Volume XI 2008

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Stock of the nation

Indian Securities Market

A Review

NATIONAL STOCK EXCHANGE OF INDIA LIMITED

A Review

Indian Securities Market

Volume XI 2008

This publication reviews the developments in the securities market in India

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ABBREVIATIONS

ADB	Asian Development Bank
ADRs	American Depository Receipts
AIFIs	All India Financial Institutions
ALBM	Automated Lending and Borrowing Mechanism
ALBRS	Automated Lending and Borrowing under Rolling Settlement
AMC	Asset Management Company
AMFI	Association of Mutual Funds in India
ASC	Accounting Standards Committee
ASE	Ahmedabad Stock Exchange
ATM	At-The-Money
ATSs	Alternative Trading system
B2B	Business-to-Business
BIFR	Board for Industrial and Financial Reconstruction
BIS	Bank for International Settlement
BLESS	Borrowing and Lending Securities Scheme
BMC	Base Minimum Capital
BSE	The Stock Exchange, Mumbai
CBDT	Central Board of Direct Taxes
CC	Clearing Corporation
CDs	Certificate of Deposits
C&D	Corporatisation and Demutualisation
CH	Clearing House
CCIL	Clearing Corporation of India Limited
CDSL	Central Depository Services (India) Limited
CFM	Carry Forward Margin
CFRS	Carry Forward under Rolling Settlement
CIMC	Collective Investment Management Company
CISs	Collective Investment Schemes
CIVs	Collective Investment Vehicles
CLA	Central Listing Authority
CLF	Collateralised Lending Facility
CM	Clearing Member
CM Segment	Capital Market Segment of NSE
CMIE	Centre for Monitoring Indian Economy

COSI	Committee on Settlement Issues
COTI	Committee of Trade Issues
CP	Custodial Participant
CPs	Commercial Papers
CPSS	Committee on Payment and Settlement Issues
CRAs	Credit Rating Agencies
CRISIL	The Credit Rating Information Services of India Limited
CRR	Cash Reserve Ratio
CSD	Collateral Security Deposit
CSE	Calcutta Stock Exchange
DCA	Department of Company Affairs
DDBs	Deep Discount Bonds
DEA	Department of Economic Affairs
DFIs	Development Financial Institutions
DIP	Disclosure and Investor Protection
DNS	Deferred Net Settlement
DPs	Depository Participants
DRR	Debenture Redemption Reserve
DSCE	Debt Securities Convertible into Equity
DvP	Delivery versus Payment
ECBs	External Commercial Bodies
ECNS	Electronic communication Networks
EDGAR	Electronic Data Gathering, Analysis and Retrieval
EDIFAR	Electronic Data Information Filing and Retrieval
EFT	Eletronic Fund Transfer
ELN	Equity Linked Notes
ELSS	Equity Linked Saving Schemes
EPS	Earning Per Share
ETFs	Exchange Traded Funds
FIA	Futures Industry Association
F&O	Futures and Options
FCCBs	Foreign Currency Convertible Bonds
FCDs	Fully Convertible Debentures
FDI	Foreign Direct Investment
FDRs	Foreign Deposit Receipts
FDs	Fixed Deposits
FEMA	Foreign Exchange Management Act
FIBV	International World Federation of Stock Exchanges

FII	Foreign Institutional Investment
FIIs	Foreign Institutional Investors
FIMMDA	Fixed Income Money Markets and Derivatives Association
FIs	Financial Institutions
FMCG	Fast Moving Consumer Goods
FMPs	Fixed Maturity Plans
FoFs	Fund of Funds
FPOs	Further Public Offerings
FRAs	Forward Rate Agreements
FSAP	Financial Sector Assesment Program
FVCIs	Foreign Venture Capital Investors
GDP	Gross Domestic Product
GDRs	Global Deposit Receipts
GDRs	Gross Domestic Savings
GNP	Gross National Product
GOI	Government of India
G-Sec	Government Securities
GSO	Green Shoe Option
i-BEX	ICICI Securities Bond Index
ICAI	Institute of Chartered Accountants of India
ICICI	Industrial Credit and Investment Corporation of India Limited.
ICSE	Inter-Connected Stock Exchange of India Limited
IBRD	International Bank for Reconstruction and Development
IDBI	Industrial Development Bank of India
IDRs	Indian Depository Receipts
IEPF	Investors Education and Protection Fund
IFC	International Finance Corporation
IFSD	Interest Free Security Deposit
IIM	Indian Institute of Management
IISL	India Index Services and Products Limited
IMF	International Monetary Fund
IOSCO	International Organisation of Securities Commission
IDFC	Infrastructure Development Finance Corporation
IPF	Investor Protection Fund
IPOs	Initial Public Offers
IRDA	Insurance Regulatory and Development Authority
IRS	Interest Rate Swap
ISIN	International Securities Identification Number

ISSA	International Securities Services Association
IT	Information Technology
ITM	In-The-Money
JPC	Joint Parliamentary Committee
LAF	Liquidity Adjustment Facility
LIC	Life Insurance Corporation of India Limited
MCFS	Modified Carry Forward System
MFs	Mutual Funds
MFSS	Mutual Fund Service System
MIBID	Mumbai Inter-bank Bid Rate
MIBOR	Mumbai Inter-bank Offer Rate
MMMF	Money Market Mutual Fund
MNCs	Multi National Companies
MOU	Memorandum of Understanding
MoF	Ministry of Finance
MTM	Mark-To-Market
NASDAQ	National Association of Securities Dealers Automated Quotation System
NAV	Net Asset Value
NBFCs	Non-Banking Financial Companies
NCAER	National Council for Applied Economic Research
NCDs	Non-convertible Debentures
NCDS	Non-convertible Debt Securities
NCFM	NSE's Certification in Financial Markets
NDS	Negotiatied Dealing System
NEAT	National Exchange for Automated Trading
NGOs	Non-Government Organisations
NIBIS	NSE's Internet-based Information System
NIC	National Informatics Centre
NPAs	Non Performing Assets
NRIs	Non Resident Indians
NSCCL	National Securities Clearing Corporation of India Limited
NSDL	National Securities Depository Limited
NSE	National Stock Exchange of India Limited
OCBs	Overseas Corporate Bodies
OECLOB	Open Electronic Consolidated Limit Order Book
OLTL	On-line Trade Loading
OPMS	On-line Position Monitoring System
ORS	Order Routing System

OSL	Open Strata Link
OTC	Over the Counter
OTCEI	Over the Counter Exchange of India Limited
OTM	Out-of the-Money
P/E	Price Earning Ratio
PAN	Permanent Account Number
PCDs	Partly Convertible Debentures
PCM	Professional Clearing Member
PDAI	Primary Dealers Association of India
PDO	Public Debt Office
PDs	Primary Dealers
PFI	Public Finance Institution
PFRDA	Pension Fund Redulatory Development Authority
PRI	Principal Return Index
PRISM	Parallel Risk Management System
PSUs	Public Sector Undertakings
PV	Present Value
QIBs	Qualified Institutional Buyers
RBI	Reserve Bank of India
ROCs	Registrar of Companies
RTGS	Real Time Gross Settlement
SA	Stabilising Agent
SAT	Securities Appelate Tribunal
SBTS	Screen Based Trading System
SCMRD	Society for Capital Market Research and Development
S&P	Standard and Poor's
SAT	Securities Appellate Tribunal
SC(R)A	Securities Contracts (Regulation) Act, 1956
SC(R)R	Securities Contracts (Regulation) Rules, 1957
SCBs	Scheduled Commercial Banks
SDs	Satellite Dealers
SEBI	Securities and Exchange Board of India
SEC	Securities Exchange Commission
SGF	Settlement Guarantee Fund
SGL	Subsidiary General Ledger
SGX-DT	The Singapore Exchange Derivatives Trading Limited
SIPC	Securities Investor Protection Corporation
SLB	Securities Lending and Borrowing

SLR	Statutory Liquidity Ratio
SPAN	Standard Portfolio Analysis of Risks
SDL	State Development Loans
SPICE	Sensex Prudential ICICI Exchange Traded Fund
SPV	Special Purpose Vehicle
SROs	Self Regulatory Orgaisations
SSS	Securities Settlement System
STA	Share Transfer Agent
STP	Straight Through Processing
STRIPS	Separate Trading of Registered Interest and Principal of Securities
SUS 99	Special Unit Scheme 99
T-Bills	Treasury Bills
TDS	Tax Deducted at Source
TM	Trading Member
TRI	Total Return Index
UIN	Unique Identification Number
UTI	Unit Trust of India
VaR	Value at Risk
VCFs	Venture Capital Funds
VCUs	Venture Capital Undertakings
VSAT	Very Small Aperture Terminal
WAN	Wide Area Network
WAP	Wireless Application Protocol
WDM	Wholesale Debt Market Segment of NSE
YTM	Yield to Maturity
ZCYC	Zero Coupon Yield Curve

Securities Market in India – An Overview

Introduction

We are living in exciting times, witnessing a process of ever-increasing globalization and innovation in the financial markets. This is bringing with it sophistication and thus a need to better understand financial risks and develop tools to manage them. The financial markets and institutions have undergone significant changes keeping pace with the changing needs of market participants. Along side the rise of private finance, the financial markets are seeing an enhanced role of National Governments through Sovereign Wealth Funds. Venture capital funds and hedge funds have added new dimension to the market dynamics.

