction**

Auctions are initiated by the Exchange on behalf of trading members for settlement related reasons. The main reasons are shortages, bad deliveries and objections. There are three types of participants in the auction market:

- (a) Initiator: The party who initiates the auction process is called an initiator.
- (b) Competitor: The party who enters on the same side as of the initiator is called a competitor.
- (c) Solicitor: The party who enters on the opposite side as of the initiator is called a solicitor.

The trading members can participate in the Exchange initiated auctions by entering orders as a solicitor. e.g. If the Exchange conducts a buy-in auction, the trading members entering sell orders are called solicitors.

When the auction starts, the competitor period for that auction also starts. Competitor period is the period during which competitor order entries are allowed. Competitor orders are the orders which compete with the initiator's order i.e. if the initiator's order is a buy order, then all the buy orders for that auction other than the initiator's order are competitor orders. If the initiator order is a sell order then all the sell orders for that auction other than the initiators order are competitor orders. After the competitor period ends, the solicitor period for that auction starts. Solicitor period is the period during which solicitor order entries are allowed. Solicitor orders are the orders which are opposite to the initiator order i.e. if the initiator order is a buy order, then all the sell orders for that auction are solicitor orders and if the initiator order is a sell order, then all the buy orders for that auction are solicitor orders.

After the solicitor period, order matching takes place. The system calculates trading price for the auction and all possible trades for the auction are generated at the calculated trading price. After this the auction is said to be complete. Competitor period and solicitor period for any auction are set by the Exchange.

#### ***3.13.1 Entering Auction Orders***

Auction order entry allows the user to enter orders into auctions that are currently running. To view the information about currently running auctions 'Auction Inquiry' screen has to be invoked. Further one can view one's own outstanding orders for any auction by invoking 'Outstanding Order Inquiry' for auction market. All auction orders are valid for the trading day only.

The user can do auction order entry by entering 'AU' in the book type of the order entry screen. Symbol and Series that is currently selected in any of the market information windows (i.e. MW) provides the defaults in the auction order entry screen. If Auction Outstanding

Orders is up for an auction that is either in a competitor or solicitor period, then the auction number has to be entered. All fields in the auction order entry screen except auction number and settlement days are same as normal market order entry screen. The screen also displays competitor period and solicitor period.

The defaults that are provided on the auction inquiry screen are symbol, series, auction number, settlement days and quantity (available for auction). The user can edit the default values if required. The fields in the auction order entry screen that has to be entered are PRO/CLI selection, account number (not mandatory), participant and remarks.

Solicitor period for an auction starts as soon as the auction starts. The duration of the solicitor period is set by the Exchange. The system accepts the solicitor orders in any currently running auction only if the solicitor period for that auction is in progress. Currently, the trading members cannot initiate auctions in any security. They can only participate as solicitors in auctions initiated by the Exchange. In Exchange initiated auctions, the competitor period is set to zero and therefore only solicitor period is available.

**(i) Entering Solicitor Order:** To enter a solicitor order, auction order entry screen has to be invoked and the auction number or symbol series in AUC No. (auction number) field has to be entered. The AUC No. and symbol series combination is validated and if an error is encountered then an appropriate error message is displayed in the message window and the focus is set on the AUC No. When the order details are found to be correct, the system assigns a unique order number to the order and sends an order confirmation message to the trader workstation. If the solicitor period for that auction is over, the order is not accepted. Auction number for each security is displayed in the Auction Inquiry screen.

**(ii) Validation of Auction Orders:** Following validation checks are performed, in addition to the routine order entry validation checks, to verify initiator orders:

- (a) If the auction market is not open for trading, the user is not allowed to enter an auction order.
- (b) If a trading member or a participant is suspended, then no auctions can be entered for the trading member or for the participant.
- (c) If the security is not allowed to trade in the auction market or if the security is suspended, the orders for that security are not allowed.
- (d) If the quantity entered exceeds Warning Quantity Percentage, the system asks the user for confirmation of the order.
- (e) Any order with a price outside the Day Min/Max range is not allowed.

Following validation checks are performed to verify the competitor and the solicitor orders:

- (a) If a competitor order is entered, then a check is made if the auction in which order entry is desired is in the competitor period.
- (b) If a solicitor order is entered, then a check is made if the auction in which order entry is desired is either in competitor period or solicitor period.
- (c) The Trading Member cannot enter order for a security in which initiator order is entered against him.
- (d) Auction order entry in auctions which are yet in a pending state or which are cancelled is prohibited.

### **3.13.2 Auction Order Modification**

The user is not allowed to modify any auction orders.

### **3.13.3 Auction Order Cancellation**

The user can cancel any solicitor order placed by him in any auction provided the solicitor period for that auction is not over. The order cancellation procedure is similar to that of normal market. The user can also use quick order cancellation key to cancel his outstanding auction orders.

### **3.13.4 Auction Order Matching**

When the solicitor period for an auction is over, auction order matching starts for that auction. During this process, the system calculates the trading price for the auction based on the initiator order and the orders entered during the competitor and the solicitor period. Currently, for Exchange initiated auctions, the matching takes place at the respective solicitor order prices.

Example:

Auction is held in XYZ for 5,000 shares. The closing price of XYZ on that day was Rs. 155. The last traded price of XYZ on that day was Rs. 150. The price of XYZ last Friday was Rs. 151. The previous day's close price of XYZ was Rs. 160. What is the maximum allowable price at which the member can put a sell order in the auction for XYZ? (The price band applicable for auction market is +/- 20%)

Maximum price applicable in auction=Previous day's close price\*(100+price band)

= Rs. 160\*1.20

= Rs. 192

Minimum price applicable in auction=Previous day's close price\*(100-price band)

### **3.14 Limited Physical Market**

Pursuant to the directive of SEBI to provide an exit route for small investors holding physical shares in securities mandated for compulsory dematerialised settlement, the Exchange has provided a facility for such trading in physical shares not exceeding 500 shares. This market segment is referred to as 'Limited Physical Market' (small window). The Limited Physical Market was introduced on June 7, 1999.

#### ***3.14.1 Salient Features of Limited Physical Market***

- (a) Trading is conducted in the Odd Lot market (market type 'O') with Book Type 'OL' and series 'BT'.
- (b) Order quantities should not exceed 500 shares.
- (c) The base price and price bands applicable in the Limited Physical Market are same as those applicable for the corresponding Normal Market on that day.
- (d) Trading hours are the same as that of the normal market.
- (e) Settlement for all trades is done on a trade-for-trade basis and delivery obligations arise out of each trade.
- (f) Orders get matched when both the price and the quantity match in the buy and sell order. Orders with the same price and quantity match on time priority i.e. orders which have come into the system before will get matched first.
- (l) Trading Members are required to ensure that shares are duly registered in the name of the investor(s) before entering orders on their behalf on a trade date.

### **3.15 Block Trading Session**

The Exchange has introduced a separate trading session for the block trades from November 14, 2005. In this session, trading is conducted in the Odd Lot market (market type 'O') with Book Type 'OL' and series 'BL'. It is a 35 minute market; i.e. the trading window shall normally remain open from 9:15 hours to 9:50 hours. There is no pre-open and post close in the block trade session. For a block trade, order should be of a minimum quantity of 5,00,000 shares or minimum value of Rs 5 crore which ever is lower. Orders get matched when both the price and the quantity match for the buy and sell order. Orders with the same price and quantity are matched on time priority i.e. orders which have come into the system before will get matched first. The securities, base price, alert quantity applicable in the block trade session are same as those applicable for the corresponding Normal Market on that day. As per SEBI requirement, member is required to put orders at a price not exceeding (+/-) 1% from the previous close price/ruling market price, as applicable, of normal market. Accordingly, every order price is validated for (+/-) 1% on the ruling LTP in normal market and any order away from this will

be rejected by the system. Currently, market order is not allowed for BL series. Order with special terms such as 'Stop Loss', 'Disclosed Quantity' is not available in this session

### 3.17 Trading information downloaded to Members

The Exchange downloads certain trading related reports and files to the trading member on a regular basis. Following is the list of reports and files downloaded to the members.

- (i) **On-line Backup:** The files are Trade.txt and Order.txt or file with user defined name. Member can take on-line backup of orders and trades for the current trading day only. The backup can be taken during market hours and till approximately 1 hour after the market close time.
- (ii) **Trader messages in Full message display:** Full message area contains member's own order and trade information across all securities. It is available for current trading day only. An option to save as a text file is also provided. The trading members are required to keep copy of full message area for a period as per NSE regulations. Refer to section Full Message Display screen.
- (iii) **Bhav copy:** Bhav copy is downloaded in \nsecmtdr\reports directory on a daily basis. It is downloaded two times after market close. First bhav copy (Interim bhav copy) downloaded approximately 20 minutes after the market close time. The second bhav copy (final bhav copy) downloaded 20 minutes after the post close market. The interim bhav copy is overwritten by final bhav copy. Users are advised to check for message to this effect. The files downloaded are ddmmxxxx.ms and ddmmxxxx.md where xxxx is the user id. The ms extension file is formatted txt file whereas the md extension file has bhav copy records in csv (comma separated value) format. Only the last seven bhav copy files are stored in the reports directory. When bhav copy is broadcast, the system checks for the number of bhav copy files. If it is seven the system deletes the earliest received file and stores the current day's file.
- (iv) **Security Information:** The Exchange downloads on a daily basis the following files for the members to update their local database for NEAT front end. These files are required to be unzipped and uploaded in their respective trading software by the members on a daily basis.

Sr	File Name	Content
1	security.zip	security.txt
2	participant.zip	participant.txt
3	FreeFloat.txt	FreeFloat.txt

- (v) **Circulars:** Circulars as and when issued by NSE, are available to members on the website.
- (vi) **Order/Trade slips:** The order/trade slips are Confirmation/Modification/ Cancellation/ Rejection slips. The trade and order slips are generated on-line. The trade confirmation is generated when a trade is executed and order slip when a member places an order. The option at the supplementary menu 'Print Trade and Order confirmation' should be set 'ON'. Members can also take print of confirmation slips at the end of the day from the reprint option in the supplementary menu. The trading members are required to keep copy of the trade confirmation slip for a period as per NSE regulations.
- (vii) **Reports:** Once the market closes, the details of trading activities done by the user are generated as trade reports. They are downloaded on the workstation of Corporate/ Branch manager. Downloaded reports are stored at the workstation as well as sent to the printer. This allows the user to reprint any report any time. The reports that are available to the trading member are Market Statistics and Market Indices.
- (viii) **Market Statistics:** The purpose of this report is to show the market statistics of that trading day. This report gives details related to all the securities traded on that day for all markets.
- (ix) **Market Indices:** A separate Market Indices Report is also disseminated to members which contains details regarding the Open, High, Low, Close, Previous Close and % change over the Previous Close of Nifty 50, Nifty50 PR 1x Inverse, Nifty100 Liquid 15, Nifty Services Sector, Nifty Midcap 50, Nifty Dividend Opportunities 50, Nifty Free Float Smallcap 100, Nifty PSE, Nifty MNC, Nifty Infrastructure, Nifty FMCG, Nifty Energy, Nifty Bank, Nifty 100, Nifty50 TR 1x Inverse, Nifty 11-15 yr G-Sec Index, Nifty 200, India VIX, Nifty 15 yr and above G-Sec Index, Nifty Auto, Nifty Media, Nifty Quality 30, Nifty PSU Bank, Nifty Metal, Nifty 500, Nifty IT, Nifty Commodities, Nifty CPSE, Nifty Financial Services, Nifty Pharma, Nifty Midcap Liquid 15, Nifty Free Float Midcap 100, Nifty50 PR 2x Leverage, Nifty Next 50, Nifty India Consumption, Nifty Growth Sectors 15, Nifty 4-8 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec (Clean Price) Index, Nifty Composite G-Sec Index, Nifty50 TR 2x Leverage, Nifty50 Value 20, Nifty Realty, Nifty 8-13 yr G-Sec Index, Nifty 10 yr Benchmark G-Sec Index, Nifty50 Dividend Points and Nifty Private Bank.

Trade Verification: A facility to verify trades is available on the NSE website. Using this facility, an investor who has received a contract note from a trading member of the Exchange, can check whether the trade has been executed on the Exchange. This facility is available on the NSE website for the Capital Market segment and F&O (Derivatives) segment.

### **3.18 Internet Broking**

SEBI Committee approved the use of Internet as an Order Routing System (ORS) for communicating clients' orders to the Exchanges through brokers. ORS enables investors to place orders with his broker and have control over the information and quotes and to hit the quote on an on-line basis. Once the broker's system receives the order, it checks the authenticity of the client electronically and then routes the order to the appropriate Exchange for execution. On execution of the order, it is confirmed on real time basis. Investor receives reports on margin requirement, payments and delivery obligations through the system. His ledger and portfolio account get updated online.

NSE was the first stock exchange in India to launch internet trading in early February 2000. It provides web-based access to investors to trade directly on the Exchange. The orders originating from the PCs of the investors are routed through the Internet to the trading terminals of the designated brokers with whom they are connected and further to the Exchange for trade execution. Soon after these orders get matched and result into trades, the investors get confirmation about them on their PCs through the same internet route.

### **3.19 Co-location**

The term "co-location/proximity hosting services" means space, power, telecommunications, and other ancillary products and services made available to market participants for the purpose of enabling them to position their computer systems/servers in close proximity to the transaction execution facility (at the Exchange). Exchanges internationally are introducing co-location services to support high frequency trading using Algorithmic Trading (ALGO) and Direct Market Access (DMA). In keeping with the global trends and maintaining high service excellence, NSE started co-location facility in Jan 2010. The state-of-the-art co-location facility at NSE provides one of the most modern datacenter facilities.

### **3.20 Wireless Application Protocol (WAP)**

SEBI has also approved trading through wireless medium on WAP Platform. NSE-IT launched the Wireless Application Protocol (WAP) in November 2000. This provides access to its order book through the hand held devices, which use WAP technology. This serves primarily retail investors who are mobile and want to trade from any place when the market prices for stocks at their choice are attractive. Only SEBI registered members who have been granted permission by the Exchange for providing internet based trading services can introduce the service after obtaining permission from the Exchange.

# CHAPTER 4: CLEARING, SETTLEMENT AND RISK MANAGEMENT

## 4.1 Introduction

After a trade is executed, it needs to be settled. The clearing and settlement mechanism in Indian securities market has witnessed significant changes and several innovations during the last decade. These include use of the state-of-art information technology, emergence of clearing corporations to assume counterparty risk, shorter settlement cycle, dematerialization, electronic transfer of securities and fine-tuned risk management system.

Till January 2002, the stock exchanges in India were following a system of account period settlement for cash market transactions. An account period settlement is a settlement where the trades pertaining to a period stretching over more than one day are settled. For example, trades for the period Monday to Friday are settled together. The obligations for the account period are settled on a net basis.

Instead of the account period settlement, T+2 rolling settlement was introduced for all securities. Rolling settlement refers to the settling of trades at a standard fixed period of days after the execution occurred. In a rolling settlement, 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.

## 4.2 Key terminologies used in Clearing and Settlement Process

Pay-in day is the day when the trading members/brokers are required to make payment of funds or delivery of securities to the clearing corporation of the Exchange for all transactions traded by or through them in the respective settlement period.

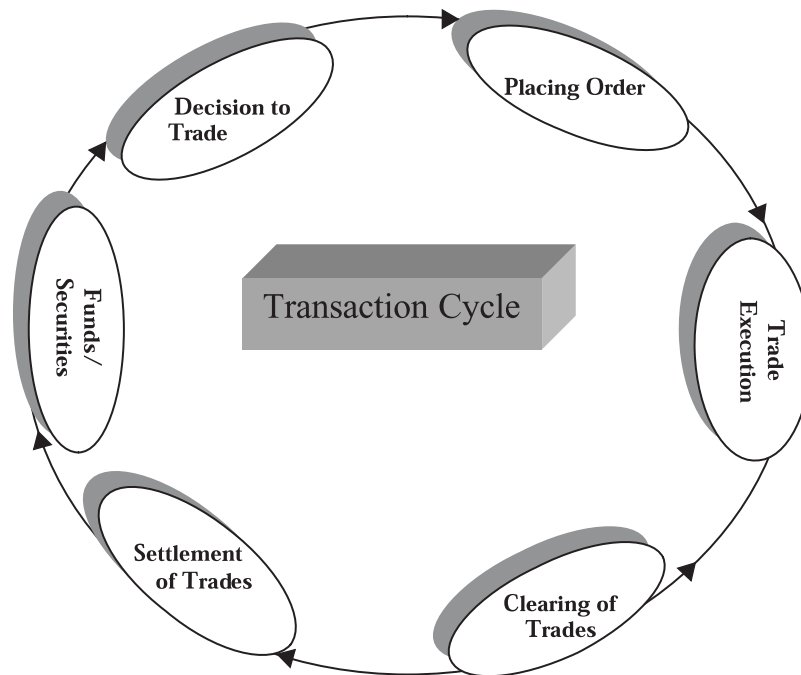
- (a) Securities Pay-in: The process of delivering securities to the clearing corporation to effect settlement of a sale transaction.
- (b) Funds Pay-in: The process of transfer of funds to the clearing corporation to pay for purchase transactions.

Pay-out day is the day when the clearing corporation of the stock exchange transfers funds and securities to the broker/trading member who have receivable obligation.

- (a) Securities Pay-out: The process of receiving securities from the clearing corporation to complete the securities settlement of a purchase transaction.
- (b) Funds Pay-out: The process of transfers of funds from the clearing corporation to complete the funds settlement of a sale transaction.