India has not remained untouched by these developments worldwide. With its growing and increasingly complex market-oriented economy and increasing integration with global trade and finance, India's financial system has also innovated.

In the securities markets, organisational innovation has been witnessed with corporatisation and demutualization of all the stock exchanges; institutional innovations in the form of emergence of regulators, Self Regulatory Organizations and clearing corporations and more recently, market innovations through a short selling and Securities Lending and Borrowing Scheme, Direct Market Access, addressing of the legal, regulatory, tax and market design issues in the development of the corporate bond market in the country, provision of a legal framework for trading of securitized debt, quicker procedures for registration and operation by FIIs, making PAN as the sole identification number for all transactions in securities market and new derivative products such as currency futures.

Market Segments

The securities market has two interdependent and inseparable segments, the new issues (primary) market and the stock (secondary) market. The primary market provides the channel for creation and sale of new securities, while the secondary market deals in securities previously issued. The securities issued in the primary market are issued by public limited companies or by government agencies. The resources in this kind of market are mobilized either through the public issue or through private placement route. It is a public issue if anybody and everybody can subscribe for it, whereas if the issue is made available to a selected group of persons it is termed as private placement. There are two major types of issuers of securities, the corporate entities who issue mainly debt and equity instruments and the government (central as well as state) who issue debt securities (dated securities and treasury bills).

The secondary market enables participants who hold securities to adjust their holdings in response to changes in their assessment of risks and returns. Once the new securities are issued in the primary market they are traded in the stock (secondary) market. The secondary market operates through two mediums, namely, the over-the-counter (OTC) market and the exchange-traded market. OTC markets are informal markets where trades are negotiated. Most of the trades in the government securities are in the OTC market. All the spot trades where securities are traded for immediate delivery and payment take place in the OTC market. The other option is to trade using the infrastructure provided by the stock exchanges. The exchanges in India follow a systematic settlement period. All the trades taking place over a trading cycle (day = T) are settled together after a certain time (T + 2 day). The trades executed on exchanges are cleared and settled by a clearing corporation. The clearing corporation acts as a counterparty and guarantees settlement. A variant of the secondary market is the forward market, where securities are traded for future delivery and payment. A variant of the forward market is Futures and Options market. Presently only two exchanges *viz.*, National Stock Exchange of India Ltd. (NSE) and Bombay Stock Exchange (BSE) provides trading in the Futures & Options.

International Scenario

Following the implementation of reforms in the securities industry in the past years, Indian stock markets have stood out in the world ranking. India has the distinction of having the second largest number of listed companies after the USA. As per Standard and Poor's Fact Book 2007, India ranked 8th in terms of market capitalization and 15th in terms of turnover ratio as of December 2007. India posted a turnover ratio of 84% at end 2007. Table 1-1 below present India's position vis-a-vis major international markets.

Table 1-1: International Comparison: end December 2007

Particulars	USA	UK	Japan	Germany	Singapore	Hongkong	China	India
No. of listed Companies	5,130	2,588	3,844	658	472	1,029	1,530	4,887*
Market Capitalisation (US $ bn.)	19,947	3,859	4,453	2,106	353	1,163	6,226	1,819
Market Capitalisation Ratio (%)	149.01	157.13	90.25	69.43	274.41	583.89	237.56	200.09
Turnover (US $ bn.)	42,613	10,324	6,497	3,363	384	917	7,792	1,108
Turnover Ratio (%)	216.5	270.1	141.6	179.7	122.0	89.1	180.1	84.0

*Listed companies in India pertains to BSE.
Market Capitalisation Ratio is computed as a percentage of GNI 2006
Source:S&P Global Stock Market Factbook, 2008

A comparative study of concentration of market indices and index stocks in different world markets is presented in the (Table 1-2). It is seen that the index stocks share of total market capitalization in India is 77.5% whereas US index accounted for 78.1% as on end 2007. The concentration levels in index stocks in 2006 were 81.6% for India and 89.5% for US. Thus, there is a decline in concentration in 2007. The ten largest index stocks share of total market capitalization is 26.8% in India and 12.4% in case of US.

Table 1-2: Market Concentration in the World Index as on End 2007

(in percent)

Market	Index Stocks Share of Total Market Capitalisation	10 largest Index Stocks' Share of total Market Capitalisation
Japan	73.9	14.8
Singapore	63.4	32.8
France	60.4	29.7
Germany	71.1	41.8
Italy	65.7	44.6
United Kingdom	89.7	36.0
United States	78.1	12.4
India	77.5	26.8

Source: S&P Global Stock Market Factbook, 2008

The stock markets worldwide have grown in size as well as depth over the years. As can be observed from (Table 1-3), the turnover of all markets taken together have grown from US $ 47.39 trillion in 2005 to US $ 98.82 trillion in 2007. US alone accounted for about 43.12 % of worldwide turnover in 2007. The share of India in the total world turnover increased from 0.95% in 2006 to 1.12% in 2007.

Table 1-3: Market Capitalisation and Turnover for Major Markets

(US $ million)

Country/Region	Market Capitalisation (end of period)			Turnover		
	2005	2006	2007	2005	2006	2007
Developed Markets	**36,183,389**	**42,916,705**	**46,300,864**	**41,693,067**	**59,258,415**	**82,455,174**
Australia	804,074	1,095,858	1,298,429	616,115	826,285	1,322,822
Japan	4,736,513	4,726,269	4,453,475	4,997,414	6,252,470	6,497,193
UK	3,058,182	3,794,310	3,858,505	4,167,020	4,242,082	10,324,477
USA	16,970,865	19,425,855	19,947,284	21,509,979	33,267,643	42,613,206
All Emerging Markets	**7,135,963**	**10,458,582**	**18,262,550**	**5,692,906**	**8,226,944**	**16,361,131**
China	780,763	2,426,326	6,226,305	586,301	1,635,121	7,791,702
India	553,074	818,879	1,819,101	433,900	638,484	1,107,550
Indonesia	81,428	138,886	211,693	41,900	48,831	112,851
Korea	718,180	835,188	1,123,633	1,202,976	1,340,122	1,974,015
Malaysia	181,236	235,356	325,663	49,976	66,904	150,002
Philippines	40,153	68,382	103,224	6,951	11,243	29,251
Taiwan	515,980	654,858	723,687	716,471	894,553	1,272,432
World Total	**43,319,352**	**53,375,287**	**64,563,414**	**47,385,973**	**67,485,359**	**98,816,305**
US as % of World	**39.18**	**36.39**	**30.90**	**45.39**	**49.30**	**43.12**
India as % of World	**1.28**	**1.53**	**2.82**	**0.92**	**0.95**	**1.12**

Source: S&P Global Stock Market Factbook, 2008

The market capitalization of all listed companies taken together on all markets stood at US $ 64.56 trillion in 2007 up from US $ 53.38 trillion in 2006. The share of US in worldwide market capitalization decreased from 36.39 % as at end-2006 to 30.90 % at end 2007, while Indian listed companies accounted for 2.82% of total market capitalization as at end 2007 (an increase from 1.53% at end of 2006).

According to the 'World Development Indicators 2008', World Bank there has been an increase in market capitalization as percentage of Gross Domestic Product (GDP) in some of the major country groups as is evident from (Table 1-4). The increase, however, has not been uniform across countries. The market capitalization as a percentage of GDP was the highest at 126.1% for the high income countries as at end 2006 and lowest for low income countries at 67%. The Middle income countries have shown a remarkable improvement in market capitalization to GDP ratio from 49.5% in 2005 to 74.2% in 2006.

Table 1-4: Select Stock Market Indicators

Markets	Market Capitalisation as % of GDP			Turnover Ratio (%)				Listed Domestic Companies			
	2004	2005	2006	2004	2005	2006	2007	2004	2005	2006	2007
High Income	**108.9**	**112.9**	**126.1**	**110.1**	**114.0**	**122.2**	**150.2**	**27,594**	**28,001**	**28,733**	**30,016**
Middle Income	**43.7**	**49.5**	**74.2**	**60.9**	**41.6**	**75.3**	**94.5**	**14,456**	**14,117**	**11,141**	**13,195**
Low & Middle Income	**43.8**	**50.1**	**73.3**	**72.4**	**53.7**	**78.2**	**94.3**	**22,444**	**20,873**	**17,263**	**20,106**
East Asia & Pacific	41	41.3	85.1	103.5	50.0	123.1	163.5	3,582	3,794	3,525	4,080
Europe & Central Asia	32.8	45.8	66.7	37.9	59.0	68.5	64.1	7,776	7,023	4,490	6,070
Latin America & Caribbean	39.6	44.6	51.7	22.0	26.1	29.2	34.8	1,468	1,525	1,342	1,509
Middle East & N. Africa	37.1	49.1	48.9	64.4	16.5	27.0	28.3	1,803	1,627	1,078	1,443
South Asia	48.7	60.4	77.2	131.2	120.6	108.7	101.3	6,909	6,000	5,954	6,089
Sub-Saharan Africa	129.6	137.0	159.9	39.3	27.6	32.6	30.1	906	904	874	915
Low Income	**44.5**	**54.2**	**67**	**130.5**	**107.6**	**96.6**	**93.3**	**7,988**	**6,756**	**6,122**	**6,911**
India	**56.1**	**68.6**	**89.8**	**115.5**	**93.6**	**96.4**	**95.9**	**4,730**	**4,763**	**4,796**	**4,887**
World	**96.3**	**99.6**	**113.9**	**72.4**	**53.7**	**78.2**	**94.3**	**50,038**	**48,874**	**49,946**	**50,212**

Source: World Development Indicators 2008, World Bank.

Market capitalisation as percentage of GDP in India stood at 89.8 % as at end 2006. The turnover ratio, which is a measure of liquidity, was 150.2 % for high-income countries and 93.3% for low-income countries in 2007. The total number of listed companies stood at 30,016 for high-income countries, 13,195 for middle-income countries and 6,911 for low-income countries as at end-2007.

Key strengths of the Indian securities markets

The key strengths of the Indian capital market include a fully automated trading system on all stock exchanges, a wide range of products, an integrated platform for trading in both cash and derivatives, and a nationwide network of trading through over 4,000 corporate brokers. The securities markets in India have made enormous progress in developing sophisticated instruments and modern market mechanisms.

The real strength of the Indian securities market lies in the quality of regulation. The market regulator, Securities and Exchange Board of India (SEBI) is an independent and effective regulator. It has put in place sound regulations in respect of intermediaries, trading mechanism, settlement cycles, risk management, derivative trading and takeover of companies. There is a well designed disclosure based regulatory system. Information technology is extensively used in the securities market. The NSE and BSE have most advanced and scientific risk management systems. The growing number of market participants, the growth in volume of securities transactions, the reduction in transaction costs, the significant improvements in efficiency, transparency and safety, and the level of compliance with international standards have earned for the Indian securities market a new respect in the world.

Market Participants

In every economic system, some units, individuals or institutions, are surplus-generating, who are called savers, while others are deficit- generating, called spenders. Households are surplus-generators and corporates and Government are deficit generators. Through the platform of securities markets, the savings units place their surplus funds in financial claims or securities at the disposal of the spending community and in turn get benefits like interest, dividend, capital appreciation, bonus etc. These investors and issuers of financial securities constitute two important elements of the securities markets. The third critical element of markets are the intermediaries who act as conduits between the investors and issuers. Regulatory bodies, which regulate the functioning of the securities markets, constitute another significant element of securities markets. The process of mobilisation of resources is carried out under the supervision and overview of the regulators. The regulators develop fair market practices and regulate the conduct of issuers of securities and the intermediaries. They are also in charge of protecting the interests of the investors. The regulator ensures a high service standard from the intermediaries and supply of quality securities and non-manipulated demand for them in the market.

Thus, the four important elements of securities markets are the investors, the issuers, the intermediaries and regulators.

Investors

An investor is the backbone of the capital markets of any economy as he is the one lending his surplus resources for funding the setting up of or expansion of companies, in return for financial gain.

Households' investment pattern

According to Reserve Bank of India (RBI) data, the household sector accounted for 80.5% of the Gross Domestic Savings in Fixed Income investment instruments during 2007-08, as against 84.5% in 2006-07 (Table 1-5). Mutual funds accounted for the bulk of securities markets investments with an absolute amount of Rs 568,000 million in 2007-08 against Rs. 398,030 million in 2006-07. 2007-08 saw huge investments in mutual funds to take advantage of the booming stock market. Besides, bank deposit rates were very low then.

Table 1-5: Savings of Household Sector in Financial Assets

(In per cent)

Financial Assets	2003-04 P	2004-05 P	2005-06 P	2006-07 P	2007-08#
Currency	**11.2**	**8.5**	**8.7**	**8.6**	**10.9**
Fixed income investments	**81.6**	**85.4**	**83.9**	**84.5**	**80.5**
Deposits	38.8	37	47.4	55.30	56.5
Insurance/Provident/Pension Funds	27.3	28.9	24.2	24.10	25.7
Small Savings	15.5	19.5	12.3	5.1	-1.7
Securities Market	**7.5**	**6.0**	**7.2**	**6.9**	**8.5**
Mutual Funds	1.2	0.4	3.6	5.20	7.7
Government Securities	7.5	4.9	2.4	0.2	-2
Other Securities	-1.2	0.7	1.2	1.50	2.8
Total	**100**	**100**	**100**	**100**	**100**

Source: RBI. Annual Report 2007-08
P: Provisional Figures
Preliminary Estimates

Issuers

Primary Markets

An aggregate of Rs. 5,788,150 million (US $ 144,812 million) were raised by the government and corporate sector during 2007-08 as against Rs. 3,944,540 million (US $ 90,492 million) during the preceding year, an increase of 46.74%. Private placement accounted for 71.75% of the domestic resource mobilization by the corporate sector. (Table 1-6).

Table 1-6: Resource Mobilisation from the Primary Market

Issues	2006-07 (Rs. mn)	2007-08 (Rs. mn)	2006-07 (US $ mn)	2007-08 (US $ mn)
Corporate Securities	**1,942,560**	**3,228,310**	**44,564**	**80,768**
Domestic Issues	1,772,510	2,962,750	40,663	74,124
Public Issues	313,850	837,070	7,200	20,942
Non-Govt. Public Companies	306,030	636,380	7,021	15,921
PSU Bonds	--	--	--	--
Govt. Companies	--	25,160	--	629
Banks & FIs	7,820	175,530	179	4,392
Private Placement	1,458,660	2,125,680	33,463	53,182
Euro Issues	170,050	265,560	3,901	6,644
Government Securities	**2,001,980**	**2,559,840**	**45,928**	**64,044**
Central Government	1,793,730	1,882,050	41,150	47,087
State Governments	208,250	677,790	4,777	16,957
Total	**3,944,540**	**5,788,150**	**90,492**	**144,812**

Source: RBI Annual Report 2007-08

The Indian market is getting integrated with the global market, though in a limited way through Euro Issues, since they were permitted access in 1992. Indian companies have raised about Rs. 265,560 million i.e. US $ 6,644 million during 2007-08 through American Depository Receipts (ADRs)/Global Depository Receipts (GDRs), an increase of 56.17% as compared with Rs.170,050 million (US $ 3901 million) during 2006-07.

Of the total resources mobilized through the primary markets, the share of resources raised by the Government decreased from 51 % in 2006-07 to 42% in 2007-08. While the primary issues of the Central Government increased from Rs. 1,793,730 million in 2006-07 to Rs. 1,882,050 million in 2007-08, the resources raised by State Governments increased by 225% from Rs. 208,250 million in 2006-07 to Rs.677,790 million in 2007-08.

Intermediaries

The term "market intermediary" is usually used to refer to those who are in the business of managing individual portfolios, executing orders, dealing in or distributing securities and providing information relevant to the trading of securities. The market mediators play an important role on the stock exchange market; they put together the demands of the buyers with the offers of the security sellers. A large variety and number of intermediaries provide intermediation services in the Indian securities markets. Table 1-7 presents an overview of market participants in the Indian securities market.

Table 1-7: Market Participants in Securities Market

Market Participants	As on March 31		As on June 30, 2008
	2007	2008	
Securities Appellate Tribunal (SAT)	1	1	1
Regulators*	4	4	4
Depositories	2	2	2
Stock Exchanges			
With Equities Trading	22	19**	19**
With Debt Market Segment	2	2	2
With Derivative Trading	2	2	2
Brokers	9,443	9487	9544
Corporate Brokers	4,076	4190	4226
Sub-brokers	27,894	44,074	48906
FIIs	996	1319	1403
Portfolio Managers	158	205	217
Custodians	15	15	15
Registrars to an issue & Share Transfer Agents	82	76	70
Primary Dealers	17	16	16
Merchant Bankers	152	155	149
Bankers to an Issue	47	50	51
Debenture Trustees	30	28	29
Underwriters	45	35	32
Venture Capital Funds	90	106	116
Foreign Venture Capital Investors	78	97	99
Mutual Funds	40	40	41
Collective Investment Schemes	0	0	0

* DCA, DEA, RBI & SEBI.
** 3 Stock Exchanges, derecognised during 2007-08.
Source: SEBI Bulletin.

The market intermediary has a close relationship with the investor with whose protection the Regulator is primarily tasked. As a consequence a large portion of the regulation of a securities industry is directed at the market intermediary. Regulations address entry criteria, capital and prudential requirements, ongoing supervision and discipline of entrants, and the consequences of default and failure.

One of the issue concerning brokers is the need to encourage then to corporatize. Presently, 44% of the brokers are corporates. Corporatisation of their business would help them compete with global players in capital markets at home and abroad. Corporatisation brings better standards of governance and better transparency hence increasing the confidence level of customers.

Regulators

The absence of conditions of perfect competition in the securities market makes the role of regulator extremely important. The regulator ensures that the market participants behave in a desired manner so that securities market continue to be a major source of finance for corporate and government and the interest of investors are protected.