### 4.3 Transaction Cycle



**Figure 4.1: Transaction cycle**

#### Steps in Transaction Cycle

- (a) A person holding assets (securities/funds), either to meet his liquidity needs or to reshuffle his holdings in response to changes in his perception about risk and return of the assets, decides to buy or sell the securities.
- (b) He selects a broker and instructs him to place buy/sell order on an exchange.
- (c) The order is converted to a trade as soon as it finds a matching sell/buy order.
- (d) At the end of the trade cycle, the trades are netted to determine the obligations of the trading members to deliver securities/funds as per settlement schedule.
- (e) Buyer (seller) delivers funds (securities) and receives securities (funds) and acquires ownership of the securities. A securities transaction cycle is presented in Figure 4.1.

### 4.4 Settlement Agencies

The roles of several entities involved in the process of clearing and settling the trades executed on Exchanges are explained below:

- (i) **Clearing Corporation (NSCCL):** The NSCCL is responsible for post-trade activities of a stock exchange. Clearing and settlement of trades and risk management are its central functions. It clears all trades, determines obligations of members, arranges for pay-in of funds/securities, receives funds / securities, processes for shortages in

funds/ securities, arranges for pay-out of funds/securities to members, guarantees settlement, and collects and maintains margins / collateral/ base capital / other funds.

- (ii) Clearing Members:** They are responsible for settling their obligations as determined by the NSCCL. They have to make available funds and/or securities in the designated accounts with clearing bank/depository participant, as the case may be, to meet their obligations on the settlement day. In the capital market segment, all trading members of the Exchange are required to become the Clearing Member of the Clearing Corporation.
- (iii) Custodians:** A custodian is an entity who is responsible for safeguarding the documentary evidence of the title to property like share certificates, etc. The title to the custodian's property remains vested with the original holder, or in their nominee(s), or custodian trustee, as the case may be. In NSCCL, custodian is a clearing member but not a trading member. The custodian settles trades assigned by trading members. The custodian is required to confirm whether it is going to settle a particular trade or not. If it is confirmed, the NSCCL assigns that obligation to that custodian and the custodian is required to settle it on the settlement day. If the custodian rejects the trade, the obligation is assigned back to the trading / clearing member.
- (iv) Clearing Banks:** Clearing banks are a key link between the clearing members and NSCCL for funds settlement. Every clearing member is required to open a dedicated settlement account with one of the clearing banks. Based on his obligation as determined through clearing, the clearing member makes funds available in the clearing account for the pay-in and receives funds in case of a pay-out. Multiple clearing banks provide advantages of competitive forces, facilitate introduction of new products viz. working capital funding, anywhere banking facilities, the option to members to settle funds through a bank, which provides the maximum services suitable to the member.

#### *Functions of Clearing Banks*

The clearing banks are required to provide the following services as a single window to all clearing members of National Securities Clearing Corporation Ltd. as also to the clearing corporation:

- (a) Branch network in cities that cover bulk of the trading cum clearing members
- (b) High level automation including Real time gross settlement (RTGS)<sup>8</sup> and electronic funds transfer (EFT) facilities

---

<sup>8</sup> Real Time Gross Settlement (RTGS) is the concept designed to achieve sound risk management in the settlement of interbank payments. Transactions are settled across accounts held at the Central Bank on a continuous gross basis where settlement is immediate, final and irrevocable.

- (c) Facilities like (i) dedicated branch facilities (ii) software to interface with the clearing corporation (iii) access to accounts information on a real time basis
  - (d) Value-added services to members such as free-of-cost funds transfer across centers etc.
  - (e) Providing working capital funds.
  - (f) Services as Depository Participants (an agent of the depository through which it interfaces with the investor).
  - (h) Other Capital Market related facilities
  - (i) All other banking facilities like issuing bank guarantees / credit facilities etc.
- (v) Depositories:** A depository is an entity where the securities of an investor are held in electronic form. The person who holds a demat account is a beneficiary owner. In case of a joint account, the account holders are beneficiary holders of that joint account. Depositories help in the settlement of the dematerialised securities. Each custodian/clearing member is required to maintain a clearing pool account with the depositories. He is required to make available the required securities in the designated account on settlement day. The depository runs an electronic file to transfer the securities from accounts of the custodians/clearing member to that of NSCCL. As per the schedule of allocation of securities determined by the NSCCL, the depositories transfer the securities on the pay-out day from the account of the NSCCL to those of members/custodians.

## **4.5 Clearing and Settlement Process**

While NSE provides a platform for trading to its trading members, the National Securities Clearing Corporation Ltd. (NSCCL) determines the funds/securities obligations of the trading members and ensures that trading members meet their obligations. NSCCL becomes the legal counterparty to the net settlement obligations of every member. This principle is called 'novation' and NSCCL is obligated to meet all settlement obligations, regardless of member defaults, without any discretion. Once a member fails on any obligations, NSCCL immediately cuts off trading and initiates recovery.

### **4.5.1 Clearing Process**

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

At the end of each trading day, concluded or locked-in trades are received from NSE by NSCCL. NSCCL determines the cumulative obligations of each member and electronically transfers the data to Clearing Members (CMs). This implies that all trades concluded during a particular trading period are settled together. A multilateral netting procedure is adopted to determine the net settlement obligations (delivery / receipt positions) of CMs. NSCCL then allocates or assigns delivery of securities inter se the members to arrive at the delivery and receipt obligation of funds and securities by each member.

#### **4.5.2 Settlement Process**

The settlement process begins as soon as member's obligations are determined through the clearing process. The clearing banks and depositories provide the necessary interface between the custodians/clearing members (who clear for the trading members or their own transactions) for settlement of funds/securities obligations of trading members. The clearing corporation provides a major link between the clearing banks, clearing members and the depositories. This link ensures actual movement of funds and securities on the prescribed pay-in and payout day. The core processes involved in the settlement process are:

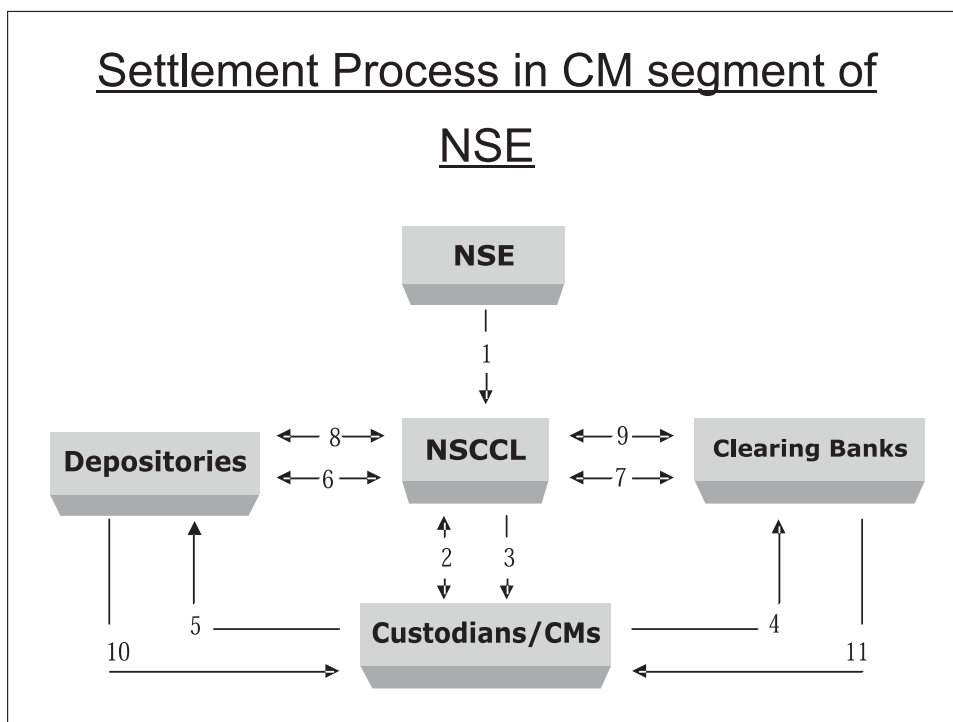
- (i) *Pay-in of Funds and Securities:* The members bring in their funds/securities to the NSCCL. They make available required securities in designated accounts with the depositories by the prescribed pay-in time. The depositories move the securities available in the accounts of members to the account of the NSCCL. Likewise members with funds obligations make available required funds in the designated accounts with clearing banks by the prescribed pay-in time. The NSCCL sends electronic instructions to the clearing banks to debit member's accounts to the extent of payment obligations. The banks process these instructions, debit accounts of members and credit accounts of the NSCCL.
- (ii) *Pay-out of Funds and Securities:* After processing for shortages of funds/securities and arranging for movement of funds from surplus banks to deficit banks through RBI clearing, the NSCCL sends electronic instructions to the depositories/clearing banks to release pay-out of securities/funds. The depositories and clearing banks debit accounts of NSCCL and credit settlement accounts of members. Settlement is complete upon release of pay-out of funds and securities to custodians/members.

Settlement is deemed to be complete upon declaration and release of pay-out of funds and securities. Exceptions may arise because of short delivery of securities by CMs, bad deliveries or company objections on the pay-out day. (The detailed explanation of securities and funds settlement follows in the later section).

NSCCL identifies short deliveries (discussed later) and conducts a buying-in auction on the day after the pay-out day through the NSE trading system. The delivering CM is debited by an

amount equivalent to the securities not delivered and valued at a valuation price (the closing price as announced by NSE on the day previous to the day of the valuation). If the buy-in auction price is more than the valuation price, the CM is required to make good the difference. All shortages not bought-in are deemed closed out at the highest price between the first day of the trading period till the day of squaring off or closing price on the auction day plus 20%, whichever is higher. This amount is credited to the receiving member's account on the auction pay-out day.

The settlement process for transactions in securities in the CM segment of NSE is presented in the Figure 4.2.



**Figure 4.2: Settlement Process in CM segment of NSE Explanation:**

- (1) Trade details from Exchange to NSCCL (real-time and end of day trade file).
- (2) NSCCL notifies the consummated trade details to CMs/custodians who affirm back. Based on the affirmation, NSCCL applies multilateral netting and determines obligations.
- (3) Download of obligation and pay-in advice of funds/securities.
- (4) Instructions to clearing banks to make funds available by pay-in time.
- (5) Instructions to depositories to make securities available by pay-in-time.
- (6) Pay-in of securities (NSCCL advises depository to debit pool account of custodians/CMs and credit its account and depository does it).
- (7) Pay-in of funds (NSCCL advises Clearing Banks to debit account of custodians/CMs and credit its account and clearing bank does it).

- (8) Pay-out of securities (NSCCL advises depository to credit pool account of custodians/CMs and debit its account and depository does it).
- (9) Pay-out of funds (NSCCL advises Clearing Banks to credit account of custodians/CMs and debit its account and clearing bank does it).
- (10) Depository informs custodians/CMs through DPs.
- (11) Clearing Banks inform custodians/CMs.

#### **4.5.3 Settlement Cycle**

Settlement cycles for securities in dematerialised and physical mode is explained below:

##### **Settlement Cycle For Dematerialised Securities**

- (i) **Normal Market:** The trades executed each trading day are considered as a trading period and trades executed during the day are settled based on the net obligations for the day. At NSE, trades in rolling settlement are settled on a T+2 basis i.e. on the 2<sup>nd</sup> working day. Typically trades taking place on Monday are settled on Wednesday, Tuesday's trades settled on Thursday and so on.

A tabular representation of the settlement cycle for rolling settlement is given below in Table 4.1:

**Table 4.1: Settlement Cycle – Normal Market**

	<b>Activity</b>	<b>Day</b>
Trading	Rolling Settlement Trading	T
Clearing	Custodial Confirmation	T+1 working days
	Delivery Generation	T+1 working day
Settlement	Securities and Funds pay-in	T+2 working days
	Securities and Funds pay-out	T+2 working days
	Valuation of shortages based on closing prices (at T+1 closing prices)	T+2 working days
Post Settlement	Auction	T+2 working days
	Auction settlement	T+3 working days
	Bad Delivery Reporting	T+4 working days
	Rectified bad delivery pay-in and pay-out	T+6 working days
	Re-bad delivery reporting and pickup	T+8 working days
	Close out of re-bad delivery and funds pay-in & pay-out	T+9 working days

- (ii) **Inter Institutional Deals:** Trading in this market segment is available for 'institutional investors' only. In order to ensure that the overall FII limits are not violated, buying and selling in this segment is restricted to specific clients. Members are required

to enter the custodian participant code at the time of order entry and to ensure that the selling/buying restrictions are strictly adhered to. A sell order entered by trading members on behalf of clients other than GDR/ADR/FDI/NRI/PIO/FII or a buy order entered by trading members on behalf of client other than (GDR/ADR/FDI/NRI/PIO/FII/FI/Banks/Mutual Funds/Insurance Companies, is deemed to be invalid. The member entering the invalid order is further liable for disciplinary action, which may include penalties, penal action, withdrawal of trading facilities, suspension etc.

Deals executed in this segment are cleared on a T+2 rolling basis. Settlement of all transactions is compulsorily in demat mode only.

The settlement cycle for this segment is shown below in Table 4.2:

**Table 4.2: Settlement Cycle – Inter Institutional Deals**

	<b>Activity</b>	<b>Day</b>
<i>Trading</i>	Rolling Settlement Trading	T
<i>Clearing</i>	Custodial Confirmation	T+1 working days
	Delivery Generation	T+1 working days
<i>Settlement</i>	Securities and Funds pay-in	T+2 working days
	Securities and Funds pay-out	T+2 working days
	Valuation of shortages based on	
	closing prices	at T+1 closing prices
<i>Post Settlement</i>	Close out	T+2 working days

#### *Settlement Cycle For Physical Securities*

Limited Physical Market: For limited physical markets, settlement for trades is done on a trade-for-trade basis and delivery obligations arise out of each trade.

Salient features of Limited Physical Market settlement are:

- (a) Delivery of shares in street name and market delivery (clients holding physical shares purchased from the secondary market) is treated as bad delivery. The shares standing in the name of individuals/HUF only would constitute good delivery. The selling/delivering member must necessarily be the introducing member.
- (b) Any delivery of shares which bears the last transfer date on or after the introduction of the security for trading in the LP market is construed as bad delivery.
- (c) Any delivery in excess of 500 shares is marked as short and such deliveries are compulsorily closed-out.
- (d) Shortages, if any, are compulsorily closed-out at 20% over the actual traded price. Unrectified bad delivery and re-bad delivery are compulsorily closed-out at 20% over the actual traded price.

- (e) All deliveries are compulsorily required to be attested by the introducing/ delivering member.
- (f) The buyer must compulsorily send the securities for transfer and dematerialisation, latest within 3 months from the date of pay-out.
- (g) Company objections arising out of such trading and settlement in this market are reported in the same manner as is currently being done for normal market segment. Securities, however, would be accepted as valid company objection, only if the securities are lodged for transfer within 3 months from the date of pay-out.

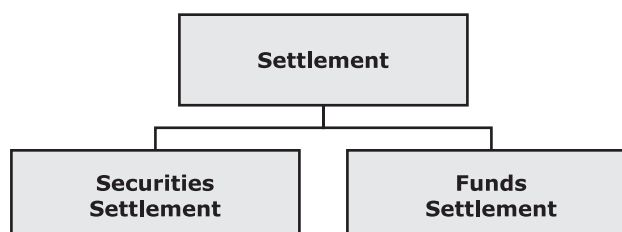
The settlement cycle for this segment is same as for the rolling settlement, as shown in Table 4.3 below:

**Table 4.3: Settlement Cycle – Physical Securities**

	<b>Activity</b>	<b>Day</b>
<i>Trading</i>	Rolling Settlement Trading	T
<i>Clearing</i>	Custodial Confirmation	T+1 working days
	Delivery Generation	T+1 working days
<i>Settlement</i>	Securities and Funds pay-in	T+2 working days
	Securities and Funds pay-out	T+2 working days
<i>Post Settlement</i>	Assigning of shortages for close out	T+2 working days
	Reporting and pick-up of bad delivery	T+4 working days
	Close out of shortages	T+4 working days
	Replacement of bad delivery	T+6 working days
	Reporting of re-bad and pick-up	T+8 working days
	Close out of re-bad delivery	T+9 working days

## 4.6 Securities and Funds Settlement

Settlement is done from two aspect- Securities settlement and Funds settlement (Figure 4.3) These are discussed below.



**Figure 4.3: Types of Settlement**



#### **4.6.1 Securities Settlement**

- (a) The securities obligations of members are downloaded to members/custodians by NSCCL after the end of the trading day.
- (b) The members / custodians deliver the securities to the clearing corporation on the pay-in day in case of physical settlement and make available the required securities in the pool accounts with the depository participants in case of dematerialised securities.
- (c) Members are required to open accounts with depository participants of both the depositories, NSDL and CDSL. Delivering members are required to deliver all documents to the clearing corporation (in case of physical settlement) between 9:30 a.m. and 10:30 a.m. on the settlement day. Receiving members are allotted specific time slots on settlement day to collect the documents from the clearing corporation at Mumbai. In case of dematerialised settlement, the members receive their obligation by 2.30 pm on T + 1 day. The members need to arrange for the securities as per their obligations and give instructions by 10.30 am on the pay-in day.
- (d) In case of NSDL, the members need to give instructions to move the securities to the settlement account of NSCCL, whereas in case of CDSL pay-in is done based on settlement ID through in which members are required to provide separate balances for each settlement.
- (e) The members need to ensure that the settlement number and type are correctly entered to avoid any defaults.
- (f) Pursuant to SEBI directive<sup>9</sup>, NSCCL has introduced a settlement system for direct delivery of securities to the investors accounts with effect from April 2, 2001. This facility is known as Direct Payout to Investors which is explained below.