The responsibility for regulating the securities market is shared by Department of Economic Affairs (DEA), Ministry of Company Affairs (MCA), Reserve Bank of India (RBI) and SEBI. The activities of these agencies are coordinated by a High Level Committee on Capital Markets. The orders of SEBI under the securities laws are appellable before a Securities Appellate Tribunal.

Most of the powers under the SCRA are exercisable by DEA while a few others by SEBI. The powers of the DEA under the SCRA are also con-currently exercised by SEBI. The powers in respect of the contracts for sale and purchase of securities, gold related securities, money market securities and securities derived from these securities and ready forward contracts in debt securities are exercised concurrently by RBI. The SEBI Act and the Depositories Act are mostly administered by SEBI. The rules under the securities laws are framed by government and regulations by SEBI. All these are administered by SEBI. The powers under the Companies Act relating to issue and transfer of securities and non-payment of dividend are administered by SEBI in case of listed public companies and public companies proposing to get their securities listed. The SROs ensure compliance with their own rules as well as with the rules relevant for them under the securities laws.

Regulatory framework

At present, the five main Acts governing the securities markets are (a) the SEBI Act, 1992; (b) the Companies Act, 1956, which sets out the code of conduct for the corporate sector in relation to issuance, allotment and transfer of securities, and disclosures to be made in public issues; (c) the Securities Contracts (Regulation) Act, 1956, which provides for regulation of transactions in securities through control over stock exchanges (d) the Depositories Act, 1996 which provides for electronic maintenance and transfer of ownership of demat shares and (e) Prevention of Money Laundering Act, 2002.

Legislations

Capital Issues (Control) Act, 1947

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

SEBI Act, 1992

The SEBI Act, 1992 was enacted to empower SEBI with statutory powers for (a) protecting the interests of investors in securities, (b) promoting the development of the securities market, and (c) regulating the securities market. Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all intermediaries and persons associated with securities market. It can conduct enquiries, audits and inspection of all concerned and adjudicate offences under the Act. It has power to register and regulate all market intermediaries and also to penalise them in case of violations of the provisions of the Act, Rules and Regulations made there under. SEBI has full autonomy and authority to regulate and develop an orderly securities market.

Securities Contracts (Regulation) Act, 1956

It provides for direct and indirect control of virtually all aspects of securities trading and the running of stock exchanges and aims to prevent undesirable transactions in securities. It gives Central Government regulatory jurisdiction over (a) stock exchanges through a process of recognition and continued supervision, (b) contracts in securities, and (c) listing of securities on stock exchanges. As a condition of recognition, a stock exchange complies with conditions prescribed by Central Government. Organised trading activity in securities takes place on a specified recognised stock exchange.

The stock exchanges determine their own listing regulations which have to conform to the minimum listing criteria set out in the Rules.

Depositories Act, 1996

The Depositories Act, 1996 provides for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed, accuracy and security by (a) making securities of public limited companies freely transferable subject to certain exceptions; (b) 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.

Companies Act, 1956

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

Prevention of Money Laundering Act, 2002

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

Rules and Regulations

The Government have framed rules under the SCRA, SEBI Act and the Depositories Act. SEBI has framed regulations under the SEBI Act and the Depositories Act for registration and regulation of all market intermediaries, and for prevention of unfair trade practices, insider trading, etc. Under these Acts, Government and SEBI issue notifications, guidelines, and circulars which need to be complied with by market participants. The SROs like stock exchanges have also laid down their rules and regulations.

Having discussed the various elements of securities market above the following section presents an overview of 'Secondary Market' segment of the Indian Securities Markets.

Secondary Market

Corporate Securities

Exchanges in the country, offer screen based trading system. There were 9,487 trading members registered with SEBI as at end March 2008 (Table 1-8).

The market capitalization has grown over the period indicating more companies using the trading platform of the stock exchange. The All-India market capitalization was around Rs. 51,497,010 million (US $ 1,288,392 million) at the end of March 2008. The market capitalization ratio is defined as market capitalisation of stocks divided by GDP. It is used as a measure to denote the importance of equity markets relative to the GDP. It is of economic significance since market is positively correlated with the ability to mobilize capital and diversify risk. The All- India market capitalisation ratio

Table 1-8: Secondary Market - Selected Indicators

At the End of Financial Year	Capital Market Segment of Stock Exchanges									Non-Repo Government Sec Turnover				Derivatives	
	No. of Brokers	Nifty 50	Sensex	Market Capitalisation (Rs. mn)	Market Capitalisation (US $ mn)	Market Capitalisation Ratio (%)	Turnover (Rs.mn)	Turnover (US $ mn)	Turnover Ratio (%)	On WDM Segment of NSE (Rs.mn)	On SGL (Rs.mn)	On WDM Segment of NSE (US $ mn)	On SGL (US $.mn)	Turnover (Rs. mn)	Turnover (US $ mn)
1995-96	8,476	985.30	3366.61	5,722,570	–	47.00	2,273,680	–	39.70	92,433	295,300	–	–	–	–
1996-97	8,867	968.85	3360.89	4,883,320	–	34.60	6,461,160	–	132.30	381,023	939,210	–	–	–	–
1997-98	9,005	1116.65	3892.75	5,898,160	–	37.70	9,086,810	–	154.10	975,152	1,610,900	–	–	–	–
1998-99	9,069	1078.05	3739.96	5,740,640	135,295	34.10	10,233,820	241,191	178.30	904,158	1,875,310	21,309	44,197	–	–
1999-00	9,192	1528.45	5001.28	11,926,300	273,410	84.70	20,670,310	473,867	173.30	2,915,915	4,564,910	66,847	104,651	–	–
2000-01	9,782	1148.20	3604.38	7,688,630	164,851	54.50	28,809,900	617,708	374.71	4,124,958	5,721,456	88,442	122,673	40,180	861
2001-02	9,687	1129.55	3469.35	7,492,480	153,534	36.36	8,958,180	183,569	119.56	9,269,955	12,119,658	189,958	248,354	1,038,480	21,280
2002-03	9,519	978.20	3048.72	6,319,212	133,036	28.49	9,689,098	203,981	153.33	10,305,497	13,923,834	216,958	293,133	4,423,333	93,123
2003-04	9,368	1771.90	5590.60	13,187,953	303,940	52.25	16,209,326	373,573	122.91	12,741,190	17,013,632	293,643	392,110	21,422,690	493,724
2004-05	9,128	2035.65	6492.82	16,984,280	388,212	54.41	16,668,960	381,005	98.14	8,493,250	12,608,667	194,131	288,198	25,641,269	586,086
2005-06	9,335	3402.55	11280.00	30,221,900	677,469	85.58	23,901,030	535,777	79.09	4,508,016	7,080,147	101,054	158,712	48,242,590	1,081,430
2006-07	9,443	3821.55	13,072.10	35,488,081	814,134	86.02	29,014,715	665,628	81.76	2,053,237	3,982,988	47,103	91,374	74,152,780	1,701,142
2007-08	9,487	4734.50	15644.44	51,497,010	1,288,392	109.30	51,308,160	1,283,667	99.63	2,604,088	5,003,047	65,151	125,170	133,327,869	3,335,698
April-June 2008	9,544	4040.55	13461.60	43,790,223	1,004,593.32	92.70	8,135,781	189,424	18.58	510,462	1,364,953	11,885	31,780	26,484,033	616,625

Note: Turnover figures for the respective year.

increased to 109.26 % in 2007-08 from 86.02 % in 2006-07. NSE Market Capitalisation ratio was 103.08 % during 2007-08 while BSE Market Capitalisation ratio was 109.01 %.

The trading volumes on stock exchanges have been witnessing phenomenal growth over the past years. The trading volume, which peaked at Rs.28,809,900 million (US $ 617,708 million) in 2000-01, posted a substantial fall of 68.91 % to Rs.8,958,180 million (US $ 183,569 million) in 2001-02. However, from 2002-03 onwards the trading volumes picked up. It stood at Rs.9,689,098 million (US $ 203,981 million) in 2002-03 and further witnessed a year-on-year increase of 67.29 % in 2003-04 standing at Rs.16,209,326 million (US $ 373,573 million). The upsurge continued and in 2006-07, the turnover showed an increase of 21.40 % to Rs.29,014,715 million (US $ 665,628 million) from Rs.23,901,030 million (US $ 535,777 million) in 2005-06. (Table 1-8)

During 2007-08, the trading volumes on the CM segment of Exchanges increased significantly by 76.83 % to Rs.51,308,160 million (US $ 1,283,667 million).

The relative importance of various stock exchanges in the market has undergone dramatic changes over a decade. The increase in turnover took place mostly at the big stock exchanges. The NSE yet again registered as the market leader with 90.27 % of total turnover (volumes on all segment) in 2007-08. Top 2 stock exchanges accounted for 99.99 % of turnover, while the rest 19 stock exchanges had negligible volumes during 2007-08 (Table 1-9).

Table 1-9: Growth and Distribution of Turnover on Stock Exchanges

	Stock Exchanges	2001-02 (Rs. mn)	2002-03 (Rs. mn)	2003-04 (Rs. mn)	2004-05 (Rs. mn)	2005-06 (Rs. mn)	2006-07 (Rs. mn)	2007-08 (Rs.mn)	2007-08 (US $ mn)
1	NSE	15,622,830	21,265,445	45,462,793	45,744,186	68,693,315	95,206,640	169,238,329	4,234,134
2	BSE	3,093,156	3,165,516	5,146,730	5,357,913	8,160,830	10,167,917	18,233,239	456,173
3	Calcutta	270,747	65,399	19,275	27,150	28,000	6,940	4,460	112
4	Delhi	58,280	111	34	0	0	0	0	0
5	Ahmedabad	148,435	154,586	45,445	80	0	0	0	0
6	Uttar Pradesh	252,373	147,634	117,510	53,430	14,860	7,990	4,750	119
7	Ludhiana	8,566	0	0	0	0	0	0	0
8	Pune	11,710	18	0	3	0	0	0	0
9	Bangalore	703	0	1	0	0	0	0	0
10	Hyderabad*	413	46	20	140	890	920	0	0
11	ICSE/ISE	554	648	1	0	0	0	0	0
12	Cochin	0	0	0	0	0	0	0	0
13	OTCEI	38	1	158		0.1	0	0	0
14	Madras	241	0	1,009	270	50	12	0	0
15	Madhya Pradesh	235	0	0	0	0	0	0	0
16	Magadh*	0	5	1	0	910	0	0	0
17	Vadodara	101	25	1	0	0	0	0	0
18	Gauhati	1	1	0	0	0	0	0	0
19	Bhubaneshwar	0	0	0	0	0	0	0	0
20	Coimbatore	266	0	0	0	0	0	0	0
21	SKSE*	0	0	0	0	0	0	0	0
22	Mangabre*	0	0	0	0	0	0	0	0
23	Jaipur	0	0	0	0	0	0	0	0
	Total	**19,468,650**	**24,799,434**	**50,792,977**	**51,183,172**	**76,898,855**	**105,390,419**	**187,480,778**	**4,690,537**

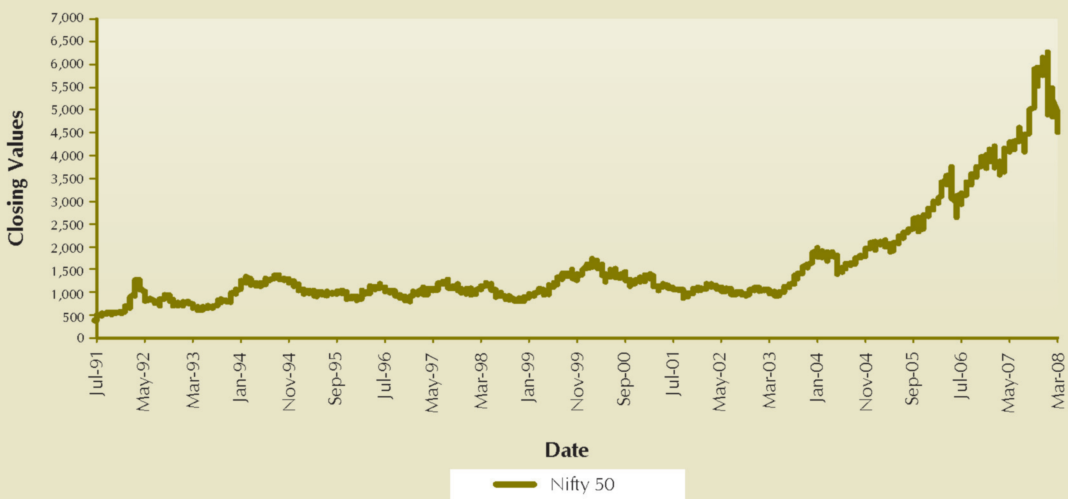
* 4 Stock Exchanges derecognised.

Note: Turnover means total value of transactions of securities in all market segments of an Exchange. For NSE & BSE all three segments *viz.*, CM, F&O and WDM are included.

The movement of the Nifty 50, the most widely used indicator of the market, is presented in Chart 1-1. The index movement has been responding to changes in the government's economic policies, the increase in FII inflows, etc.

However, the year 2007-08 witnessed a favourable movement in the Nifty 50 Index, wherein it registered its all time high of 6357.10 in January 08, 2008. The point-to-point return of Nifty 50 was 23.89 % for 2007-08.

Chart 1-1: Movement of Nifty 50



Shareholding Pattern

In the interest of transparency, the issuers are required to disclose shareholding pattern on a quarterly basis. Table 1-10 presents the sectorwise shareholding pattern of the companies listed at NSE at end June 2008. It is observed that on an average the promoters held 57.45% of the total shares while non-promoters holding was 40.72%. Individual held 12.86% and the institutional holding (FIIs, MFs, VCFs-Indian and Foreign) accounted for 13.19%.

Government Securities

The trading in non-repo government securities has been declining considerably since 2004-05. The aggregate trading volumes in central and state government dated securities on SGL declined from Rs. 3,982,988 million (US $ 91,374 million) in 2006-07 to Rs.5,003,047million (US $ 125,170 million) in 2007-08 (Table 1-8).

Derivatives Market

The number of instruments available in derivatives has been expanded. To begin with, SEBI only approved trading in index futures contracts based on Nifty 50 Index and BSE-30 (Sensex) Index. This was followed by approval for trading in options based on these indices and options on individual securities and also futures on interest rates derivative instruments (*91-day Notional T-bills and 10-year Notional 6% coupon bearing as well as zero coupon bonds).* On NSE, there are futures and options based on benchmark index Nifty 50, CNX IT Index, Bank Nifty Index, CNX Nifty Junior, CNX 100, Nifty Midcap 50 and S&P CNX Defty as well as futures and options on 263 single stocks as of December 2008. On BSE, Futures and Options are based on BSE 30 Sensex, BSE Teck, BSE Bankex, BSE Oil & Gas, BSE Metal and BSE FMCG, as well as futures and options on 119 single stocks. The mini derivative (futures and options) contracts on Nifty 50 and Sensex were introduced for trading on January 1, 2008 while the long term Options on Nifty 50 were launched on March 3, 2008. The futures and options on Defty were introduced on December 10, 2008.

The total exchange traded derivatives witnessed a value of Rs.133,327,869 million (US $ 3,335,698 million) during 2007-08 as against Rs. 74,152,780 million (US $ 1,701,142 million) during the preceding year. NSE proved itself as the

Table 1-10: Shareholding Pattern at the end of June 2008 of Companies Listed on NSE

(in per cent)

Sectors	Promoters		Non-Promoters								Shares held by Custodians and against which Depository Receipts have been issued
			Institutional					Non-Institutional			
	Indian Promoters	Foreign Promoters	Financial Institutions/ Banks Central Government/ State Government(s)/ Insurance Companies	Foreign Institutional Investors	Mutual Funds/	Venture Capital Funds including Foreign Venture Capital investors	Others	Bodies Corporate	Individuals	Others	
Banks	47.37	1.07	7.06	17.10	3.67	0.02	0.57	5.02	12.97	0.92	4.23
Engineering	30.03	2.13	7.96	9.24	10.85	0.10	1.10	9.28	20.97	7.21	1.13
Finance	40.97	1.88	9.53	15.83	2.81	0.01	2.00	6.89	15.29	4.01	0.78
FMCG	17.08	15.83	13.91	13.46	7.98	0.01	0.00	3.85	13.46	14.10	0.32
Information Technology	40.89	6.14	2.65	16.30	2.57	0.51	0.28	6.44	15.50	5.40	3.32
Infrastructure	75.15	0.96	2.64	8.16	2.14	0.04	0.00	3.33	6.19	1.10	0.29
Manufacturing	48.47	8.37	6.27	8.51	3.40	0.07	0.25	6.13	14.48	2.42	1.63
Media & Entertainment	44.00	5.58	2.36	11.08	5.55	0.33	0.00	8.20	18.47	3.11	1.33
Petrochemicals	57.29	7.62	4.16	5.38	1.89	0.00	0.28	5.53	11.44	2.14	4.26
Pharmaceuticals	42.35	6.84	5.27	10.30	3.26	0.20	0.02	6.89	19.99	3.69	1.20
Services	44.95	7.89	5.63	10.87	4.40	0.25	0.17	7.58	13.82	2.02	2.42
Telecommunication	55.44	3.66	4.38	9.18	1.93	0.02	0.00	3.85	11.01	9.58	0.95
Miscellaneous	44.57	2.77	2.43	9.94	3.24	0.00	0.13	10.13	22.26	3.64	0.89
Number of shares	93,993,234,663	10,598,328,908	9,880,174,444	18,089,323,485	5,780,287,250	147,145,970	496,684,792	10,041,372,744	23,418,210,098	6,279,819,946	3,338,381,370
% to total number of shares	51.63	5.82	5.43	9.94	3.17	0.08	0.27	5.52	12.86	3.45	1.83

Source: NSE

market leader contributing 98.18 % of the total turnover in 2007-08 in India. Not only in Indian scenario, but also in the global market NSE has created a niche for itself in terms of derivatives trading in various instruments (discussed in detail with statistics in chapter 7 on derivatives of this publication).