##### *Direct Payout to Investors*

NSCCL has introduced the facility of direct payout (i.e. direct delivery of securities) to clients' account on both the depositories. It ascertains from each clearing member, the beneficiary account details of their respective clients who are due to receive pay out of securities. Based on the information received from members, the clearing corporation sends payout instructions to the depositories, so that the client receives the pay out of securities directly to their accounts on the pay-out day. The client receives payout to the extent of instructions received from the respective clearing members. To the extent of instruction not received, the securities are credited to the CM pool account of the member. Following are the salient features of 'Direct Payout' to Investors

---

<sup>9</sup> vide its circular SMDRP/Policy/Cir-05/2001 dated February 1, 2001

- (a) Clearing members are required to provide a file to NSCCL for effecting pay out to investors' accounts for a particular settlement type, settlement number and delivery type. The file is to be provided as per the structure specified by NSCCL.
- (b) The time limit for submission of files is up to 9.30.am on the pay out day
- (c) The files are uploaded by NSCCL in its system and returned with the indication of the success/rejection of the file and the records. This is purely a validation of the correctness of the file and record formats.
- (d) Clearing members should provide details of beneficiary account of the clients of the trading members in any one of the depositories.
- (e) Credit to the accounts of various constituents (i.e. client account and CM Pool / CM Clearing account) would be in the same order as specified by the clearing member in the file given to NSCCL.
- (f) If for any client account record, the quantity requested for direct payout is more than the balance available for pay out to the clearing member in that depository, the quantity available in that depository is directly credited to members settlement account in that depository. If the member receives entire shares in NSDL the same will be transferred to members pool account in NSDL.
- (g) In the following situations, the pay out is credited to CM Pool / Clearing account of the clearing members :
  - Where the clearing members fail to provide the details of the beneficiary account or where the credit to the beneficiary accounts of the clients fail, or any account whatsoever.
  - The remaining quantity received from other depository as pay out is credited to the CM Pool / Clearing account of the clearing member with the respective depositories
- (h) If the member's client has not paid the dues to the member for the said securities or for any other reason, the member has valid justification not to release the payout of a client direct in such a situation the member may not be giving the beneficiary account details of such client's in the file. In case the investor has paid the dues for delivery of securities and there is no valid justification for not releasing pay-out directly to the client, the member has to provide the details of its clients beneficiary account so that direct credit can be given to the client.

#### *Problems pertaining to Securities Settlement*

Broadly, there exist three types of settlement problems pertaining to securities settlement:

- (i) Short Deliveries: A short delivery/failed delivery takes place when a broker, a custodian

or the clearing corporation delivers fewer securities than what were contracted for either to another broker, a custodian or the clearing corporation. On the securities pay-in day, clearing member communicate to the clearing corporation about the securities that he will be able to deliver and those securities which he will not be able to deliver. Also informs an amount equivalent to the securities not delivered by him valued at the valuation price (the closing price on the day previous to the day of valuation). This is called valuation debit. A valuation debit is also conducted for bad delivery by clearing members. This problem can arise in case of both physical and dematerialized settlement. (Valuation debit is explained in the later section)

- (ii) **Bad Deliveries:** Bad deliveries (deliveries which are prima facie defective) are required to be reported to the clearing corporation within two days from the receipt of documents. The delivering member is required to rectify these within two days. Un-rectified bad deliveries are assigned to auction on the next day. This problem can arise only in case of physical settlement.
- (iii) **Company Objections:** Company objections arise when documents for securities transfer are returned due to signature mismatch or for any other reason. The original selling CM is normally responsible for rectifying/replacing defective documents to the receiving CM as per pre-notified schedule. The CM on whom company objection is lodged has an opportunity to withdraw the objection if the objection is not valid or the documents are incomplete (i.e. not as required under Guideline No.100 or 109 of SEBI Good/Bad delivery guidelines), within 7 days of lodging the complaint against him. If the CM is unable to rectify/replace defective documents on or before 21 days, NSCCL conducts a buying-in auction for the non-rectified part of defective document on the next auction day through the trading system of NSE. All objections, which are not bought-in, are deemed closed out on the auction day at the closing price on the auction day plus 20%. This amount is credited to the receiving member's account on the auction pay-out day.

#### **4.6.2 Funds Settlement**

Currently, NSCCL (the clearing corporation) offers settlement of funds through the clearing banks appointed by it. Every clearing member is required to maintain and operate a clearing account with any one of the empanelled clearing banks at the designated clearing bank branches. NSCCL has empanelled 13 clearing banks namely Axis Bank Ltd., Bank of India, Canara Bank, Citibank N.A, HDFC Bank, Hongkong & Shanghai Banking Corporation Ltd., ICICI Bank, IDBI Bank, IndusInd Bank, Kotak Mahindra Bank, Standard Chartered Bank, State Bank of India and Union Bank of India. The clearing account is to be used exclusively for clearing & settlement operations.

### *Clearing Account*

Every clearing member is required to maintain and operate a clearing account with any one of the empanelled clearing banks at the designated clearing bank branches. The clearing account is to be used exclusively for clearing operations i.e., for settling funds and other obligations to the clearing corporation including payments of margins and penal charges. Clearing members are required to authorise the clearing bank to access their clearing account for debiting and crediting their accounts, reporting of balances and other information as may be required by NSCCL from time to time as per the specified format. The clearing bank will debit/ credit the clearing account of clearing members as per instructions received from the clearing corporation. A clearing member can deposit funds into this account in any form, but can withdraw funds from this account only in self-name.

### *Change in Clearing Bank*

In case a clearing member wishes to shift a clearing account from one designated clearing bank to another, the procedure is as follows:

- (a) The CM clearing member while requesting the clearing corporation for a change in the clearing bank account should either:
  - (i) Furnish the no objection certificate (NOC) received by the member from the existing clearing bank for shifting of account, or
  - (ii) In case no response was received by the clearing member from the existing clearing bank in respect of the NOC request even after a minimum waiting period of a fortnight, a declaration to the above effect along with an acknowledged copy of the NOC request made by the member to the existing clearing bank.
- (b) The clearing corporation would thereon issue a letter of introduction to the other designated clearing bank.
- (c) On opening the account with the other designated clearing bank, the clearing member should submit to the clearing corporation, the account particulars issued by the bank and also the acknowledged copy of the letter issued by the clearing member to the clearing bank.
- (d) The clearing corporation should thereon communicate the date from which the new clearing account will be operational and also the date after which the existing clearing account may be closed by the clearing member.

### *Settlement of Funds*

- (a) Members are informed of their funds obligation for various settlements through the daily clearing data download. The daily funds statement gives date-wise details of each debit/ credit transaction in the member's clearing account whereas the summary statement summarises the same information for a quick reference.

- (b) The member account may be debited for various types of transactions on a daily basis. The member is required to ensure that adequate funds are available in the clearing account towards all obligations, on the scheduled date and time. The member can refer to his various obligation statements and provide for funds accordingly.
- (c) To ensure timely fulfillment of funds obligations, members may avail of the facility of standing instructions to transfer the requisite amount from some other account to the clearing account or a temporary overdraft facility from the bank. In case the member has availed such a facility, the member may furnish details of his obligation to the bank to ensure timely transfer of funds towards the same to avoid inconvenience.
- (d) The member with a funds pay-in obligation is required to have clear funds in his account on or before 11.00 a.m. on the scheduled pay-in day.
- (e) The payout of funds is credited to the clearing account of the members on or after 1.30 p.m. on the scheduled payout day.

#### *Funds shortages*

In case there is a funds shortage of a particular specific value, trading is not permitted and securities payout is withheld as per the norms in place from time to time.

#### *Penal Charges*

Penalties are charged to members for:

- (a) Failure to fulfill their funds obligations
- (b) Failure to fulfill their securities deliverable obligations
- (c) Margin Shortages
- (d) Security Deposit Shortages
- (e) Other violations in respect of client code modifications, non-confirmation of custodial trades, company objections reported against the members' etc.

### **4.7 Shortages Handling**

On the securities pay-in day, NSCCL identifies short deliveries and the respective clearing member is debited by an amount equivalent to the securities not delivered by him and valued at a valuation price. This is called a valuation debit. A valuation debit is also conducted for bad delivery by clearing members.

NSCCL conducts a buying-in auction for security shortages on the day after the pay-out day through the NSE trading system. If the buy-in auction price is more than the valuation price, the member is required to make good the difference.

#### **4.7.1 Valuation Prices**

Prices at which valuation debits are conducted called Valuation Prices and are calculated as below:

- (i) Valuation Price for failure to deliver for Regular Market, and Limited Physical Market Deals: The valuation price for securities which were not delivered on the settlement day for securities, is the closing price of such securities, on the immediate trading day preceding the pay-in day for the securities.
- (ii) Valuation Price for Bad Delivery for Regular Market and the Limited Physical Market Deals: The valuation price for securities which constitute bad deliveries, is the closing price of such securities, on the immediate trading day preceding the bad delivery rectification day for the securities.

#### **4.7.2 Close-out Procedures**

All shortages not bought-in are deemed closed out at the highest price between the first day of the trading period till the day of squaring off or closing price on the auction day plus 10%/20% (as the case may be). This amount is credited to the receiving member's account on the auction pay-out day.

The close out procedure is done in the following manner for different markets and varies from case to case.

- (i) For Regular Market:
  - (a) In the case of failure to give delivery: At the highest price prevailing in the NSE from the first day of the relevant trading period till the day of closing out or 20% above the closing price on the auction day, whichever is higher. In cases of securities having corporate actions all cases of short delivery of cum transactions which cannot be auctioned on cum basis or where the cum basis auction pay out is after the book closure/record date, would be compulsory closed out. For compulsory close out, the following formula is applicable:
    - (i) Higher of 10% above the closing price of the security in Normal Market on the auction day
    - (ii) The highest traded price from first trading day of the settlement till the auction day.
  - (b) In the case of non rectification/replacement for bad delivery: At the highest price prevailing in the NSE from the first day of the relevant trading period till the day of the closing out or 20% above the official closing price on the auction day, whichever is higher.

- (c) In the case of non rectification/replacement for objection cases: At 20% above the official closing price on the auction day.
- (ii) For Limited Physical Market Deals:
  - (a) In the case of failure to give delivery: At 20% over the actual trade price
  - (b) In the case of non rectification/replacement for bad delivery: At 10% over the actual trade price
  - (c) In the case of non rectification/replacement for objection cases: At 20% above the official closing price in regular market on the auction day.
- (iii) Auction Market:
  - (a) In the case of auction non delivery: When the auction seller fails to deliver in part or full on auction pay-in day, the deal is squared up at the highest price prevailing in the NSE from the first day of the relevant trading period till the day of closing out or 20% over the official closing price on the close out day whichever is higher and is charged to the auction seller unless otherwise specified.
  - (b) In the case of an auction bad delivery: An auction delivery reported as bad delivery is squared up at the highest price prevailing in the NSE from the first day of the relevant trading period till the day of closing out or 10% over the official closing price on the close out day, whichever is higher and will be charged to the auction seller unless otherwise specified.
- (iv) Rectified/Replaced bad deliveries reported as bad delivery (Rebad delivery):
  - (a) For Regular Market Deals: At the highest price prevailing in the NSE from the first day of the relevant trading period till the day of the closing out or 10% above the official closing price on the auction day whichever is higher.
  - (b) For Limited Physical Deals: Rectified / replaced shares reported as bad delivery (Rebad delivery) is squared up at 10% over the actual trade price.
- (v) Company objection cases reported as bad delivery:
 

Rectified /replaced company objection reported as bad delivery is squared up at 10% above the official closing price on the auction day.
- (vi) Close out price for deleted security:
 

Security for which trading has been discontinued on the Exchange (hereinafter referred to as deleted security), close out shall be the last 26 weeks average trade price on the exchange with a close out mark up of 20%.

(vii) Deleted security on account of payment of additional call money:

In the case of securities for which trading has been discontinued on the Exchange on account of payment of additional call money (deleted security), the security where the respective call money has been paid (new security) will be considered to arrive at the closing price.

Company objections received in the 'deleted security' will be required to be reported in the 'new security' symbol / series. In case the 'new security' is not available for the reason of such security not being introduced for trading on the Exchange/trading being discontinued on the Exchange, company objections will be required to be reported in the 'deleted security' and closing price for such deleted security will be at 20 % over the official closing price on the last traded day of the 'deleted security' on the Exchange.

(viii) Deleted security on account of payment of redemption:

In the case of securities for which trading has been discontinued on the Exchange on account of redemption (deleted security), the security (with the new face value after redemption) introduced for trading by the Exchange (new security) will be considered to arrive at the closing price.

Company objections received in the 'deleted security' will be required to be reported in the new security symbol / series and members will be entitled to claim redemption amount as corporate benefit.

In case the 'new security' is not available for the reason of such security not being introduced for trading on the Exchange / trading being discontinued on the Exchange on account of full redemption, company objections will be required to be reported in the 'deleted security' and closing price for such deleted security will be at 20% over the official closing price on the last traded day of the 'deleted security' on the Exchange.

(ix) Deleted security on account of merger / amalgamation / hive off / scheme of restructuring:

In the case of securities for which trading has been discontinued on the Exchange on account of merger / amalgamation/ scheme of restructuring ('deleted security'), the security with which the deleted security is merged / amalgamated / hived off / restructured into ('new security') will be considered to arrive at the closing price. Closing price for such 'deleted security' will be the official closing price of the new security on the auction day prevalent on the Exchange. In case where the price of



the 'new security' is not available for the reason of such security not being traded on the Exchange, the closing price for such deleted security will be at 20% over the official closing price on the last traded day of 'deleted security' on the Exchange. In case, where more than one security ('additional securities') is being given by the company in lieu of the 'deleted security', the claim of company objection lodged for such 'deleted security' shall be settled as follows:

- (a) If such 'additional securities' are traded on the Exchange, in the ratio in which they have been issued by the company.
  - (b) If any one or more of these 'additional securities' are not traded on any Stock Exchange, no claim shall arise, for such security not traded.
  - (c) If any one or more of these 'additional securities' are not traded on the Exchange but traded on some other Stock Exchanges, the relevant closing price of such securities shall be the closing price on the Regional Exchange, to be notified by NSCCL.
- (x) Close out price for bonds:
- (a) In case of failure to give delivery, non rectification/replacement of bad delivery, rectified/replaced bad delivery subsequently reported as re-bad, auction non-delivery, and auction delivery reported as bad delivery, closing out price will be the highest rate prevailing on the Exchange from the first day of the relevant trading period till the day of closing out or 5% over the official closing price on the auction day, whichever is higher.
  - (b) In case of non rectification / replacement of company objection and rectified/replaced company objections reported as bad delivery, closing price will be 5% over the official closing price on the auction day.

## **4.8 Risks in Settlement**

The following two kinds of risks are inherent in a settlement system:

- (i) Counterparty Risk: This arises if parties do not discharge their obligations fully when due or at any time thereafter. This has two components, namely replacement cost risk prior to settlement and principal risk during settlement.
  - (a) The *replacement cost risk* arises from the failure of one of the parties to transaction. While the non-defaulting party tries to replace the original transaction at current prices, he loses the profit that has accrued on the transaction between the date of original transaction and date of replacement

transaction. The seller/ buyer of the security loses this unrealised profit if the current price is below/ above the transaction price. Both parties encounter this risk as prices are uncertain. It has been reduced by reducing time gap between transaction and settlement and by legally binding netting systems.

- (b) The *principal risk* arises if a party discharges his obligations but the counterparty defaults. The seller/buyer of the security suffers this risk when he delivers/ makes payment, but does not receive payment/delivery. This risk can be eliminated by delivery vs. payment mechanism which ensures delivery only against payment. This has been reduced by having a central counterparty (NSCCL) which becomes the buyer to every seller and the seller to every buyer. A variant of counterparty risk is liquidity risk which arises if one of the parties to transaction does not settle on the settlement date, but later. The seller/buyer who does not receive payment/delivery when due, may have to borrow funds/securities to *complete his payment/delivery* obligations. Another variant is the third party risk which arises if the parties to trade are permitted or required to use the services of a third party which fails to perform. For example, the failure of a clearing bank which helps in payment can disrupt settlement. This risk is reduced by allowing parties to have accounts with multiple banks. Similarly, the users of custodial services face risk if the concerned custodian becomes insolvent, acts negligently, etc.

- (ii) System Risk: This comprises of operational, legal and systemic risks. The operational risk arises from possible operational failures such as errors, fraud, outages etc. The legal risk arises if the laws or regulations do not support enforcement of settlement obligations or are uncertain. Systemic risk arises when failure of one of the parties to discharge his obligations leads to failure by other parties. The domino effect of successive failures can cause a failure of the settlement system.

These risks have been contained by enforcement of an elaborate margining and capital adequacy standards to secure market integrity, settlement guarantee funds to provide counter-party guarantee, legal backing for settlement activities and business continuity plan, etc.

## **4.9 Risk Management**

A sound risk management system is integral to/pre-requisite for an efficient clearing and settlement system. The National Securities Clearing Corporation Ltd. (NSCCL), a wholly owned subsidiary of NSE, was incorporated in August 1995 and commenced clearing operations in

April 1996. NSCCL ensures that trading members' obligations are commensurate with their net worth and has put in place a comprehensive risk management system which is constantly monitored and upgraded to pre-empt market failures. The risk containment measures are discussed below:

#### 4.2.1 Capital Adequacy Requirements

The trading members are required to provide liquid assets which adequately cover various margins & minimum capital requirements. Liquid assets of the member include their initial membership deposits including the security deposits. Members may provide additional collateral deposit towards liquid assets, over and above their minimum membership deposit requirements (see table 4.4).