Recent initiatives and developments in Indian Securities Markets

Corporatisation and Demutualization of Stock Exchanges

To improve the governance mechanism of stock exchanges and to protect the interest of investors in securities market, corporatisation and demutualization of stock exchanges was mandated through an amendment to the Securities law in 2004. The benefits of demutualisation, other than correcting the conflicts of interests situation in governance of stock exchanges, include streamlining of business operations consistent with market needs, streamlined decision making by a professional management and capacity to raise capital which can be used to improve technology, seek innovations or acquisition of other markets.

Out of the 23 stock exchanges, 18 have since been corporatized and demutualised in 2007-08. One stock exchange, i.e. Hyderabad Stock Exchange, failed to demutualise by the due date and has therefore been de-recognized. Saurashtra Kutch Stock exchange, Mangalore Stock exchange and Magadh Stock exchange have been de-recognized for various irregularities/non compliances. As regards Coimbatore Stock Exchange which had sought voluntary withdrawal of recognition, the matter is sub-judice.

Corporate Bond Markets

The Government and regulators have well recognized that a well developed corporate bond market is essential for financial system efficiency, stability and overall economic growth. A well functioning bond market provides for financial diversification and facilitates necessary financing not only for AAA-rated corporates but also less well known, sub-investment grade corporates and infrastructure developers. Considering that this market is not well developed in the country, the Government had set up a High-Level Expert Committee on Corporate Bonds and Securitisation (Patil Committee) to look in to legal, regulatory, tax and market design issues in the development of the corporate bond market. The Committee submitted its report to the Government in December, 2005. The Budget of 2006-07 announced that the Government has accepted the recommendations of the Report and that steps would be taken to create a single, unified exchange-traded market for corporate bonds. The measures already taken in respect of implementation of the recommendations of the Patil Committee include:

(a) Amendment to the Securities Contracts (Regulation) Act, 1956 to include securitized instruments within the ambit of 'securities'. (b) Amendment to the RBI Act to empower RBI to develop and regulate market for Repos in corporate bonds; (c) Enhancement of limit of FII Investment in corporate debt from US$ 0.5 bn to US$ 1.5 bn and further to US $ 3 bn.;(d) operationalising of trade reporting and trading platforms for corporate bonds at the major exchanges; (e) Waiver of TDS from corporate bonds traded on exchanges.

Foreign investment in stock exchanges

Foreign Investment upto 49% has been allowed in December 2006 in infrastructure companies in the securities markets, viz. stock exchanges, depositories and clearing corporations, with separate Foreign Direct Investment (FDI) cap of 26% and Foreign Institutional Investment (FII) cap of 23%.

National Institute of Securities Markets (NISM)

In the Budget of 2005-06, SEBI was authorized to set up NISM for teaching and training intermediaries in the securities markets and promoting research. NISM has since been set up and is functional. It has been set up as a public trust and is located in Mumbai, India.

The SEBI, by establishing NISM, has envisioned a large and far reaching vision to articulate the desire expressed by the Indian government to promote securities market education and research. This vision presents an all encompassing educational initiative relevant for the securities markets of emerging nations. This is the first unified attempt of such magnitude and comprehension in the securities markets anywhere. It is a unique experiment in development of new branch of knowledge relevant for emerging securities markets. Towards accomplishing the desire of Government of India and vision of SEBI, NISM has launched an effort to deliver financial and securities education at various levels and across various segments in India and abroad.

Securities Contracts (Regulation) Amendment Act, 2007

It was recognized that in India, the market for securitised debt remains underdeveloped. Despite two major initiatives, namely, the amendment of the National Housing Bank Act, 1987 (NHB Act) in 2000; and enactment of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act), the market did not pick up because the facility of trading on stock exchanges was not available. This was, in part due to the fact that securitisation transactions under the NHB Act were not covered under the definition of 'securities' in the SCR Act. As a result, buyers of securitised financial instruments have few exit options.

Thus, the Securities Contracts Regulation Act, 1956 was amended in 2007 to include securitised instruments under the definition of 'securities' and provide for disclosure based regulation for issue of the securitized instruments and the procedure thereof. This has been done keeping in view that there is considerable potential in the securities market for the certificates or instruments under securitisation transactions. The development of the securitised debt market is critical for meeting the huge requirements of the infrastructure sector, particularly housing sector, in the country. Replication of the securities markets framework for these instruments would facilitate trading on stock exchanges and in turn help development of the market in terms of depth and liquidity.

PAN as the sole identification number

The need for a Unique Identification Number (UIN) for market participants in the securities markets was felt in the interest of enforcement action. Presently, a person has variety of identification numbers such as Permanent Account Number (PAN) from CBDT, Depository Account Numbers from respective depositories, Bank Account Numbers from respective banks, MAPIN from SEBI, Unique Client Code from Exchanges, Director Identification Number from MCA, etc. and there is no arrangement to link these numbers.

It was felt that the PAN issued by the CBDT could be a UIN for market participants. A PAN could identify all participants and the account managers (Depositories, Banks, Exchanges, Insurance Companies, Pension Fund Managers, Post Offices, and Intermediaries etc.) must use these numbers. Following a budget announcement to this effect in the budget of 2007-08, SEBI has declared PAN the sole identification number for all transactions in securities market. It is an investor friendly measure as he does not have to maintain different identification numbers for different kinds of transactions/ different segments in financial markets.

In the Budget of 2008-09 it was proposed that the requirement of PAN be extended to all transactions in the financial market subject to suitable threshold exemption limits.

IPO grading

SEBI has made it compulsory for companies coming out with IPOs of equity shares to get their IPOs graded by at least one credit rating agency registered with SEBI from May 1, 2007. This measure is intended to provide the investor with an informed and objective opinion expressed by a professional rating agency after analyzing factors like business and financial prospects, management quality and corporate governance practices etc. The grading would be disclosed in the prospectus, abridged prospectus and in every advertisement for IPOs.

Real Estate Mutual Funds

After careful and detailed deliberations and consultation process, SEBI approved the launch of Real Estate Mutual funds (REMFs) and accordingly made necessary amendments to the SEBI (Mutual Fund) Regulations 1996 in April, 2008.

This product would allow retail investors to invest in real estate in a much more flexible and convenient manner. A REMF has investment objective to invest directly or indirectly in real estate property. Real estate the largest asset class in the world, may serve as a hedge against other asset classes like debt or equity. By including it in ones portfolio, an investor reduces risk and can achieve stable returns. Unlike other asset classes, real estate rarely earns negative returns, and does not suffer high volatility. Over years, the value of real estate usually increases manifold. This also makes it a good hedge against inflation. Real estate is a good long-term investment.

New derivative products

The Mini derivative Futures & Options contract was introduced for trading on S&P CNX Nifty on January 1, 2008 while the long term option contracts on S&P CNX Nifty were introduced for trading on March 3, 2008.

Volatility Index

With rapid changes in volatility in securities market from time to time, a need was felt for an openly available and quoted measure of market volatility in the form of an index to help market participants. On January 15, 2008, Securities and Exchange Board of India recommended Exchange to construct and disseminate the volatility index. Volatility Index is a measure, of the amount by which an underlying Index is expected to fluctuate, in the near term, (calculated as annualised volatility, denoted in percentage e.g. 20%) based on the order book of the underlying index options. On April 08, 2008, NSE launched the Volatility Index, India VIX, based on the Nifty 50 Index Option prices. From the best bid-ask prices of Nifty 50 Options contracts, a volatility figure (%) is calculated which indicates the expected market volatility over the next 30 calendar days. The India VIX is a simple but useful tool in determining the overall volatility of the market

Short selling

There were regulatory restrictions in the Indian markets which enabled only retail investors to short sell. Thus, there was no level playing field between various classes of investors. A need was felt to bridge this gap and provide equal leveraging opportunities for all classes of investors.

After due consultation process the SEBI laid down the broad framework to permit all classes of investors to short sell, in December, 2007. Certain conditions were imposed on the FIIs while undertaking a short selling transaction. These, inter-alia, include that borrowing of equity shares by FIIs would only be for the purpose of delivery into short sale and that the margin / collateral would be maintained by FIIs only in the form of cash. Simultaneously, the scope of the existing securities lending and borrowing scheme was widened into a full-fledged lending and borrowing scheme enabling participation of all classes of investors, including retail investors. This short selling and securities lending and borrowing scheme was operationalised with effect from April 21, 2008.

Investment options for Navaratna and Miniratna Public Sector Enterprises

The Navaratna and Miniratna Public Sector Enterprises have been allowed to invest in public sector mutual funds subject to the condition that they would not invest more than 30% of the available surplus funds in equity mutual funds and the Boards of PSEs would decide the guidelines, procedures and management control systems for such investment in consultation with their administrative Ministries.

Investor Protection and Education Fund (IPEF)

SEBI has set up the Investor Protection and Education Fund (IPEF) with the purpose of investor education and related activities. SEBI has contributed a sum of Rs.10 crore toward the initial corpus of the IPEF from the SEBI General Fund. In addition following amounts will also be credited to the IPEF namely: (i) Grants and donations given to IPEF by the Central Government, State Governments or any institution approved by SEBI for the purpose of the IPEF;(ii) Interest or other income received out of the investments made from the IPEF; and (iii) Such other amount that SEBI may specify in the interests of the investors.

Direct Market Access

During April 2008, Securities & Exchange Board of India (SEBI) allowed the direct market access (DMA) facility to the institutional investors. DMA allows brokers to offer clients direct access to the exchange trading system through the broker's infrastructure without manual intervention by the broker. DMA facility give clients direct control over orders, help in faster execution of orders, reduce the risk of errors from manual order entry and lend greater transparency and liquidity. DMA also leads to lower impact cost for large orders, better audit trails and better use of hedging and arbitrage opportunities through the use of decision support tools/algorithms for trading.

Cross Margining

Many trading members undertake transactions on both the cash and derivative segments of an Exchange. They keep separate deposits with the exchange for taking positions in two different segments. In order to improve the efficiency of the use of the margin capital by market participants SEBI introduced cross margining for institutional investors in May 2008.

In December 2008, SEBI extended the cross margin facility across Cash and F&O segment to all the market participants. The salient features of cross margining are as under :

1. Cross margin is available across Cash and F&O segment and to all categories of market participants.
2. The positions of clients in both the Cash and F&O segments to the extent they offset each other shall be considered for the purpose of cross margining as per the following priority.
   a) Index futures and constituent stock futures 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.
3. In order to extend the cross margin benefit as per 2 (a) and (b) above, the basket of constituent stock futures/ stock positions shall be a complete replica of the index futures.
4. The positions in F&O segment for stock futures and index futures shall be in the same expiry month to be eligible for cross margin benefit.
5. Positions in option contracts shall not be considered for cross margining benefit.
6. The Computation of cross margin shall be at client level on an on-line real time basis.
7. For institutional investors the positions in Cash segment shall be considered only after confirmation by the custodian on T+1 basis and on confirmation by the clearing member in F&O segment.
8. The positions in the Cash and F&O segment shall be considered for cross margining only till the time the margins are levied on such positions.
9. The positions which are eligible for offset, shall be subject to spread margins. The spread margins shall be 25% of the applicable upfront margins on the offsetting positions

ASBA

To make the existing public issue process more efficient, SEBI introduced a supplementary process of applying in public issues, viz, the 'Applications Supported by Blocked Amount (ASBA) in July 2008. ASBA is an application containing an authorization to block the application money in the bank account, for subscribing to an issue. If an investor is applying through ASBA, his application money is debited from the bank account only if his/her application is selected for allotment after the basis of allotment is finalized, or the issue is withdrawn/failed .In case of rights issue his application money is debited from the bank account after the receipt of instruction from the registrars. The ASBA process is available in all public issues made through the book building route. In September 2008, the ASBA facility was extended to Rights Issue.

Initiatives in the pipeline

Equity Finance for the Small and Medium Enterprises (SMEs)

SMEs in India have traditionally relied on debt financing from banks and non-bank financial institutions. In order to develop the equity market for SMEs, SEBI has decided to the creation of a separate exchange for the SMEs. It has decided that, to begin with there should be a single exchange for the SME sector for around 2-3 years to enable successful development of the market for SMEs.

In recognition of the need for making finance available to needy small and medium enterprises, the SEBI Board has decided to encourage promotion of dedicated exchanges and/or dedicated platforms of the exchanges for listing and trading of securities issued by SMEs. Multiple exchanges or platforms would provide the necessary competition in this space. SEBI will come out with a suitable framework for recognition and supervision of such exchanges/platforms. The enterprises with a post issue paid up capital of upto Rs. 25 crore would be listed on such exchanges / platforms and trading lot would be Rs. 1 lakh.

Framework for delisting of securities

The Securities Laws (Amendment) Act enacted in 2005 allowed delisting of securities necessitating the creation of a delisting framework. In order to provide statutory backing to delisting framework, Rules and Regulations are being finalized by the regualators. A simplified procedure for delisting for small companies is being put in place.

Research in Securities Market

In order to deepen the understanding and to assist in policy-making, SEBI has been promoting high quality research in the Indian capital market. Its monthly bulletin carries research articles pertaining to issues in the capital market. In order to improve market efficiency further and to set international benchmarks in the securities industry, NSE also administers a scheme called the NSE Research Initiative. The objective of this initiative is to foster research to better design market microstructure. The NSE Research Initiative has so far come out with 44 Working Papers.

Testing and Certification

With a view to improve the quality of intermediation, a system of testing and certification has been used in some of the developed and developing markets. This ensures that a person dealing with financial products has a minimum knowledge about them, the markets and regulations. As a result, not only the intermediaries benefit due to the improvement in the quality of their services, but also the career prospectus of the certified professionals is better. Thus, the confidence of the investors in the market increases.

NSE has evolved a testing and certification mechanism known as the National Stock Exchange's Certification in Financial Markets (NCFM). It is an on-line fully automated nation-wide testing and certification system where the entire process from generation of question paper, testing, assessing, scores reporting and certifying is fully automated. It tests practical knowledge and skills, that are required to operate in financial markets. A certificate is awarded to those personnel who qualify the tests, which indicates that they have a proper understanding of the market and skills to service different constituents of the market. It offers 17 securities market related modules.

Role of NSE in Indian Securities Market

In Union of India Vs. Allied International Products Ltd. [(1971) 41 Comp Cas 127 SC]: (1970) 3 SCC 5941), the Supreme Court of India has enunciated the role of the Stock Exchanges in these words:

"A Stock Exchange fulfills a vital function in the economic development of a nation: its main function is to 'liquify' capital by enabling a person who has invested money in, say a factory or railway, to convert it into cash by disposing off his shares in the enterprise to someone else. Investment in Joint stock companies is attractive to the public, because the value of the shares is announced day after day in the stock exchanges, and shares quoted on the exchanges are capable

of almost immediate conversion into money. In modern days a company stands little chance of inducing the public to subscribe to its capital, unless its shares are quoted in an approved stock exchange. All public companies are anxious to obtain permission from reputed exchanges for securing quotations of their shares and the management of a company is anxious to inform the investing public that the shares of the company will be quoted on the stock exchange".

The stock exchange is really an essential pillar of the private sector corporate economy. It discharges three essential functions:

- First, the stock exchange provides a market place for purchase and sale of securities viz. shares, bonds, debentures etc. It, therefore, ensures the free transferability of securities which is the essential basis for the joint stock enterprise system.
- Secondly, the stock exchange provides the linkage between the savings in the household sector and the investment in the corporate economy. It mobilizes savings, channelises them as securities into these enterprises which are favoured by the investors on the basis of such criteria as future growth prospects, good returns and appreciation of capital.
- Thirdly, by providing a market quotation of the prices of shares and bonds- a sort of collective judgment simultaneously reached by many buyers and sellers in the market- the stock exchange serves the role of a barometer, not only of the state of health of individual companies, but also of the nation's economy as a whole.

National Stock Exchange of India (NSE) was given recognition as a stock exchange in April 1993. NSE was set up with the objectives of (a) establishing a nationwide trading facility for all types of securities, (b) ensuring equal access to all investors all over the country through an appropriate communication network, (c) providing a fair, efficient and transparent securities market using electronic trading system, (d) enabling shorter settlement cycles and book entry settlements and (e) meeting the international benchmarks and standards. Within a short span of time, above objectives have been realized and the Exchange has played a leading role as a change agent in transforming the Indian Capital Markets to its present form.

NSE has set up infrastructure that serves as a role model for the securities industry in terms of trading systems, clearing and settlement practices and procedures. The standards set by NSE in terms of market practices, products, technology and service standards have become industry benchmarks and are being replicated by other market participants. It provides screen-based automated trading system with a high degree of transparency and equal access to investors irrespective of geographical location. The high level of information dissemination through on-line system has helped in integrating retail investors on a nation-wide basis. The Exchange currently operates four market segments, namely Capital Market Segment, Wholesale Debt Market Segment, Futures an Options segment and the Currency Derivatives Segment.

NSE has been playing the role of a catalytic agent in reforming the market in terms of microstructure and market practices. Right from its inception, the exchange has adopted the purest form of demutualised set up whereby the ownership, management and trading rights are in the hands of three different sets of people. This has completely eliminated any conflict of interest and helped NSE to aggressively pursue policies and practices within a public interest framework. It has helped in shifting the trading platform from the trading hall in the premises of the exchange to the computer terminals at the premises of the trading members located country-wide and subsequently to the personal computers in the homes of investors. Settlement risks have been eliminated with NSE's innovative endeavors in the area of clearing and settlement viz., reduction of settlement cycle, professionalisation of the trading members, fine-tuned risk management system, dematerialisation and electronic transfer of securities and establishment of clearing corporation. As a consequence, the market today uses the state-of-art information technology to provide an efficient and transparent trading, clearing and settlement mechanism.