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

- (i) *Cash Equivalents*: Cash, bank fixed deposits from approved banks, bank guarantees from approved banks and government securities with 10% haircut, units of liquid mutual funds or government securities mutual funds with 10% haircut.
- (ii) Other Liquid assets:
  - (a) Liquid (Group I) Equity Shares in demat form, as specified by NSCCL from time to time deposited with approved custodians. Haircuts applied are equivalent to the VaR margin for the respective securities.
  - (b) Mutual fund units other than those listed under cash equivalents decided by NSCCL from time to time. Haircut equivalent to the VaR margin for the units computed using the traded price if available, or else, using the NAV of the unit treating it as a liquid security.
  - (c) Corporate bonds in demat form as decided by NSCCL from time to time with haircuts as specified by NSCCL

Table 4.4: Capital Adequacy Norms for Membership on NSE (Rs. in lakh)

**Table 4.4 : Deposit & Networth Requirements (Corporates /Limited Liability Partnership)**

DEPOSIT STRUCTURE ( ₹ in lakhs)							
Segment	Type of Membership	Cash-NSEIL	Non-Cash NSEIL	Cash NSCCL	Non-Cash NSCCL	Total	Net Worth
Capital Market	TM & SCM	85	-	15	25	125	100
Futures & Options	TM	25	-	-	-	25	100
	TM & SCM	25	-	25	25	75	100
	TM & CM	25	-	25	25	75	300
	PCM	- 127	-	25	25	50	300

DEPOSIT STRUCTURE ( ₹ in lakhs)								
Segment	Type of Membership		Cash-NSEIL	Non-Cash NSEIL	Cash NSCCL	Non-Cash NSCCL	Total	Net Worth
Currency Derivatives Segment	Existing Members	TM	2	8	-	-	10	100
		TM & SCM	2	8	25	25	60	500
		TM & CM	2	8	25	25	60	1000
	N e w Members	TM	2	13	-	-	15	100
		TM & SCM	2	18	25	25	70	500
		TM & CM	2	18	25	25	70	1000
	PCM		-	-	25	25	50	1000

\* TM = Trading Membership

\* TM & SCM = Trading and Self Clearing Membership

\* TM & CM = Trading and Clearing Membership

\* PCM = Professional Clearing Membership

**Table 4.5 Deposit & Networth Requirements(Individual / Partnership Firms)**

DEPOSIT STRUCTURE ( ₹ in lakhs)								
Segment	Type of Membership		Cash-NSEIL	Non-Cash NSEIL	Cash NSCCL	Non-Cash NSCCL	Total	Net Worth
Capital Market	TM & SCM		26.5	-	6	17.5	50	75
Futures & Options	TM		25	-	-	-	25	75
	TM & SCM		25	-	25	25	75	100
	TM & CM		25	-	25	25	75	300
Currency Derivatives Segment	Existing Members	TM	2	8	-	-	10	100
		TM & SCM	2	8	25	25	60	500
		TM & CM	2	8	25	25	60	1000
	N e w Members	TM	2	13	-	-	15	100
		TM & SCM	2	18	25	25	70	500
		TM & CM	2	18	25	25	70	1000

\* TM = Trading Membership

\* TM & SCM = Trading and Self Clearing Membership

\* TM & CM = Trading and Clearing Membership

\* PCM = Professional Clearing Membership

## **Fees and Charges :**

- Application Processing Fees : ₹ 10,000/- + Applicable Service Tax.
- Admission Fees : One time ₹ 5,00,000/- + Applicable Service Tax except in case of Alpha Membership
- Annual subscription charges (Capital Market Segment):  
For Corporates - ₹ 1,00,000 P.A.+ Applicable Service Tax  
For Individuals/Partnership Firms - ₹ 50,000 P.A.+ Applicable Service Tax
- Advance minimum transaction charges (Futures & Options segment): ₹ 1,00,000 p.a. + Applicable Service Tax
- Advance transaction charges (Currency Derivatives segment) ₹ 50,000 p.a. + Applicable Service Tax

### **4.9.2 Margins**

Margins form a key part of the risk management system. In the stock markets there is always an uncertainty in the movement of share prices. This uncertainty leads to risk which is addressed by margining system of stock markets. Let us understand the concept of margins with the help of a following example.

Example: Suppose an investor purchases 1000 shares of 'xyz' company at Rs.100/- on January 1, 2008. Investor has to give the purchase amount of Rs.1,00,000/- (1000 x 100) to his broker on or before January 2, 2008. Broker, in turn, has to give this money to stock exchange on January 3, 2008. There is always a small chance that the investor may not be able to bring the required money by required date. As an advance for buying the shares, investor is required to pay a portion of the total amount of Rs.1,00,000/- to the broker at the time of placing the buy order. Stock exchange in turn collects similar amount from the broker upon execution of the order. This initial token payment is called margin. It is important to remember that for every buyer there is a seller and if the buyer does not bring the money, seller may not get his / her money and vice versa. Therefore, margin is levied on the seller also to ensure that he/ she gives the 100 shares sold to the broker who in turn gives it to the stock exchange.

In the above example, assume that margin was 15%. That is investor has to give Rs.15,000/- (15% of Rs.1,00,000/-) to the broker before buying. Now suppose that investor bought the shares at 11 am on January 1, 2008. Assume that by the end of the day, price of the share falls by Rs.25/-. That is total value of the shares has come down to Rs.75,000/-. That is buyer has suffered a notional loss of Rs.25,000/-. In our example buyer has paid Rs.15,000/- as margin but the notional loss, because of fall in price, is Rs.25,000/-. That is notional loss is more than the margin given.

In such a situation, the buyer may not want to pay Rs.1,00,000/- for the shares whose value has come down to Rs.75,000/-. Similarly, if the price has gone up by Rs.25/-, the seller may not want to give the shares at Rs.1,00,000/-. To ensure that both buyers and sellers fulfill their obligations irrespective of price movements, notional losses are also need to be collected. Prices of shares keep on moving every day. Margins ensure that buyers bring money and sellers bring shares to complete their obligations even though the prices have moved down or up.

### *Imposition of Margins*

For imposition of margins, the stocks are categorized on basis of their trading frequency and impact cost<sup>10</sup> (see table 4.5). The criteria for categorization of stocks for imposition of margins is mentioned below:

- (a) The securities are classified into three groups based on their liquidity. The stocks which have traded atleast 80% of the days for the previous six months constitute Group I (Liquid Securities) and Group II (Less Liquid Securities). Out of the scrips identified above, the scrips having mean impact cost of less than or equal to 1% are categorized under Group I and the scrips where the impact cost is more than 1, are categorized under Group II. The remaining stocks are classified into Group III (Illiquid Securities).
- (b) The impact cost is calculated on the 15th of each month on a rolling basis considering the order book snapshots of the previous six months. On the basis of the impact cost so calculated, the scrips are moved from one group to another group from the 1st of the next month.

**Table 4.5: Imposition of Margins**

Group	Trading frequency (over the previous six months*)	Impact Cost (over the previous six months*)
Liquid Securities (Group I)	At least 80 % of the days	Less than or equal to 1 %
Less Liquid Securities (Group II)	At least 80 % of the days	More than 1 %.
Illiquid Securities (Group III)	Less than 80 % of the days	N/A

\* For securities that have been listed for less than 6 months, the trading frequency and the impact cost is computed using the history of the scrip.

### Categorisation of Newly Listed Securities

<sup>10</sup> Impact cost represents the cost of executing a transaction in a given stock, for a specific predefined order size, at any given point of time.

- (a) For the first month and till the time of monthly review a newly listed security is categorised in that group where the market capitalization of the newly listed security exceeds or equals the market capitalization of 80% of the securities in that particular group. Subsequently, after one month, whenever the next monthly review is carried out, the actual trading frequency and impact cost of the security is computed, to determine the liquidity categorization of the security.
- (b) In case any corporate action results in a change in ISIN, then the securities bearing the new ISIN is treated as newly listed security for group categorization.

### *Types of Margins*

Daily margins payable by the trading members in the Cash market consists of the following:

- (i) Value at Risk (VaR) margin
- (ii) Mark to Market Margin
- (iii) Extreme Loss Margin

The margins are computed at client level. A member entering an order, needs to enter the client code. Based on this information, margin is computed at the client level, which will be payable by the trading members on upfront basis. Let us see in details what is meant by these margins.

### *Value at Risk Margin*

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

Computation of VaR Margin: VaR Margin is a margin intended to cover the largest loss that can be encountered on 99% of the days (99% Value at Risk). For liquid securities, the margin covers one-day losses while for illiquid securities; it covers three-day losses so as to allow the clearing corporation to liquidate the position over three days. This leads to a scaling factor of square root of three for illiquid securities. For liquid securities, the VaR margins are based only on the volatility of the security while for other securities, the volatility of the market index is also used in the computation (see table 4.6).

Some Definitions: Computation of the VaR margin requires the following definitions:

- (a) Security sigma: It means the volatility of the security computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.

- (b) Security VaR: It means the higher of 7.5% or 3.5 security sigmas.
- (c) Index sigma: It means the daily volatility of the market index (CNX Nifty or BSE Sensex) computed as at the end of the previous trading day. The computation uses the exponentially weighted moving average method applied to daily returns in the same manner as in the derivatives market.
- (d) Index VaR: It means the higher of 5% or 3 index sigmas. The higher of the Sensex VaR or Nifty VaR would be used for this purpose.

**Table 4.6: VaR Margins for Different Groups of Securities**

Liquidity Categorization	One-Day VaR	Scaling factor for illiquidity	VaR Margin
Liquid Securities (Group I)	Security VaR	1.00	Security VaR
Less Liquid Securities (Group II)	Higher of Security VaR and three times Index VaR	1.73 (square root of 3.00)	Higher of 1.73 times Security VaR and 5.20 times Index VaR
Illiquid Securities (Group III)	Five times Index VaR	1.73 (square root of 3.00)	8.66 times Index VaR

All securities are classified into three groups for the purpose of VaR margin as discussed above. For the securities listed in Group I, scrip wise daily volatility calculated using the exponentially weighted moving average methodology applied to daily returns. The scrip wise daily VaR would be 3.5 times the volatility so calculated subject to a minimum of 7.5%. For the securities listed in Group II, the VaR margin is higher of scrip VaR (3.5 sigma) or three times the index VaR, and it shall be scaled up by root 3 ( $\sqrt{3}$ ). For the securities listed in Group III, the VaR margin would be equal to five times the index VaR and scaled up by root 3.

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

VaR margin rate for a security constitutes the following:

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

The VaR margin rate computed, as mentioned above, will be charged on the net outstanding position (buy value-sell) of the respective clients on the respective securities across all open



settlements. There would be no netting off of positions across different settlements. The net position at a client level for a member are arrived at and thereafter, it is grossed across all the clients including proprietary position to arrive at the gross open position.

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

Collection of VaR Margin: The VaR margin is collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade. The VaR margin is collected on the gross open position of the member. The gross open position for this purpose would mean the gross of all net positions across all the clients of a member including its proprietary position. For this purpose, there would be no netting of positions across different settlements.

Upfront margin rates (VaR margin + Extreme Loss Margin) applicable for all securities in Trade for Trade- Surveillance (TFTS) shall be 100 %. The Intra-day VAR files is generated based on the prices at 11.00 a.m., 12.30 p.m., 2.00 p.m., and 3.30 p.m. everyday. Such intra-day VAR files are used for margining of intra-day member positions. In addition to the above, a VAR file at end of day and begin of day is provided and the same is applicable on the positions for next trading day.

#### *Mark-to-Market Margin*

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

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

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

There would be no netting off of the positions and setoff against MTM profits across two rolling settlements i.e. T day and T-1 day. However, for computation of MTM profits/losses for the day, netting or setoff against MTM profits would be permitted.

In case of Trade for Trade Segment (TFT segment) each trade is marked to market based on the closing price of that security. The MTM margin so collected is released on completion of pay-in of the settlement.

Example: Let us understand the MTM computation with the help of the following example:

<b>Client</b>	<b>Security</b>	<b>T-1 day</b>	<b>T day</b>	<b>Total profit/loss of Client</b>	<b>MTM for broker</b>
<i>Client A</i>	Security X	800	300		
	Security Y	-500	-1200		
	Total	300	-900	-900	
<i>Client B</i>	Security Z	700	-400		
	Security W	-1000	800		
	Total	-300	400	-300	
<i>Client C</i>	Security X	1000	500		
	Security Z	-1500	-800		
	Total	-500	-300	-800	
<i>Client D</i>	Security Y	700	-200		
	Security R	-300	800		
	Total	400	600	1000	
<i>Member</i>					-2000

For a Client A, his MTM profit/ loss would be calculated separately for his positions on T-1 and T day (two different rolling settlements). For the same day positions of the client, his losses in some securities can be set off/netted against profits of some other securities. Thus, we would arrive at the MTM loss/profit figures of the two different days T and T-1. These two figures cannot be netted. Any loss will have to be collected and same will not be setoff against profit arising out of positions of the other day.

Thus, as stated above MTM profits / losses would be computed for each of the clients; Client A, Client B, Client C etc. As regards collection of margin from the broker, the MTM would be grossed across all the clients i.e. no setoff of loss of one client with the profit of another client. In other words, only the losses will be added to give the total MTM loss that the broker has to deposit with the exchange. In this example, the broker has to deposit MTM Margin of Rs 2000.

### *Extreme Loss Margin*

The Extreme Loss Margin for any security is higher of:

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

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

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

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

### *Cross Margining*

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

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

- a. Index futures and constituent stock futures for same expiry in F&O segment
- b. Index futures and constituent stock positions in Cash segment
- c. Stock futures in F&O segment and stock positions in Cash segment

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

The cross margining benefits are computed and provided on an on-line real time basis in respect of all existing and confirmed positions. The offsetting positions are margined only

to the extent of 25% of all applicable margins (all upfront margins, i.e. initial margins and Exposure margins).

#### *Margin Shortfall*

In case of any shortfall in margin:

- (a) The members are not permitted to trade with immediate effect.
- (b) Penalty for margin violation

Penalty applicable for margin violation is levied on a monthly basis based on slabs as mentioned below in Table 4.7:

**Table 4.7: Penalty for Margin Shortfall**

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

Instances as mentioned above refer to all disablements during market hours in a calendar month. The penal charge of 0.07% per day is applicable on all disablements due to margin violation anytime during the day.

#### *Margins for institutional deals*

As specified by SEBI<sup>11</sup>, all institutional transactions should be margined in the capital market segment from T+1 day subsequent to confirmation of the transactions by the custodians. For this purpose, institutional investors include:

- (a) Foreign Institutional Investors (FIIs) registered with SEBI.
- (b) Mutual Funds (MFs) registered with SEBI.
- (c) Public Financial Institutions as defined under Section 4A of the Companies Act, 1956.
- (d) Banks, i.e., a banking company as defined under Section 5(1)(c) of the Banking Regulations Act, 1949.

<sup>11</sup> SEBI Circular No. MRD/DoP/SE/Cir- 06 /2008, March 19 2008

- (e) Insurance companies registered with IRDA.
- (f) Pension Funds regulated by Pension Fund Regulatory and Development Authority (PFRDA).

#### *Levy of margin for institutional deals*

- (i) Institutional transactions are identified by the use of the participant code at the time of order entry.
- (ii) Transactions entered into on behalf of custodial participants i.e. carrying custodial participant code is considered as institutional deals unless not confirmed by the respective custodians in which case the transactions are considered as a normal transactions and all applicable margins are levied on the members.
- (iii) Members may also enter "INST" code in the custodial participant code at the time of entering orders on behalf of the institutional clients.
- (iv) Members are required to allocate the INST trades only to the above categories.
- (v) In respect of institutional transactions confirmed by the custodians the margins are levied on the custodians.
- (vi) In respect of institutional transactions rejected/not accepted by the custodians the margins is levied on the members who have executed the transactions.
- (vii) The margins are computed and levied at a client (Custodial Participant code) level in respect of institutional transactions and collected from the custodians/members.

#### *Retail Professional Clearing Member*

In case of transactions which are to be settled by Retail Professional Clearing Members (PCM), all the trades with PCM code are included in the trading member's positions till it is confirmed by the PCM. Margins are collected from respective trading members until confirmation of trades by PCM. On confirmation of trades by PCM, such trades are reduced from the positions of trading member and included in the positions of PCM. The PCM is then liable to pay margins on the same.

#### *Capping of Margins*

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

#### *Exemption upon early Pay-in of Securities*

In cases where early pay-in of securities is made prior to the securities pay-in, such positions for which early pay-in (EPI) of securities is made is exempt from margins. The EPI of securities is allocated to clients having net deliverable position, on a random basis unless specific client details are provided by the member/ custodian. Member/Custodians, however should ensure that appropriate early pay-in benefit of margin is passed on to the relevant clients. Additionally, member/custodian can specify the clients to whom the early pay-in may be allocated.

#### *Exemption upon early Pay-in of Funds*

In cases where early pay-in of funds is made prior to the funds pay-in, such positions for which early pay-in (EPI) of funds is made are exempt from margins based on the client details provided by the member/ custodian. Early pay-in of funds specified by the member/ custodians for a specific client and for a settlement is allocated against the securities in the descending order of the net buy value of outstanding position of the client.

#### **4.9.3 On-Line Exposure Monitoring**

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

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

#### **4.9.4 Off-line Monitoring**

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

#### **4.9.5 Index-based Market-wide Circuit Breakers/ Price Bands for Securities**

An index based market-wide circuit breaker system applies at three stages of the index movement either way at 10%, 15% and 20%. These circuit breakers bring about a coordinated trading halt in trading on all equity and equity derivatives markets across the country. The breakers are triggered by movements in either Nifty 50 or Sensex, whichever is breached earlier. Details of circuit breakers are given in Chapter 3.

#### 4.2.6 Settlement Guarantee Mechanism

A Settlement Guarantee Fund provides the cushion for any residual risk. In the event of failure of a trading member to meet settlement obligations or committing default, the Fund is utilized to the extent required for successful completion of the settlement. This has eliminated counter party risk of trading on the Exchange. The market has now full confidence that settlements will take place in time and will be completed irrespective of possible default by isolated trading members.

The Settlement Guarantee Fund is an important element in facilitating the settlement process. The Fund operates like a self-insurance mechanism and is funded through the contributions made by NSCCL, NSE, penalty amounts, fines etc. recovered by NSCCL.

#### 4.10 International Securities Identification Number

SEBI being the National Numbering Agency for India has permitted NSDL to allot International Securities Identification Number (ISIN) for demat shares. While allotting ISINs, NSDL ensures that:

- (a) The ISINs allotted by NSDL does not at any point of time breach the uniqueness of ISIN of physical form for the same security.
- (b) ISIN for a security is allotted only when the security is admitted to NSDL or on receipt of request for ISIN from CDSL.
- (c) The numbering system is simple.
- (d) The numbering system of ISIN is in compliance with the structure of ISIN adopted by SEBI.

Numbering System of ISIN: The numbering structure for securities in NSDL is of 12 digit alpha numeric string. The first two characters represent country code i.e. IN (in accordance with ISO 3166). The third character represents the Issuer Type as detailed in Table 4.9.

**Table 4.9: Issuers Type**

Issuer Type	Code allotted
Central Government	A
State Government	B
Municipal Corporation	C
Union Territories	D
Company, Statutory Corporation, Banking Company	E
Mutual Funds including UTI	F

Note: ISINs for Government Securities (Gsec) i.e. loans raised by Central and State Government are allotted by Reserve Bank of India (RBI).

The list may be expanded as per need. Maximum issuer types can be 35 (A to Z and 0 to 8. The partly paid up shares are identified by 9). The next 4 characters (fourth to seventh character) represent company identity of which first 3 characters are numeric and fourth character is alpha character. The numbering begins with '001A' and continues till '999A' and proceeds to '001B'. The next two characters (the eight and ninth characters) represent security type for a given issuer. Both the characters are numeric. The next two characters (the tenth and eleventh characters) are serially issued for each security of the issuer entering the system. Last digit is check digit. The security types are planned which may be expanded as per the need as detailed in Table 4.10.

**Table 4.10: Security Types**

Security Type	Code
Equity Shares	01
Mutual Fund	01
Convertible Preference Shares	03
Non Convertible Preference Shares	04
Secured Debentures	07
Unsecured Debentures	08
Regular Return Bonds, Promisory Notes	09
Floating Rate Bond	10
Deep Discount Bond	11
Step Discount Bond	12
Warrants	13
Commercial Paper	14
Pass Through Certificate	15
Certificate of Deposit	16
Security Receipt	18

**Box 4.1: Investor Protection Fund**

Investor Protection Fund (IPF) has been set up as a trust under Bombay Public Trust Act, 1950 under the name and style of National Stock Exchange Investor Protection Fund Trust and is administered by the Trustees. The purpose of IPF is to take care of investor claims which may arise out of non-settlement of obligations by trading members. The IPF is utilised to settle claims of such investors whose trading member has been declared a defaulter or expelled by the Exchange. Further the stock exchanges have been allowed to utilize interest income earned on IPF for Investor Protection Fund for investor education, awareness and research. The maximum amount of claim payable from the IPF to the investor is Rs. 15 lakh.



## **4.11 Data and Report Downloads**

NSCCL downloads various reports in csv format to clearing members with regards to daily obligation report, custodial trade reports, delivery reports, funds report, margin reports etc, each of which is discussed in the following section.

### **4.11.1 Obligation Reports**

- (i) Daily Obligation Report: This report contains obligations of a Clearing Member (computed after segregation of the custodial trades for trading members). This is a daily report which is downloaded at the end of the trading day to each Clearing Member. This report provides security-wise information on:
  - (a) Daily purchases and sales and their value.
  - (b) Cumulative purchases and sales, and their value for the trading period.
- (ii) Final Obligation Report: At the end of the trading period, members receive Settlement Obligation Statement for funds and securities. This report indicates the net obligation to deliver or receive for each security in which he has had dealings and net obligation to pay or receive funds.
- (iii) Net Daily Obligation Report: This is a daily report which is downloaded at the end of the trading day to each Clearing Member. This report provides security-wise information on the cumulative net purchases or net sales and their value for the trading day.
- (iv) Net Final Obligation Report: This is a daily report which provides the net obligation for securities and funds to be delivered or received and is downloaded on the T+1 day.

### **4.11.2 Custodial Trade Reports**

- (i) Order Confirmation Report: This report contains information of all Custodial trades which are not confirmed by the Custodians as of the day of the report.
- (ii) Custodian Trades Report: This report gives the trade details such as symbol, cpcode, client code, quantity, value for all trades executed by a member.
- (iii) Trades Report: This report gives the statement of all the securities traded by the trading member for the respective Custodial participants.

### **4.11.3 Deliveries Reports**

- (i) Demat Final Delivery Statement (DFDS): This report provides details of the electronic shares delivered by a member as securities pay-in for various settlements for the given settlement date. The report is sorted on Settlement Type/Settlement Number/Delivery Type/Symbol/Series/ISIN.

- (ii) Demat Final Receipt Statement (DFRS): This report provides details of the electronic shares received by a member as securities pay-out for various settlements for the given settlement date. The report is sorted on Settlement Type/Settlement Number/Delivery Type/Symbol/Series/ISIN.
- (iii) Client Allocation Details (CADT): This report provides details of pay out directly credited to the client's beneficiary account. It gives details of DP ID and Beneficiary account where the pay-out is credited and also details of securities, which have not been credited to client account.
- (iv) Memberwise With-held Securities Statement: This report gives details for securities payout withheld for members.
- (v) Deliveries Report: After allocation, the NSECM Clearing System generates Trading Member-wise delivery statement. This delivery statement is security-wise. The statement provides information on delivering centre, receiving centre, number of shares to deliver or receive for each security and also the code of the receiving entity or delivering entity respectively.
- (vi) Security Shortage Report: The Security Shortage Statement lists down the shortage in the delivery of the securities as compared to the Clearing Members obligation of securities pay-in. The details given in the list contain the delivering centre, receiving centre, delivery number against which securities are delivered short, the security, the quantity of shares delivered short, the Valuation price and the amount to be debited to the delivering members account for the quantity of shares delivered short, the receipt number and the counter party receiving members name/code.

#### **4.11.4 Funds Reports**

Two Funds Reports are being downloaded to all trading members on a daily basis i.e., Daily Funds Summary Statement and Daily Funds Statement.

Daily funds summary statement provides details about the transactions effected in the trading members clearing account at the Clearing Bank. This statement is similar to the Bank statement provided by the Clearing Bank. The debit appearing in the summary statement is equal to the withdrawals as per the bank statement and the credit is equal to the deposits as per the bank statement.

Daily funds statement provides the break-up for each debit and credit appearing in the daily funds summary statement. Both the reports are downloaded on a daily basis after the debits/credits have been effected by the clearing bank.

#### **4.11.5 Auction Reports**

- (i) Auction Square Up Debit Statement: This report gives details of unauctioned deliveries that are squared-up by the Exchange.
- (ii) Auction Square Up Credit Statement: This report gives details of unauctioned deliveries that are squared-up by the Exchange. This report is downloaded at the end of the auction trading day.
- (iii) Auction Difference Statement: This report gives details of the auctioned deliveries for which the valuation price exceeds the auction traded price. This report is downloaded at the end of the auction trading day.

#### **4.11.6 Other Reports**

The following reports are downloaded in the common/clearing folder on the extranet:

- (i) Corporate Action Report: This report gives the statement of the corporate actions which are set by NSCCL (i.e. dividend, AGM, book closure date, record date etc.).
- (ii) Securities Master report: This report will display information regarding Security Settlement Mode for a particular settlement type and number.
- (iii) Settlement Calendar: This report gives the monthly settlement schedule.

Further the following reports are also available on EXTRANET:

- (i) Detailed Margin Report (MG02): This report provides client wise, security wise, and settlement wise amount of margin and exposure for the day.
- (ii) Consolidated Margin Report (MG01): This report provides amount of margin payable and amount of exposure and MABC available for the day.
- (iii) Member Wise STT file (MWST): This file gives the details of client wise security wise Securities Transaction Tax calculated for the member for a trading day.

# CHAPTER 5: LEGAL FRAMEWORK

The exigencies of the market and the flexibility of the regulators are maintained through the exercise of delegated legislation to the regulators. Under this the regulators issue notifications, circulars and guidelines which are to be complied by the market participants.

Various activities in the securities market in India are regulated in a coordinated manner by four regulators namely Department of Economic Affairs (DEA) of the Ministry of Finance, Ministry of Company Affairs, Securities and Exchange Board of India (SEBI) and the Reserve Bank of India (RBI).

The regulatory and the supervisory framework of the securities market in India has been progressively strengthened through various legislative and administrative measures and is consistent with the best international benchmarks, such as, standards prescribed by the International Organisation of Securities Commissions (IOSCO).

## ***Rules and Regulations***

The Government has framed rules under the Securities Contract (Regulation) Act SC(R)A, SEBI Act and the Depositories Act. SEBI has framed regulations under the SEBI Act and the Depositories Act for registration and regulation of all market intermediaries, for prevention of unfair trade practices, insider trading, etc. Under these Acts, Government and SEBI issue notifications, guidelines, and circulars, which need to be complied by the market participants.

The self-regulatory organizations (SROs) like stock exchanges have also laid down their rules and regulations for market participants.

## ***Regulators***

The regulators ensure that the market participants behave in a desired manner so that the securities market continues to be a major source of finance for corporates and government and the interest of investors are protected. As noted earlier, the responsibility for regulating the securities market is shared by DEA, Ministry of Corporate Affairs, SEBI and RBI.

### **5.1 SEBI (Intermediaries) Regulations, 2008**

One of the main functions of SEBI is to register and regulate the functioning of various types of intermediaries and persons associated with securities market in a manner as to ensure smooth functioning of the markets and protection of interests of the investors. These intermediaries, as detailed in the SEBI Act are: stock-brokers, sub- broker, share transfer agents, bankers to an issue, trustees of trust deed, registrars to an issue, merchant bankers,

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

underwriters, portfolio managers, investment advisers, depositories, participants, custodians of securities, foreign institutional investors, credit rating agencies, asset management companies, clearing members of a clearing corporation, trading member of a derivative segment of a stock exchange, collective investment schemes, venture capital funds, mutual funds, and any other intermediary associated with the securities market.

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

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

The salient features of the Regulations are as under:

- (a) The SEBI Regulations put in place a comprehensive regulation which is applicable to all intermediaries. The common requirements such as grant of registration, general obligations, common code of conduct, common procedure for action in case of default and miscellaneous provisions are applicable for all intermediaries.
- (b) An applicant can file application in the prescribed format along with additional information as required under the relevant regulations along with the requisite fees. The existing intermediaries may, within the prescribed time, file the disclosure in the specified form. The disclosures are required to be made public by uploading the information on the website specified by SEBI. The information of commercial confidence and private information furnished to SEBI shall be treated confidential. In the event intermediary wishes to operate in a capacity as an intermediary in a new category, such person may only file the additional shortened forms disclosing the specific requirements of the new category as per the relevant regulations.
- (c) The Fit and Proper criteria have been modified to make it principle based. The common code of conduct has been specified at one place.
- (d) The registration granted to intermediaries has been made permanent unless surrendered by the intermediary or suspended or cancelled in accordance with these regulations.

- (e) Procedure for action in case of default and manner of suspension or cancellation of certificate has been simplified to shorten the time usually faced by the parties without compromising with the right of reasonable opportunity to be heard. Surrender of certificate has been enabled without going through lengthy procedures.
- (f) While common requirements will be governed by the new regulations, the intermediaries specific requirements will continue to be as per the relevant regulations applicable to individual intermediaries. The relevant regulations will be amended to provide for the specific requirements.

## **5.2 SEBI (Prohibition of Insider Trading) Regulations, 2015**

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

To tackle the problem of insider trading, SEBI issued the SEBI (Insider Trading) Regulations 1992. These regulations were further made stringent through amendments in 2015 and they were notified as the SEBI (Prohibition of Insider Trading) Regulations 2015.

The important definitions used in the regulations are:

- (i) Dealing in securities means an act of subscribing, buying, selling or agreeing to subscribe, buy, sell or deal in any securities by any person either as principal or agent.
- (ii) Insider means any person who, is or was connected with the company or is deemed to have been connected with the company, and who is reasonably expected to have access to unpublished price sensitive information in respect of securities of a company, or who has received or has had access to such unpublished price sensitive information.
- (iii) A connected person means any person who:
  - (a) is a director, as defined in the Companies Act, 2013 of a company, or is deemed to be a director of that company by virtue of that Act, or
  - (b) occupies the position as an officer or an employee of the company or holds a position involving a professional or business relationship between himself and the company whether temporary or permanent and who may reasonably be expected to have an access to unpublished price sensitive information in relation to that company.
- (iv) A person is deemed to be a connected person if such person:
  - (a) is a company under the same management or group or any subsidiary company

thereof within the meaning of of the Companies Act, 2013 or sub-clause (g) of section 2 of the Monopolies and Restrictive Trade Practices Act, 1969 as the case may be; or

- (b) is an intermediary as specified in section 12 of SEBI Act, 1992, Investment company, Trustee Company, Asset Management Company or an employee or director thereof or an official of a stock exchange or of clearing house or corporation;
  - (c) is a merchant banker, share transfer agent, registrar to an issue, debenture trustee, broker, portfolio manager, investment advisor, sub-broker, investment company or an employee thereof, or, is a member of the board of trustees of a mutual fund or a member of the board of directors of the asset management company of a mutual fund or is an employee thereof who have a fiduciary relationship with the company;
  - (d) is a member of the board of directors, or an employee, of a public financial institution as defined in the Companies Act, 2013;
  - (e) is an official or an employee of a self regulatory organisation recognised or authorised by the Board of a regulatory body;
  - (f) is a relative of any of the aforementioned persons;
  - (g) is a banker of the company.
  - (h) relative of the connected person.
- (v) Price sensitive information means any information which is related directly or indirectly to a company and which if published is likely to materially affect the price of securities of a company. It includes only such information which if published is likely to materially affect the price of securities of a company. The following is deemed to be price sensitive information:
- (a) periodical financial results of the company;
  - (b) intended declaration of dividends (both interim and final);
  - (c) issue of securities or buy-back of securities;
  - (d) any major expansion plans or execution of new projects;
  - (e) amalgamation, mergers or takeovers;
  - (f) disposal of the whole or substantial part of the undertaking;
  - (g) significant changes in policies, plans or operations of the company.

- (vi) Unpublished information means information which is not published by the company or its agents and is not specific in nature. However, speculative reports in print or electronic media are not considered as published information.

#### ***5.2.1 Prohibition on Dealing, Communicating or Counseling***

Under this regulation, no insider should:

- (a) either on his own behalf or on behalf of any other person, deal in securities of a company listed on any stock exchange when in possession of any unpublished price sensitive information;
- (b) communicate, counsel or procure, directly or indirectly, any unpublished price sensitive information to any person who while in possession of such unpublished price sensitive information should not deal in securities. This is however, not applicable to any communication required in the ordinary course of business or profession or employment or under any law.

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

#### ***5.2.2 Investigation***

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

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

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

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



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

### ***5.2.3 Disclosures and Internal Procedure for Prevention of Insider Trading***

All listed companies and organisations associated with securities markets such as intermediaries, asset management company, trustees of mutual funds, self regulatory organisations recognised by SEBI, recognised stock exchanges, clearing house or corporations, public financial institutions and professional firms such as auditors, accountancy firms, law firms, analysts, consultants, etc., assisting or advising listed companies, are required to frame a code of internal procedures and conduct as per the prescribed format provided in SEBI (Prohibition of Insider Trading) Regulations without diluting it any manner and ensure compliance of the same.

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

- (i) Initial Disclosure:
  - (a) Any person who holds more than 5% shares or voting rights in any listed company should disclose to the company in prescribed form, the number of shares or voting rights held by such person, on becoming such holder, within 2 working days of:
    - (i) the receipt of intimation of allotment of shares; or
    - (ii) the acquisition of shares or voting rights, as the case may be.
  - (b) Any person who is a director or officer of a listed company should disclose to the company in prescribed form, the number of shares or voting rights held by such person, within 2 working days of becoming a director or officer of the company.
- (ii) Continual Disclosure
  - (a) Any person who holds more than 5% shares or voting rights in any listed company should disclose to the company in prescribed form the number of shares or voting rights held and change in shareholding or voting rights, even if such change results in shareholding falling below 5%, if there has been change in such holdings from the last disclosure and such change exceeds 2% of total shareholding or voting rights in the company.
  - (b) Any person who is a director or officer of a listed company, should disclose to the company in prescribed form, the total number of shares or voting rights held

and change in shareholding or voting rights, if there has been a change in such holdings from the last disclosure made and the change exceeds Rs. 5 lakh in value or 25,000 shares or 1% of total shareholding or voting rights, whichever is lower. The disclosure mentioned above should be made within 2 working days of:

- (i) the receipt of intimation of allotment of shares, or
- (ii) the acquisition or sale of shares or voting rights, as the case may be.

(iii) Disclosure by Company to Stock Exchanges

Every listed company, within two days of receipt, should disclose to all stock exchanges on which the company is listed, the information relating to continual and initial disclosure given above. The disclosures required under this regulation may also be made through electronic filing in accordance with the system devised by the stock exchanges. Further, the SEBI Act, which inter-alia, prescribes the penalty for insider trading (Section 15G), was amended in 2002 to increase the penalty for insider trading to Rs 25 crore or three times the amount of profits made out of insider trading, whichever is higher.

### **5.3 SEBI (Prohibition of fraudulent and Unfair Trade Practices relating to securities market) Regulations, 2003**

The SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to the Securities Market) Regulations, 2003 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. The regulations specifically prohibit market manipulation, misleading statements to induce sale or purchase of securities, unfair trade practices relating to securities. The important terms defined under the regulations are:

- (i) Fraud includes any act, expression, omission or concealment committed whether in a deceitful manner or not by a person or by any other person or his agent while dealing in securities in order to induce another person with his connivance or his agent to deal in securities, whether or not there is any wrongful gain or avoidance of any loss, and should also include:
  - (a) a knowing misrepresentation of the truth or concealment of material fact in order that another person may act to his detriment;
  - (b) a suggestion as to a fact which is not true by one who does not believe it to be true;
  - (c) an active concealment of a fact by one having knowledge or belief of the fact;
  - (d) a promise made without any intention of performing it;

- (e) a representation made in a reckless and careless manner whether it be true or false;
- (f) any such act or omission as any other law specifically declares to be fraudulent;
- (g) deceptive behaviour by a person depriving another of informed consent or full participation;
- (h) a false statement made without reasonable ground for believing to be true;
- (i) the act of an issuer of securities giving out misinformation that affects the market price of the security, resulting in investors being effectively misled even though they did not rely on the statement itself or anything derived from it other than the market price.

The term "fraudulent" should be construed accordingly. Nothing contained in this clause is applicable to any general comments made in good faith in regard to the economic policy of the Government; the economic situation of the country; trends in the securities market; any other matter of a like nature.

- (ii) Dealing in Securities is defined to include an act of buying, selling or subscribing pursuant to any issue of any securities or agreeing to buy, sell or subscribe to any issue of any securities or otherwise transacting in any way in any security by any person as principal, agent or intermediary as defined under the SEBI Act.

### ***5.3.1 Prohibition of Certain Dealings in Securities***

The regulation provides that no person should directly or indirectly:

- (a) buy, sell or otherwise deal in securities in a fraudulent manner;
- (b) use or employ, in connection with issue, purchase or sale of any security listed or proposed to be listed in a recognised stock exchange, any manipulative or deceptive device or contrivance in contravention of the provisions of the Act or the rules or the regulations made thereunder;
- (c) employ any device, scheme or artifice to defraud in connection with dealing in or issue of securities which are listed or proposed to be listed on a recognised stock exchange;
- (d) engage in any act, practice, course of business which operates or would operate as fraud or deceit upon any person in connection with any dealing in or issue of securities which are listed or proposed to be listed on a recognised stock exchange in contravention of the act, rules and regulations.

### **5.3.2 Prohibition of Manipulative, Fraudulent and Unfair Trade Practices**

The Regulation provides that no person should indulge in a fraudulent or an unfair trade practice in securities. Any dealing in securities is deemed to be fraudulent or an unfair trade practice if it involves fraud and may include all or any of the following:

- (a) indulging in an act which creates false or misleading appearance of trading in the securities market;
- (b) dealing in a security not intended to effect transfer of beneficial ownership but intended to operate only as a device to inflate, depress or cause fluctuations in the price of such security for wrongful gain or avoidance of loss;
- (c) advancing or agreeing to advance any money to any person thereby inducing any other person to offer to buy any security in any issue only with the intention of securing the minimum subscription to such issue;
- (d) paying, offering or agreeing to pay or offer, directly or indirectly, to any person any money or money's worth for inducing such person for dealing in any security with the object of inflating, depressing, maintaining or causing fluctuation in the price of such security;
- (e) any act or omission amounting to manipulation of the price of a security;
- (f) publishing or causing to publish or reporting or causing to report by a person dealing in securities any information which is not true or which he does not believe to be true prior to or in the course of dealing in securities.
- (g) entering into a transaction in securities without intention of performing it or without intention of change in ownership of such security.
- (h) selling, dealing or pledging of stolen or counterfeit security whether in physical or dematerialized form.
- (i) an intermediary promising a certain price in respect of buying or selling of a security to a client and waiting till a discrepancy arises in the price of such security and retaining the difference in prices as profit for himself.
- (j) an intermediary providing his clients with such information relating to a security as cannot be verified by the clients before their dealing in such security.
- (k) an advertisement that is misleading or that contains information in a distorted manner and which may influence the decision of the investors.
- (l) an intermediary reporting trading transactions to his clients entered into on their behalf in an inflated manner in order to increase his commission and brokerage.

- (m) an intermediary not disclosing to his client transactions entered into on his behalf including taking an option position.
- (n) circular transactions in respect of a security entered into between intermediaries in order to increase commission to provide a false appearance of trading in such security or to inflate, depress or cause fluctuations in the price of such security.
- (o) encouraging the clients by an intermediary to deal in securities solely with the object of enhancing his brokerage or commission.
- (p) an intermediary predating or otherwise falsifying records such as contract notes.
- (q) an intermediary buying or selling securities in advance of a substantial client order or whereby a futures or option position is taken about an impending transaction in the same or related futures or options contract.
- (r) planting false or misleading news which may induce sale or purchase of securities.

#### **5.4 The Depositories Act, 1996**

The paper based ownership and transfer of securities was a major drawback of the Indian securities markets since it often resulted in delay in settlement and transfer of securities, leading to 'bad delivery', theft, forgery etc. The rapid growth in number and volume of transactions in the securities markets further highlighted the limitations of handling securities in the physical/paper mode. As a result, in line with the developments in the securities industry worldwide the paper based settlement and clearing system was replaced with depository system or a scrip less trading system. This transition was facilitated by the Depositories Act, 1996.

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

- (a) making securities of public limited companies freely transferable subject to certain exceptions;
- (b) dematerialising the securities in the depository mode; and
- (c) providing for maintenance of ownership records in a book entry form. In order to streamline the settlement process, the Act envisages transfer of ownership of securities electronically by book entry without making the securities move from person to person.

The Act has made the securities of all public limited companies freely transferable, restricting the company's right to use discretion in effecting the transfer of securities, and the transfer deed and other procedural requirements under the Companies Act have been dispensed with.

The terms used in the Act are defined as under:

- (a) Beneficial owner means a person whose name is recorded as such with a depository.
- (b) Depository means a company, formed and registered under the Companies Act, 2013 and which has been granted a certificate of registration under sub-section (1A) of section 12 of the SEBI Act, 1992.
- (c) Issuer means any person making an issue of securities.
- (d) Participant means a person registered as such under sub-section (1A) of section 12 of the SEBI Act, 1992.
- (e) Registered owner means a depository whose name is entered as such in the register of the issuer.

No depository can act as a depository unless it obtains a certificate of commencement of business from the SEBI Board.

The Depositories Act, defines the rights and obligations of depositories, participants, issuers and beneficial owners which are mentioned below (Chapter III):

- (i) Agreement between Depository and Participant: A depository is required to enter into an agreement in the specified format with one or more participants as its agent.
- (ii) Services of Depository: Any person, through a participant, may enter into an agreement, in such form as may be specified by the bye-laws, with any depository for availing its services.
- (iii) Surrender of Certificate of Security: Any person who has entered into an agreement with a depository should surrender the certificate of security, for which he seeks to avail the services of a depository, to the issuer in such manner as may be specified by the regulations. The issuer, on receipt of certificate of security, should cancel the certificate of security and substitute in its records the name of the depository as a registered owner in respect of that security and inform the depository accordingly. A depository should, on receipt of information enter the name of the person in its records, as the beneficial owner in respect of that security and inform the depository accordingly.
- (iv) Registration of Transfer of Securities with Depository; On receipt of intimation from a participant, the depository is required to register the transfer of security in the name of the transferee. If a beneficial owner or a transferee of any security seeks to have custody of such security, the depository should inform the issuer accordingly.
- (v) Options to Receive Security Certificate or Hold Securities with Depository: Every person subscribing to securities offered by an issuer should have the option either to receive the security certificates or hold securities with a depository. Where a person opts to

hold a security with a depository, the issuer should intimate such depository the details of allotment of the security, and on receipt of such information the depository should enter in its records the name of the allottee as the beneficial owner of that security.

- (viii) **Securities in Depositories to be in Fungible Form:** All securities held by a depository should be in dematerialised and be in fungible form.
- (ix) **Rights of Depositories and Beneficial Owner:** A depository is deemed to be the registered owner for the purpose of effecting transfer of ownership of security on behalf of a beneficial owner. The depository as a registered owner does not have any voting rights or any other rights in respect of securities held by it. The beneficial owner is entitled to all the rights and benefits and is subjected to all the liabilities in respect of his securities held by a depository.
- (x) **Pledge or Hypothecation of Securities held in a Depository:** A beneficial owner may with the previous approval of the depository create a pledge or hypothecation in respect of a security owned by him through a depository. Every beneficial owner is required to give intimation of such pledge or hypothecation to the depository and accordingly the depository makes entries in its records. Any entry in the records of a depository would act as an evidence of a pledge or hypothecation.
- (xi) **Furnishing of Information and Records by Depository and Issuer:** Every depository should furnish to the issuer information about the transfer of securities in the name of beneficial owners at such intervals and in such manner as may be specified by the bye-laws. Every issuer should make available to the depository copies of the relevant records in respect of securities held by such depository.
- (xii) **Option to Opt out in Respect of any Security:** If a beneficial owner seeks to opt out of a depository in respect of any security, he should inform the depository accordingly. After receiving the information, the depository is required to make appropriate entries in its records and inform the issuer. Within thirty days of the receipt of intimation from the depository and on fulfillment of such conditions and payment of such fees as may be specified by the regulations, the issuer is required to issue the certificate of securities to the beneficial owner or the transferee, as the case may be.
- (xiii) **Depository to Indemnify Loss in certain cases:** In case of any loss caused to the beneficial owner due to the negligence of the depository or the participant, the depository has to indemnify beneficial owner. Where the loss due to the negligence of the participant is indemnified by the depository, the depository has the right to recover the same from such participant.

## 5.5 Indian Contract Act, 1872

In the securities markets, the SCRA governs the contracts for or relating to the purchase or sale of securities. However, the provisions of the Indian Contract Act, 1872 also have a bearing on these securities' contracts as this is a general Act which governs the rights of parties in a contract and the effects thereof.

Following are some important terms/definitions used in the Indian Contract Act:

- (i) **Contract:** According to section 2(h) of the Indian Contract Act, 1872, a contract is an agreement enforceable by law. Therefore, there has to be an agreement to create a contract and secondly, it has to satisfy certain requirements mentioned in section 10 of the Act, i.e., the agreement has to be between parties competent to contract, with their free consent, for a lawful object and with lawful consideration, and it should not have been expressly declared as void agreement.
- (ii) **Standard Form Contracts:** With an enormous increase in commercial transactions, the concept of Standard Form Contracts has come into existence. Various business organisations like insurance companies, airways, securities market regulator, other businessman etc. generally get the terms of the contract printed on a standard form and the other side is simply required to agree to the same, or sometimes to sign in token of his having agreed to the terms of the contract so drafted. A standard form contract is a pre-established record of legal terms regularly used by a business entity or firm in transactions with customers. The record specifies the legal terms governing the relationship between the firm and another party. The firm requires the other party to accept the record without amendment and without expecting the other party to know or understand its terms. A Standard Form Contract is effective upon acceptance.
- (iii) **Agency Contract:** An agent is a person employed to do any act for another or to represent another in dealings with third persons, as per section 182 of the Indian Contract Act, 1872. The person for whom such act is done, or who is so represented, is called the Principal. Principal is bound by the acts done by an agent or the contracts entered into by him on behalf of the principal in the same manner, as if the acts had been done or the contracts had been entered into by the principal himself, in person.

An agent has a dual capacity: one, he serves as a connecting link between his principal and the third person, and second, he can have a contractual relationship with his principal.

An agent, having an authority to do an act, has authority to do every lawful thing which



is necessary in order to do such act. An agent having authority to carry on a business, has authority to do every lawful thing necessary for the purpose, or usually done in the course, of conducting such business.

- (iv) Sub-agent: A sub-agent is a person employed by, and acting under the control of, the original agent in the business of the agency. Though the general rule is against delegation of authority by an agent or the appointment of a sub-agent, there could be such an appointment in exceptional situations recognised by law. Thus, when any act does not need personal performance by the agent himself, or the principal agrees to the appointment of a sub-agent, or the ordinary custom of trade permits the same, or the nature of the business of agency so warrants, nature of the agency so warrants, a sub-agent may be validly appointed by an agent.

When a sub-agent has been properly appointed the position of various parties is as under:

- (a) The principal is, so far as regards third persons, represented by the sub-agent, and is bound by and responsible for his acts, as if he were an agent originally appointed by the principal.
- (b) The agent is responsible to the principal for the acts of the sub-agent.
- (c) The sub-agent is responsible for his acts to the agent, but not to the principal except in case of fraud or willful wrong.

## **5.6 Income Tax Act, 1961**

Some of the important definitions related to Income Tax Act are as follows:

- (i) Domestic Company means an Indian company, or any other company which, in respect of its income liable to tax under this act, has made the prescribed arrangements for the declaration and payment, within India, of the dividends (including dividends on preference shares) payable out of such income, as per Section 2 (22A).
- (ii) Dividend, according to Section 2(22) includes:
  - (a) any distribution by a company of accumulated profits, whether capitalised or not, if such distribution entails the release by the company to its shareholders of all or any part of the assets of the company;
  - (b) any distribution to its shareholders by a company of debentures, debenture-stock, or deposit certificates in any form, whether with or without interest, and any distribution to its preference shareholders of shares by way of bonus, to the extent to which the company possesses accumulated profits, whether capitalised or not;

- (c) any distribution made to the shareholders of a company on its liquidation, to the extent to which the distribution is attributable to the accumulated profits of the company immediately before its liquidation, whether capitalised or not;
- (d) any distribution to its shareholders by a company on the reduction of its capital, to the extent to which the company possesses accumulated profits which arose after the end of the previous year ending next before the 1st day of April, 1933, whether such accumulated profits have been capitalised or not;
- (e) any payment by a company, not being a company in which the public are substantially interested, of any sum (whether as representing a part of the assets of the company or otherwise) made after the 31st May, 1987, by way of advance or loan to a shareholder, being a person who is the beneficial owner of shares (not being shares entitled to a fixed rate of dividend whether with or without a right to participate in profits) holding not less than ten per cent of the voting power, or to any concern in which such shareholder is a member or a partner and in which he has a substantial interest (hereafter in this clause referred to as the said concern) or any payment by any such company on behalf, or for the individual benefit, of any such shareholder, to the extent to which the company in either case possesses accumulated profits;

but 'dividend' does not include:

- (a) a distribution made in accordance with sub-clause (c) or sub-clause (d) in respect of any share issued for full cash consideration, where the holder of the shares is not entitled in the event of liquidation to participate in the surplus assets;
- (b) a distribution made in accordance with sub-clause (c) or sub-clause (d) in so far as such distribution is attributable to the capitalised profits of the company representing bonus shares allotted to its equity shareholders after the 31st day of March, 1964 (and before the 1st day of April, 1965);
- (c) any advance or loan made to a shareholder (or the said concern) by a company in the ordinary course of its business, where the lending of money is a substantial part of the business of the company;
- (d) any dividend paid by a company which is set off by the company against the whole or any part of any sum previously paid by it and treated as a dividend within the meaning of sub-clause (e), to the extent to which it is so set off;
- (e) any payment made by a company on purchase of its own shares from a shareholder in accordance with the provisions of section 77A of the Companies Act, 1956.

- (f) any distribution of shares pursuant to a demerger by the resulting company to the shareholders of the demerged company (whether or not there is a reduction of capital in the demerged company).
- (iii) Dividend Income (Section 8): For the purposes of inclusion in the total income of an assessee:
  - (i) any dividend declared by a company or distributed or paid by it within the meaning of sub-clause (a) or sub-clause (b) or sub-clause (c) or sub-clause (d) or sub-clause (e) of clause (22) of Section 2, should be deemed to be the income of the previous year in which it is so declared, distributed or paid, as the case may be;
  - (ii) any interim dividend should be deemed to be the income of the previous year, in which the amount of such dividend is unconditionally made available by the company to the member who is entitled to it.
- (iv) Interest on Securities (Clause 28B of Section 2) means:
  - (i) interest on any security of the Central Government or a State Government,
  - (ii) interest on debentures or other securities for money issued by or on behalf of a local authority or a company or a corporation established by a Central, State or provincial Act.
- (v) Capital Asset
  - (i) Long term capital asset means a capital asset which is not a short term capital asset, as per Clause 29A of Section 2.
  - (ii) Short term capital asset means a capital asset held by an assessee for not more than thirty-six months\* immediately preceding the date of its transfer, (Clause 42A of Section 2)\* twelve months in the case of a share held in a company or any other security listed in a recognised stock exchange in India or a unit of the Unit Trust of India established under the Unit Trust of India Act, 1963 or a unit of a Mutual Fund specified under clause (23D) of section 10 or a zero coupon bond.
- (vi) Capital Gains (Section 45)

Any profits or gains arising from the transfer of a capital asset effected in the previous year should, save as otherwise provided in sections (54, 54B, 54D, 54E, 54EA, 54EB, 54F, 54G and 54H), be chargeable to income-tax under the head 'Capital gains', and should be deemed to be the income of the previous year in which the transfer took place.

Where any person has had at any time during previous year any beneficial interest in any securities, then any profits or gains arising from transfer made by the depository or participant of such beneficial interest in respect of securities should be chargeable to income-tax as the income of the beneficial owner of the previous year in which such transfer took place and should not be regarded as income of the depository who is deemed to be registered owner of securities by virtue of sub-section (1) of section 10 of the Depositories Act, 1996, and for the purposes of section 48 and provision to clause (42A) of section 2, the cost of acquisition and the period of holding of any securities should be determined on the basis of the first-in-first-out method.

### ***Types of Capital Gains***

1. Long term Capital Gain means capital gain arising from the transfer of a long term capital asset.
2. Short term Capital Gain means capital gain arising from the transfer of a short term capital asset.

### ***PAN compulsory for Securities transaction***

The Income-tax (Eighth Amendment) Rules, 2002 made it mandatory for a person to quote permanent account numbers (PAN), issued by the income tax department, for securities transactions of over Rs. 1 lakh.

#### **Tax on long-term capital gains (Section 112)**

Where the total income of an assessee includes any income, arising from the transfer of a long-term capital asset, which is chargeable under the head 'Capital gains', the tax payable by the assessee on the total income should be the aggregate of:

- (i) in the case of an individual or a Hindu Undivided Family, being a resident:
  - (a) the amount of income-tax payable on the total income as reduced by the amount of such long-term capital gains, had the total income as so reduced been his total income; and
  - (b) the amount of income-tax calculated on such long-term capital gains at the rate of twenty per cent:
- (ii) in the case of a domestic company:
  - (a) the amount of income-tax payable on the total income as reduced by the amount of such long-term capital gains, had the total income as so reduced been its total income; and

- (b) the amount of income-tax calculated on such long-term capital gains at the rate of twenty per cent
- (iii) in the case of a non-resident (not being a company) or a foreign company:
  - (a) the amount of income-tax payable on the total income as reduced by the amount of such long-term capital gains , had the total income as so reduced been its total income; and
  - (b) the amount of income-tax calculated on such long-term capital gains at the rate of twenty percent
- (iv) in any other case of a resident:
  - (a) the amount of income-tax payable on the total income as reduced by the amount of long-term capital gains, had the total income as so reduced been its total income; and
  - (b) the amount of income-tax calculated on such long-term capital gains at the rate of twenty per cent

Where the gross total income of an assessee includes any income arising from the transfer of a long term capital asset, the gross total income should be reduced by the amount of such income and the deduction should be allowed as if the gross total income as so reduced were the gross total income of the assessee. Where the total income of an assessee includes any income arising from the transfer of a long-term capital asset, the total income should be reduced by the amount of such income and the rebate under section 88 should be allowed from the income-Tax on the total income as so reduced.

# CHAPTER 6: FUNDAMENTAL VALUATION CONCEPTS

## 6.1 Time Value of Money

Money has time value. A rupee is less valuable in the future than it is today. Time value of money could be studied under the following heads:

- (a) Future value of a single cash flow
- (b) Future value of an annuity
- (c) Present value of a single cash flow
- (d) Present value of an annuity

### 6.1.1 Future Value of a Single Cash Flow

For a given present value (PV) of money, future value of money (FV) after a period 't' for which compounding is done at an interest rate of 'r', is given by the equation

$$FV = PV (1+r)^t$$

This assumes that compounding is done at discrete intervals. However, in case of continuous compounding, the future value is determined using the formula

$$FV = PV * e^{rt}$$

where the compounding factor is calculated by taking natural logarithm (log to base).  
 $e=2.71828$

Example 1: Calculate the value 5 years hence of a deposit of Rs.1,000 made today if the interest rate is 10%.

Solution: By discrete compounding

$$FV = 1,000 * (1+0.10)^5 = 1,000 * (1.1)^5 = 1,000 * 1.61051 = \text{Rs.}1,610.51$$

By continuous compounding:

$$FV = 1,000 * e^{(0.10 * 5)} = 1,000 * 1.648721 = \text{Rs.}1,648.72$$

Example 2: Find the value of Rs. 50,000 deposited for a period of 3 years at the end of the period when the interest is 10% and continuous compounding is done.

Solution: Future Value =  $50,000 * e^{(0.01*10*3)} = \text{Rs. } 67,493.00$

The future value (FV) of the present sum (PV) after a period 't' for which compounding is done 'm' times a year at an interest rate of 'r', is given by the equation

$$FV = PV (1+(r/m))^{mt}$$

Example 3: How much does a deposit of Rs. 5,000 grow to at the end of 3 years, if the nominal rate of interest is 10% and compounding is done quarterly?

Solution: Future value =  $5,000 * ((1 + 0.10/4)^{(4*3)}) = \text{Rs. } 6,724.45$

### **6.1.2 Future Value of an Annuity**

The future value (FV) of a uniform cash flow (CF) made at the end of each period till the time of maturity 't' for which compounding is done at the rate 'r' is given by

$$\begin{aligned} \text{FV} &= \text{CF} * (1+r)^{t-1} + \text{CF} * (1+r)^{t-2} + \dots + \text{CF} * (1+r)^1 + \text{CF} \\ &= \text{CF} [\{(1+r)^t - 1\} / r] \end{aligned}$$

Example 4: Suppose, you deposit Rs. 1,000 annually in a bank for 5 years and your deposits earn a compound interest rate of 10 per cent, what will be value of this series of deposits (an annuity) at the end of 5 years? Assume that each deposit occurs at the end of the year.

Solution: Future value of this annuity is:

$$\begin{aligned} &= \text{Rs. } 1000 * (1.10)^4 + \text{Rs. } 1000 * (1.10)^3 + \text{Rs. } 1000 * (1.10)^2 + \text{Rs. } 1000 * (1.10) + \text{Rs. } 1000 \\ &= \text{Rs. } 1000 * (1.4641) + \text{Rs. } 1000 * (1.3310) + \text{Rs. } 1000 * (1.2100) + \text{Rs. } 1000 * (1.10) + \text{Rs. } 1000 \\ &= \text{Rs. } 6,105.00 \end{aligned}$$

In case of continuous compounding, the future value of annuity is determined using the formula  $\text{FV} = \text{CF} * (e^{rt} - 1)/r$

### **6.1.3 Present Value of a Single Cash Flow**

Present value of (PV) of the future sum (FV) to be received after a period 't' for which discounting is done at an interest rate of 'r', is given by the equation

In case of discrete discounting:  $\text{PV} = \text{FV} / (1+r)^t$

Example 5: What is the present value of Rs.1,000 payable 3 years hence, if the interest rate is 12 % p.a.

Solution:  $\text{PV} = 1000 / (1.12)^3 \text{ i.e. } = \text{Rs. } 711.78$

In case of continuous discounting:  $\text{PV} = \text{FV} * e^{-rt}$

Example 6: What is the present value of Rs. 50,000 receivable after 3 years at a discount rate of 10% under continuous discounting?

Solution: Present Value =  $50,000 / (\exp^{(0.01*10*3)}) = \text{Rs. } 37,041.00$

### **6.1.4. Present Value of an Annuity**

The present value of annuity is the sum of the present values of all the cash inflows/outflows.

Present value of an annuity (in case of discrete discounting)

$$PV = FV \left[ \frac{(1+r)^t - 1}{r * (1+r)^t} \right]$$

Present value of an annuity (in case of continuous discounting)  $PV_a = FV_a * (1 - e^{-rt})/r$

## 6.2 Understanding Financial Statements

Accounting is a system of collecting, summarizing, analyzing and reporting in monetary terms, financial status of an organization. The end product of the financial accounting is the financial statements consisting of Balance Sheet and Profit & Loss Account.

As the name suggests, balance sheet provides information about financial position of a firm at a particular point of time. On the other hand, Profit & Loss Account of a firm portrays as a flow statement, the results of operations over a specified period of time (usually accounting year, April-March). The Balance Sheet contains information pertaining to firm's assets, liabilities and shareholders' equity whereas Profit & Loss Account summarizes the revenue items, the expense items and the difference between the two (net income) for an accounting period.

Mere statistics/data presented in the different financial statements do not reveal the true picture of a financial position of a firm. Properly analyzed and interpreted financial statements can provide valuable insights into a firm's performance. To extract the information from the financial statements, a number of tools are used to analyse these statements. The popular tools are:

- (a) Comparative Financial Statements,
- (b) Common sized Statements, and
- (c) Ratio Analysis.

### 6.2.1 Comparative Financial Statements

This involves putting statements for two periods/organizations in a comparative form and indicating differences between them in terms of rupees and percentages.

Example 7: Financial statement of XYZ Ltd. for the years 2000 and 2001 are compared as under:

Particulars	Amount (in Rs. Lakh)		Increase/Decrease	
	2000	2001	in amount	in %
Equity Share Capital	15.00	15.00	-	-
Debentures	9.00	6.00	(-) 3.00	(-) 33.33
Current Liabilities	10.00	10.50	(+) 0.50	(+) 5.00
Land and Building	13.00	13.00	-	-
Investments	8.00	10.00	(+) 2.00	(+) 25.00
Current Assets	13.00	8.50	(-) 4.50	(-) 34.62



### 6.2.2 Common Size Statements

This involves putting statements for two years/organizations in a comparative form, where the items appear in percentage to total, rather than in absolute rupee form. This indicates relative importance of each item in the total and significant changes in the composition of the items.

Example 8: Common size statement of ABC Ltd. for the years 2000 and 2001 is as under:

Particulars	Amount (in Rs. Lakh)		Increase/Decrease	
	2000	2001	2000	2001
Equity Share Capital	15.00	15.00	23.62	16.17
Debentures	9.00	6.00	14.17	6.47
Current Liabilities	10.00	10.50	15.75	11.32
Land and Building	13.00	13.00	20.47	14.02
Investments	8.00	10.00	12.60	10.78
Current Assets	13.00	8.50	13.39	41.23
Total	63.50	92.74	100.00	100.00

### 6.2.3 Ratio Analysis

A ratio is a numerical relationship between two numbers (in financial statements) in terms of proportion, rate or percentage. The popular ratios are discussed in the following paragraphs:

(i) Return for Shareholders: A common (equity) shareholder has only a residual claim on profits and assets of a firm, i.e., only after claims of creditors and preference shareholders are fully met, the equity shareholders receive a distribution of profits or assets on liquidation. A measure of his well being is reflected by return on equity. There are several measures to calculate return on shareholders' equity:

(a) *Earnings Per Share (EPS)*: EPS measures the profit available to the equity shareholders on a per share basis, that is, the amount that they can get on every share held. It is calculated by dividing the profit available to the shareholders by number of outstanding shares. The profit available to the ordinary shareholders is net profit after taxes and preference dividend.

$$EPS = \text{Net profit after tax} / \text{number of ordinary shares outstanding}$$

(b) *Dividend Yield*: Dividend Yield is closely related to EPS. While the EPS is based on book value per share, the yield is expressed in terms of the market value per share. The dividend yield is calculated by dividing the cash dividends per share (DPS) by the market value per share, (not price actually paid by investors)

$$\text{Dividend yield} = \text{Dividend per share} / \text{Market Price per share} * 100$$

- (c) **Price to Earnings Ratio:** The P/E ratio reflects the price currently being paid by the market for each rupee of currently reported EPS. It measures investors' expectations and market appraisal of the performance of a firm. It is defined as:

$$\text{Price to Earnings Ratio} = \text{Market Price of share}/\text{EPS}$$

- (d) **Return on Equity:** It reflects the rate of return which a firm is able to generate on equity. This is calculated as:

$$\text{Return on Equity} = \text{Net income after tax}/\text{Equity}$$

Where

$$\text{Equity} = \text{Equity Share Capital} + \text{Reserves and Surplus}$$

- (e) **Debt to Equity Ratio:** The Debt to Equity Ratio is the ratio of debt (liabilities) to the share capital plus reserves and surplus (Networth). It is also known as Financial Leverage Ratio. It is defined as:

$$\text{Debt to Equity Ratio} = \text{Debt}/\text{Equity}$$

Higher ratio implies greater financial risk (on account of interest payment). Therefore, for a newly set up firms equity finance is preferred to debt finance.

- (ii) **Ratios for Short-term Creditors:** A short-term creditor is interested in near term prospects of having his dues paid in time. He looks at the following ratios:

- (a) **Current Ratio:** It is the most popularly used ratio to judge liquidity of a firm. It is defined as the ratio between current assets and current liabilities i.e.

$$\text{Current Ratio} = \text{Current Assets}/\text{Current Liabilities}$$

Current Assets include cash, debtors, marketable securities, bills receivable, inventories, loans and advances, and prepaid expenses, while Current Liabilities include loans and advances (taken), creditors, bills payable, accrued expenses and provisions.

It measures a firm's ability to meet short term obligations. The higher the current ratio, the more is the firm's ability to meet current obligations, and greater is the safety of funds of short term creditors.

A current ratio of 1.5:1 implies that for every one rupee of current liability, current assets of one-and-half rupees are available to meet the obligation.

- (b) **Acid-Test Ratio (Quick Ratio):** Though higher current ratio implies the greater short term solvency of the firm, the break-up of the current assets is very important to assess the liquidity of a firm. A firm with a large proportion of

current assets in the form of cash and accounts receivable is more liquid than a firm with a high proportion of inventories even though two firms might have the same ratio. A more rigorous way to ascertain a firm's liquidity is found out by acid-test/quick ratio. Inventory and prepaid expenses are excluded from the current assets, leaving only the more liquid assets to be divided by current liabilities. It is found by:

$$\text{Acid-Test Ratio} = \frac{\text{Current Assets} - (\text{Inventory} + \text{Prepaid Expenses})}{\text{Current Liabilities}}$$

(iii) Ratios for Efficiency

More popularly known as activity ratios or asset management ratios which help measure how efficiently the assets are employed by a firm under consideration. Some of the important turnover ratios are:

- (a) *Inventory Turnover Ratio*: It measures how many times a firm's inventory has been sold during a year. It is found by:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Inventory}}$$

Where, Cost of Goods Sold means Sales minus gross profit and 'Inventory' implies stock of goods at the end of the year. This ratio reflects the efficiency of inventory management. The higher the ratio, the more efficient the inventory management (i.e. how quickly/fast the inventory is sold. A high ratio is considered good from the view point of liquidity and vice versa.

- (b) *Average Collection Period*: Average collection period represents the number of days taken to collect an account. It is defined as:

$$\text{Average Collection Period} = \frac{\text{Average Accounts Receivable}}{\text{Average Daily Credit Sales}}$$

- (c) *Fixed Assets Turnover Ratio*: This ratio is used to measure the efficiency with which fixed assets are employed. A high ratio indicates an efficient use of fixed assets. Generally this ratio is high when the fixed assets are old and substantially depreciated.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Net Fixed Assets}}$$

- (d) *Gross Profit Ratio*: It is defined as ratio between gross profit to net sales i.e.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}}$$

Where, Gross Profit is defined as the difference between net sales and the cost of the goods sold.

- (e) *Net Profit Ratio: It is defined as ratio between net profit to net sales i.e.*

Net Profit Ratio = Net Profit/Net Sales

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

Example 9: from the following Balance Sheet and Profit & Loss Account of XYZ Co. Ltd., calculate the relevant ratios:

Balance Sheet of XYZ Co. Ltd as on March 31, 2000

(Rs. in Crore)

Liabilities	Amount	Assets		Amount
Share Capital	10.00	Fixed Assets (net)	0.20	34.00
(1,00,00,000 equity	15.20	Current Assets:	11.80	23.40
shares of Rs.10 each)	14.30	Cash & Bank	10.60	
Reserves & Surplus	16.90	Debtors Inventories	0.80	
Secured Loans	10.50	Pre-paid expenses	10.50	
Unsecured Loans		Investments		
Current Liabilities & Provisions				
<b>Total</b>	<b>67.90</b>	<b>Total</b>		<b>67.90</b>

Profit and Loss Account of XYZ Co. Ltd for the year ending March 31, 2000

(Rs. in Crore)

Particulars	Amount	Particulars		Amount
Opening Stock	8.00	Sales (net)		70.10
Purchases Wages and	44.70	Closing Stock		10.60
Salaries Other Mfg.	6.80			
Expenses Gross Profit	6.30			
	14.90			
<b>Total</b>	<b>80.70</b>	<b>Total</b>		<b>80.70</b>
Administrative and Personnel	1.20	Gross Profit		14.90
Expenses Selling and Distribution	1.80			
Expenses	3.00			
Depreciation Interest	2.10			
Net Profit	6.80			
<b>Total</b>	<b>14.90</b>	<b>Total</b>		<b>14.90</b>
Income Tax Equity Dividend	3.50	Net Profit		6.80
Retained	2.00			
Earning	1.30			
<b>Total</b>	<b>6.80</b>	<b>Total</b>		<b>6.80</b>

Market price per equity share - Rs. 20.00 Ratios for XYZ Limited are computed as under:

EPS	=	Net profit after tax/number of ordinary shares outstanding
	=	3.30/1.00 = Rs. 3.30 per share
Dividend yield	=	Dividend per share/Market Value per share * 100
	=	2.00/20.00 * 100 = 10.00%
Price to Earning Ratio	=	Market Price of Share/EPS.
	=	20.00/3.30 = Rs. 6.06
Return on Equity	=	Net income after tax/Equity
	=	3.30/(10.00+15.20) * 100 = 13.09%
Debt to Equity Ratio	=	Debt/ Equity
	=	(14.30+16.90)/(10.00+15.20) = 1.24
Current Ratio	=	Current Assets / Current Liabilities
	=	23.40/10.50 = 2.29
Quick Ratio	=	Quick Assets / Current Liabilities
	=	(0.20+11.80)/10.50 = 12.00/10.50 = 1.14
Inventory Turnover Ratio	=	Cost of goods sold/Inventory
	=	55.20/10.60 = 5.20
Average Collection period	=	Receivables / Average Sales per day
	=	11.80/70.1*1/360 = 61 days Fixed
Assets Turnover ratio	=	Net Sales / Fixed Assets
	=	70.10/34.00 = 2.06
Gross Profit Ratio	=	Gross Profit/Net Sales
	=	14.90/70.10 * 100 = 21%
Net Profit Ratio	=	Net Profit / Net Sales
	=	6.80/70.10 * 100 = 9.70 %

## **NCFM MODEL TEST PAPER CAPITAL MARKET (DEALERS) MODULE**

- Q.1 Appeal against the orders Securities and Exchange Board of India can be made to \_\_\_\_\_ . [2 Marks]
- (a) Central Government
  - (b) Securities Appellate Tribunal
  - (c) Registrar of Companies
  - (d) High Court
- Q.2 In case, a body corporate is applying for trading membership in the capital market segment of NSEIL, [3 Marks]
- (a) at least 5 directors should be graduates of whom one should be a professional.
  - (b) atleast two directors should be graduates and have minimum of 2 years experience of securities market.
  - (c) no prior experience is required.
  - (d) all the directors should be graduates.
- Q.3 What is the purpose of 'Trade Log' report on the NEAT system? [2 Marks]
- (a) There is no report as 'Trades Log' report.
  - (b) To show the trades that have only been cancelled or modified orders for the dealers belonging to a trading member for the current trading day.
  - (c) To show the details of the trade related activity by the trading member for a specific day.
  - (d) To show the trades that was done by the trading member for the last seven days.
- Q.4 In ASBA, the amount is blocked in [2 Marks]
- (a) Trading members account
  - (b) Investors own account
  - (c) Both A and B
  - (d) None of the above
- Q.5 The Capital Market Segment of NSE commenced operations in [1 Marks]
- (a) Sep-96
  - (b) Nov-94
  - (c) Aug-96
  - (d) Nov-96

Q.6 obligates the depositories to maintain ownership records of securities and effect changes in such records electronically at the behest of the owner of the securities. [2 Marks]

- (a) The Depositories Act, 1996
- (b) The SEBI Act, 1992
- (c) The Securities Contract (Regulation) Act, 1956
- (d) The Companies Act, 1956

Q.7 The first two characters in ISIN code for a security represents. [1 Marks]

- (a) issuer type
- (b) security type
- (c) country code
- (d) company identity

Q.8 Which of the following is true regarding the norms and procedures pertaining to surrender of membership ?

- (a) A trading member desirous of surrendering membership has to give its request in writing in a prescribed form
  - (b) The original SEBI registration certificates for all trading segments have to be submitted by the trading member.
  - (c) Sub-broker registration certificates have to be submitted
  - (d) All leased lines and VSATs will not be dismantled for the surrendering trading member.
- [3 Marks]

- (a) a,b,c
- (b) a,c
- (c) a,d
- (d) a,b,c,d

Q.9 If the eighth and ninth character of the ISIN is mentioned as 04, what does it indicate [2 Marks]

- (a) security is security receipt
- (b) security is non-convertible preference share
- (c) security is a warrant
- (d) security is equity share / mutual fund

- Q.10 Activities in the 'Activity Log' screen on the NEAT system are displayed in. [2 Marks]
- (a) chronological order where within the order number, the details appear with the oldest activity first and the latest last
  - (b) descending order of order numbers
  - (c) ascending order of order numbers
  - (d) reverse chronological order
- Q.11 The 'Snap Quote' screen in the NEAT system enables the user to view \_\_\_\_\_. [1 Marks]
- (a) instantaneous market information on a desired security.
  - (b) best five quotes in the market.
  - (c) quotes in the normal market.
  - (d) None of the above.
- Q.12 Clearing and settlement of trades and risk management are central functions of NSCCL. [2 Marks]
- (a) FALSE
  - (b) TRUE
  - (c) Not Attempted
- Q.13 Who provides counter party guarantee for all trades executed on NSEIL? [1 Marks]
- (a) NSE Clearing House
  - (b) NSEIL
  - (c) NSDL
  - (d) NSCCL[1 Marks]
- Q.14 Which of the following is FALSE about auctions in the NEAT system? [2 Marks]
- (a) All auction orders are entered into the auction order book.
  - (b) Auction matching takes place only across orders belonging to the same auction.
  - (c) All auction trades take place at the last traded price for that day in the regular lot book in the normal market.
  - (d) Auction order matching takes place at the end of the solicitor period for the auction.
- Q.15 Is order cancellation and order modification allowed for orders entered in the retail debt market segment. [2 Marks]
- (a) FALSE
  - (b) TRUE



- Q.16 The FIIs can invest in a company upto \_\_\_\_\_% of the paid up capital of the company. This percentage can be increased upto the sectoral cap as applicable to the Indian Companies by passing a resolution of its board of directors. [2 Marks]
- (a) 32
  - (b) 26
  - (c) 28
  - (d) 24
- Q.17 Are secured loans a part of Liability or Asset in balance sheet ? [1 Marks]
- (a) Liability
  - (b) Asset
  - (c) Not Attempted
- Q.18 Member can procure the CTCL Software from - a) Vendors empanelled with NSE  
b) Non-empanelled Vendors c) Develop in-house d) All of the above [1 Marks]
- (a) b
  - (n) a
  - (o) c
  - (p) d
- Q.19 The Client registration form is filled by the client when \_\_\_\_\_. [2 Marks]
- (a) client delivers spurious shares
  - (b) broker has to file FIR against client
  - (c) client enrolls himself with the broker
  - (d) client defaults in making payments
- Q.20 The corporate action indicator XB on the NEAT system stands for [2 Marks]
- (a) ex-dividend
  - (b) ex-bonus
  - (c) ex-rights
  - (d) ex-interest
- Q.21 Which of the following statements is NOT correct? [1 Marks]
- (a) Depository is registered owner of the securities held in demat form.
  - (b) Securities in a depository are fungible.
  - (c) Securities in a depository are held in dematerialised form.
  - (d) Dematerialised securities have distinct numbers.

- Q.22 Do clearing banks provide stock lending facilities ? [1 Marks]
- (a) FALSE
  - (b) TRUE
  - (c) Not Attempted
- Q.23 SEBI has prescribed the Code of Conduct for the sub-brokers in [1 Marks]
- (a) Indian Contract Act, 1872
  - (b) Securities Contracts (Regulation) Act, 1956
  - (c) Companies Act, 1956
  - (d) SEBI (Stock Brokers and Sub-Brokers) Regulations, 1992.
- Q.24 A stockbroker means a member of \_\_\_\_\_. [1 Marks]
- (a) SEBI
  - (b) any exchange
  - (c) a recognised stock exchange
  - (d) any stock exchange
- Q.25 What price does a market order take, in case the security has never been traded on the NEAT system? [2 Marks]
- (a) The market order gets cancelled by the system.
  - (b) Market orders cannot be entered for a security in which a trade has not taken place.
  - (c) The market order takes the value of the base price and sits in the order book as a passive order.
  - (d) None of the above
- Q.26 Member A places a buy order for 1000 shares of ABC Ltd. in the NEAT system at 11:22:01 for Rs.155 per share. Member B places a sell order for 2000 shares of ABC Ltd. at 11:22:02 for Rs.150 per share. Assume that no other orders were available in the system during this time. Whether the trade will take place and if yes, at what price? [1 Marks]
- (a) 1000 shares get traded at Rs. 150 per share.
  - (b) 1000 shares get traded at Rs. 150.50 per share.
  - (c) 1000 shares get traded at Rs. 152.50 per share.
  - (d) 1000 shares will get traded at Rs. 155 per share.

- Q.27 VaR margin is charged at differential rate on the \_\_\_\_\_ position of the client in each security. [2 Marks]
- (a) Only sale
  - (b) Only buy
  - (c) Gross outstanding
  - (d) Net outstanding
- Q.28 Nifty index drops by 15% at 3:00 pm. Market will be halted \_\_\_\_\_. [2 Marks]
- (a) by half an hour
  - (b) for remainder of the day
  - (c) for ten minutes
  - (d) for fifteen minutes
- Q.29 What is FALSE about an outstanding order on the NEAT system? [2 Marks]
- (a) It is an order that has been entered by the user and is partially matched.
  - (b) It is a stop loss order that has not yet been triggered in the market.
  - (c) It is an order that has been entered by the user and not yet been traded.
  - (d) It is an order that has been entered by the user, but which has not yet been completely traded or cancelled.
- Q.30 Which of the following is NOT true about SEBI? [2 Marks]
- (a) It determines the premium/discounts at which securities are to be issued.
  - (b) It can specify the matters to be disclosed and the standards of disclosure required for the protection of investors in respect of issues.
  - (c) Its regulatory jurisdiction extends over all intermediaries and persons associated with the securities market.
  - (d) Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities.
- Q.31 Which of the following is NOT true about corporate securities market reforms? [1 Marks]
- (a) The secondary market overcame the geographical barriers by moving to screen based trading.
  - (b) Counter-party risk is borne by investors.
  - (c) The trading cycle in the stock exchanges follow rolling settlement.
  - (d) The practice of allocation of resources among different competing entities as well as its terms by a central authority was discontinued.

Q.32 A portfolio contains securities with the expected return as follows:-

Security	Probability	Return
A	50	10
B	30	25
C	20	40

What will be the expected return of the portfolio?

[1 Marks]

- (a) 1.75
- (b) 20.5
- (c) 1,980
- (d) 43

Q.33 Which of the following is FALSE about order cancellation in the NEAT system? [2 Marks]

- (a) Order Cancellation functionality is available for all book types.
- (b) The user is allowed to cancel auction initiation and competitor orders in auction market.
- (c) Order Cancellation functionality can be performed only for orders which have not been fully or partially traded (for the untraded part of partially traded orders only).
- (d) Order Cancellation functionality can be performed during market hours and in pre open period

Q.34 The maximum amount of claim payable from the IPF to the investor (where the trading member through whom the investor has dealt is declared a defaulter) is \_\_\_\_\_.

- (a) Rs. 15 lakh
- (b) Rs. 10 lakh
- (c) Rs. 17 lakh
- (d) Rs. 1 lakh

[2 Marks]

Q.35 ABC Bank Ltd has a policy of continuous compounding of fixed deposits. Abhishek has deposited Rs. 60,000 at the interest rate of 12% for 3 years. How much would his deposit grow upto at the end of the term? [2 Marks]

- (a) 82,068.81
- (b) 87,730.8
- (c) 77,047.12
- (d) 85,999.97
- (e) Not Attempted

- Q.36 When a user logs in for the first time in the trading system of CM segment, he has to enter the default password provided by the Exchange. What is this default password?
- (a) NEAT
  - (b) DEFAULTPSWD
  - (c) NEATCM
  - (d) NEATPASSWORD
- [1 Marks]
- Q.37 Which of the following statement(s) is/are true pertaining to Mark - to - Market margin?
- a) It is calculated by marking each transaction in security to the closing price of the security at the end of trading.
  - b) The margin is collected from the member before the start of the trading of the next day.
  - c) The MTM margin is collected on the gross open position of the member.
- [1 Marks]
- (a) a,b
  - (b) a,b,c
  - (c) a,c
  - (d) b,c
- Q.38 If the eighth and ninth character of the ISIN is mentioned as 12, what does it indicate
- (a) security is deep discount bond
  - (b) security is a floating rate bond
  - (c) security is regular return bond / promissory note
  - (d) security is step discount bond
- [2 Marks]
- Q.39 If a client buys shares worth Rs. 1,25,000 and sells shares worth Rs. 75,000 through a broker, then the maximum brokerage payable to him is \_\_\_\_\_. [2 Marks]
- (a) Rs. 5,000
  - (b) Rs. 24,000
  - (c) Rs. 20,000
  - (d) Rs. 16,000
- Q.40 In case of surrender of the membership at NSEIL, \_\_\_\_\_. [2 Marks]
- (a) the matter is treated as confidential
  - (b) only the members are notified by way of a circular
  - (c) the surrendering member is permitted to trade with a limited exposure
  - (d) advertisement is issued in leading dailies

- Q.41 A trading member on the NSE, has set the branch order value unlimited for his Chennai branch and Rs. 650 lakh for Kolkata branch. Chennai branch has two users 'X' and 'Y' with user order value limits of Rs. 250 lakh and Rs. 300 lakh respectively. Kolkata branch has one user 'Z' with user order value limit of Rs. 350 lakh. The member applies for a new user at Kolkata. What is the maximum user order value that can be set for the new user? [3 Marks]
- (a) Rs. 300 lakh
  - (b) unlimited
  - (c) Zero
  - (d) Not more than Rs. 650 lakh
- Q.42 An application for arbitration can be filed within \_\_\_\_\_ from the date of dispute. [1 Marks]
- (a) 3 months
  - (b) 45 days
  - (c) 6 months
  - (d) 1 year
- Q.43 SEBI (Intermediaries) Regulations 2008 are not applicable for foreign venture capital investors. [1 Marks]
- (a) TRUE
  - (b) FALSE
- Q.44 Which of the following requirements by intermediaries are laid down by the SEBI (Intermediaries) Regulations, 2008 for all the Intermediaries. [1 Marks]
- (a) Grant of Registration
  - (b) Code of Conduct
  - (c) Common procedure for action in case of default.
- (a) b,c
  - (b) a,b,c
  - (c) b
  - (d) a,b
- Q.45 Which of the following is not a delivery report ? [2 Marks]
- (a) Memberwise withheld securities statement
  - (b) Margin Report
  - (c) Client Allocation Details
  - (d) Demat Final Delivery Statement

- Q.46 Who can set Branch Order Value limits on the NEAT system? [2 Marks]
- (a) None of the above
  - (b) Dealer
  - (c) Corporate manager
  - (d) Branch manager
- Q.47 If the eighth and ninth character of the ISIN is mentioned as 07, what does it indicate [2 Marks]
- (a) security is non-convertible preference share
  - (b) security is a warrant
  - (c) security is equity share / mutual fund
  - (d) security is secured debenture
- Q.48 If a client buys shares worth Rs. 90,000 and sells shares worth Rs. 1,10,000 through a stock-broker, then the maximum brokerage payable is Marks]
- (a) Rs. 4,000
  - (b) Rs. 6,000
  - (c) Rs. 2,000
  - (d) Rs. 5,000
- Q.49 If the eighth and ninth character of the ISIN is mentioned as 08, what does it indicate [2 Marks]
- (a) security is equity share / mutual fund
  - (b) security is non-convertible preference share
  - (c) security is secured debenture
  - (d) security is an unsecured debenture
- Q.50 NSE's Certification in Financial Markets is NOT a testing and certification system. [1 Marks]
- (a) nation-wide
  - (b) conventional
  - (c) fully automated
  - (d) online
- Q.51 The securities market has two segments primary and secondary.  
Is the above statement True or False [1 Marks]
- (a) FALSE
  - (b) TRUE

Q.52 Auction is held in XYZ for 10,000 shares.

The closing price of XYZ on that day was Rs.146.00 The last traded price of XYZ on that day was Rs.141.00 The close price of XYZ last Friday was Rs.142.00

The previous day's close price of XYZ was Rs.151.00

What is the maximum allowable price at which the member can put a sell order in the auction for XYZ? (Price band applicable for Auction market is +/-15%) [3 Marks]

- (a) Rs. 167.90
- (b) Rs. 173.65
- (c) Rs. 163.30
- (d) Rs. 162.15

Q.53 In case of failure to give delivery in a limited physical market, close out price is \_\_\_\_\_% over the actual trade price. [2 Marks]

- (a) 20
- (b) 25
- (c) 15
- (d) 30

Q.54 \_\_\_\_\_ price is the price for orders after the orders get triggered from the stop loss book [1 Marks]

- (a) Limit
- (b) Trigger
- (c) Not Attempted

Q.55 A depository participant [1 Marks]

- (a) is an investor who buys/sells shares through the depository.
- (b) trades in the dematerialised shares.
- (c) destroys the share certificates and makes a credit entry for his clients.
- (d) is an agent of the depository and takes physical share certificates from his clients and sends them for dematerialisation.

Q.56 Under the Member Constituent Agreement, trading members are required to make the clients aware of which of the following

- (a) trading segment in which the trading member is admitted
- (b) SEBI Registration number
- (c) basic risks involved in trading on the Exchange

[1 Marks]

- (a) b,c
- (b) a,b
- (c) a,c
- (d) a,b,c



- Q.57 Mr. Desai has decided to deposit Rs. 100,000 in the bank annually. If the bank has a policy of continuous compounding and the prevailing interest rate is 11.5% how much would his deposit grow upto in 2 years? [2 Marks]
- (a) 166,141.11
  - (b) 171,507.54
  - (c) 185,570.7
  - (d) 224,871.26
- Q.58 Which of the following is deemed to be price sensitive information
- (a) periodical financial results of the company
  - (b) intended declaration of dividends (both interim and final)
  - (c) issue of securities or buy back of securities
  - (d) any major expansion plans or execution of new projects
- (a) b,c,d
  - (b) a,b,c,d
  - (c) c,d
  - (d) a,b,c
- Q.59 Which of the following statements is FALSE about the NEAT system? [1 Marks]
- (a) All orders placed on NEAT must necessarily result in trades.
  - (b) Orders are matched automatically by the computer keeping the system transparent, objective and fair.
  - (c) All orders received on the system are sorted with the best priced order getting the first priority for matching.
  - (d) Similarly priced orders are sorted on time priority basis.
- Q.60 If the third character of the ISIN is mentioned as 'E' what does this denote ? [2 Marks]
- (a) The issuer is company, statutory corporation, banking company
  - (b) The issuer is mutual fund
  - (c) The issuer is state government
  - (d) The issuer is municipal corporation

## Answers

1 (b)	21 (d)	41 (a)
2 (b)	22 (b)	42 (c)
3 (c)	23 (d)	43 (a)
4 (a)	24 (c)	44 (b)
5 (b)	25 (c)	45 (b)
6 (a)	26 (d)	46 (c)
7 (c)	27 (d)	47 (d)
8 (a)	28 (b)	48 (d)
9 (b)	29 (b)	49 (d)
10 (a)	30 (a)	50 (b)
11 (a)	31 (b)	51 (b)
12 (b)	32 (b)	52 (b)
13 (d)	33 (b)	53 (a)
14 (c)	34 (a)	54 (a)
15 (b)	35 (d)	55 (d)
16 (d)	36 (c)	56 (d)
17 (a)	37 (b)	57 (d)
18 (d)	38 (d)	58 (b)
19 (c)	39 (a)	59 (a)
20 (b)	40 (d)	60 (a)