NSE provides a trading platform for of all types of securities-equity and debt, corporate government and derivatives. On its recognition as a stock exchange under the Securities Contracts (Regulation) Act, 1956 in April 1993, it commenced operations in the Wholesale Debt Market (WDM) segment in June 1994, in the Capital Market (CM) segment in November 1994, in Futures & Options (F&O) segment in June 2000 and in Currency Derivative segment (CDS) in August 2008. The Exchange started providing trading in retail debt of Government Securities in January 2003. During the year 2007-08, it accounted for over 90 % of total trading value (debt, derivatives and equity) in the stock exchanges and 69% in equities and more than 98% in derivatives.

The ***Wholesale Debt Market*** segment provides the trading platform for trading of a wide range of debt securities. Its product, which is now disseminated jointly with FIMMDA, the FIMMDA NSE MIBID/MIBOR is used as a benchmark rate for majority of deals struck for Interest Rate Swaps, Forwards Rate Agreements, Floating Rate Debentures and Term Deposits in the country. Its 'Zero Coupon Yield Curve' as well as NSE-VaR for Fixed Income Securities have also become very popular for valuation of sovereign securities across all maturities irrespective of its liquidity and facilitated the pricing of corporate papers and GOI Bond Index.

NSEs ***Capital Market*** segment offers a fully automated screen based trading system, known as the National Exchange for Automated Trading (NEAT) system, which operates on a strict price/time priority. It enables members from across the country to trade simultaneously with enormous ease and efficiency.

NSEs ***Futures & Options*** segment provides trading of a wide range of derivatives like Index Futures, Index Options, Stock Options and Stock Futures.

NSEs **Currency Derivatives** segment provides trading on currency futures contracts on the USD-INR which commenced on August 29, 2008.

Market Segments – Selected Indicators

Segment	At the end of March 2008			2007-08	
	No. of Members	No. of Securities Available	Market Capitalisation (Rs. mn.)	Trading Volume (Rs. mn.)	Market Share (%)
CM	1,069	1,236 [a]	48,581,217	35,510,382	69
WDM	62	3,566	2,123,346	2,823,170	46 [b]
F&O	942	23,466 [c]	–	130,904,779 [d]	98
Total	**1,075 [e]**	**28,268**	**50,704,563**	**169,238,331**	**90 [f]**

a. Excludes suspended securities.

b. Share in SGL

c. 3 Nifty index futures, 3 CNX IT futures, 3 Bank Nifty futures, 3 CNX 100 futures, 3 Nifty Junior Index Futures, 3 Nifty Midcap 50 futures, 3 Mini Nifty Futures, 520 Nifty index options, 681 stock futures, 124 CNX IT options, 296 Bank Nifty options, 146 CNX 100 options, 312 Nifty Junior Index options, 112 Nifty Midcap 50 options, 142 Mini Nifty Options, 21,094 stock options and 18 interest rate futures contracts.

d. includes notional turnover [(strike price + premium) × quantity] in index options and stock options.

e. Do not add up to total because of multiple membership.

f. Share in turnover on all exchanges.

Technology and Application Systems in NSE

Technology has been the backbone of the Exchange. Providing the services to the investing community and the market participants using technology at the cheapest possible cost has been its main thrust. NSE chose to harness technology in creating a new market design. It believes that technology provides the necessary impetus for the organisation to retain its competitive edge and ensure timeliness and satisfaction in customer service. In recognition of the fact that technology will continue to redefine the shape of the securities industry, NSE stresses on innovation and sustained investment in technology to remain ahead of competition. NSE is the first exchange in the world to use satellite communication technology for trading. It uses satellite communication technology to energize participation from about 2,956 VSATs from nearly 245 cities spread all over the country. The list of towns and cities and the state-wise distribution of VSATs as at end March 2008 is presented in (Table 1-11).

Table 1-11: List of Cities and VSATS at the end of March 2008

LIST OF CITIES AND VSATs AT THE END OF MARCH 2008			
STATES	**LIST OF TOWNS AND CITIES**	**TOTAL NO. OF CITIES.**	**TOTAL NO. OF VSATS**
ANDHRA PRADESH	Amalapuram, Anantapur, Bhimavaram, Chirala, Cuddapah, Gudiwada, Guntur, *Hyderabad, Kakinada, Kukatpally, Kurnool, Narsapur, Nellore, Ongole, Palakol, Iduguralla, Rajamundry, Secundarabad, Srikakulam, Tadepalligudem, Tanuku, Tenali, Tirupathi, Vijayawada, Vizag,Vizianagaram, Chilakaluripeta,	27	153
ASSAM	*Guwahati, Silchar	2	5
BIHAR	Begusarai, Bhagalpur, Muzzaffarpur, *Patna,Sitamarhi,	5	18
CHHATTISGARH	Bilaspur, Raipur	2	6
DELHI	*Delhi	1	613
GOA	Panaji, Mapusa,Margao	3	7
GUJARAT	*Ahmedabad, Anand *Baroda, Bharuch, Bhavnagar, Bhuj, Botad, Dhoraji, Dhrangadhra, Gandhidham, Gandhinagar, Jamnagar, Junagadh, Kadi, Mehsana, Nadiad, Navsari, Patan, Petlad, *Rajkot, Savarkundla, Surat, Surendranagar, Unjha, Valsad, Keshod,	26	207
HARYANA	Ambala , Bahadurgarh, Bhiwani, Fatehabad, Faridabad, Gohana, Gurgaon, Hissar, Kaithal, Karnal, Kurukshetra, Mohindergarh, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonepat, Yamuna Nagar,	19	110
HIMACHAL PRADESH	Shimla, Parwanoo	2	2
JAMMU & KASHMIR	Jammu, Srinagar	2	5
JHARKHAND	Bokaro Steel City, Dhanbad, Giridih, Ranchi, Jamshedpur	5	18
KARNATAKA	Arsikere, *Bangalore, Hubli, Kumta, *Mangalore, Manipal, Mysore, Sagar, Shimoga, Udupi	10	81
KERALA	Angamaly, Calicut, Ernakulam, Irinjalakuda, Kannur, *Kochi, Kodungallore, Kollam, Kottayam, Muvattupuzha, Pala, Palakad, Pathanamthitta, Thalassery, Thiruvalla, Thrissur, Thodupuzha, Thiruvananthapuram(Trivandrum)	18	78
MADHYA PRADESH	Bhilai, Bhopal, Gwalior, *Indore, Jabalpur, Neemuch, Ratlam, Satna, Ujjain	9	71
MAHARASHTRA	Ahmednagar, Akola, Amravati, Ichalkaranji, Jalgaon, Kolhapur, Kopargaon, *Mumbai, Nagpur, Nashik, *Pune, Solapur,	12	780
ORISSA	*Bhubaneshwar, Berhampur, Cuttack, Rourkela, Jeypore, Jaraka	6	8
PUNJAB	Amritsar, Bathinda, Chandigarh, Fazilka, **Faridkot, Hoshiyarpur, Jalandhar, Khanna, *Ludhiana, Mansa, Moga, Mohali, Muktasar, Nabha, Pathankot, Patiala, Barnala, Kotkapura, Batala, Kapurthala	20	92
RAJASTHAN	Ajmer, Alwar, Bhilwara, Bikaner, Falna, *Jaipur, Jodhpur, Kota, Udaipur, Sujangarh, Makrana, Nokha, Beawar, Sadarsahar, Sri Ganganagar, Kankroli, Pali	17	124
TAMIL NADU	*Chennai, *Coimbatore, Erode, Karaikal, Karaikudi, Karur, Kumbakonam, Madurai, Nagercoil, Namakkal, Neyveli, Salem, Thanjavur, Tirunelveli, Trichy, Tuticorin, Hosur, Vellore, Gobichettipalayam, Gudiyatham, Dharapuram, Pollachi,	22	176
UNION TERRITORY	Pondicherry,	1	1
UTTAR PRADESH	Agra, Aligarh, Allahabad, Bahraich, Bareilly, Chandausi, Gorakhphur, Ghaziabad, Jhansi, Kurja, *Kanpur, Lucknow, Mathura, Meerut, Moradabad, Muzzafararnagar, Modinagar, Rishikesh, Roorkee, Saharanpur, Varanasi, Bulandshar, Kashipur, Hapur, Sahibabad, Haldwani,	26	125
UTTARANCHAL	Dehradun, Nainital, Rudrapur, Sitarganj	4	10
WEST BENGAL	Asansol, *Kolkata, Siliguri, Durgapur, Paschim Medinipur , Burdwan	6	266
	TOTAL	**245**	**2,956**

*Indicates cities which have a Regional Stock Exchange
Source: NSE

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 1.5 seconds. NSE has been continuously undertaking capacity enhancement measures so as to effectively meet the requirements of increased users and associated trading loads. NSE has also put in place NIBIS (NSEs Internet Based Information System) for on-line real-time dissemination of trading information over the Internet.

As part of its business continuity plan, NSE has established a disaster back-up site at Chennai along with its entire infrastructure, including the satellite earth station and the high-speed optical fibre link with its main site at Mumbai. This site at Chennai is a replica of the production environment at Mumbai. The transaction data is backed up on near real time basis from the main site to the disaster back-up site through the 2 mbps high-speed link to keep both the sites all the time synchronised with each other.

The various application systems that NSE uses for its trading as well clearing and settlement and other operations form the backbone of the Exchange. The application systems used for the day-to-day functioning of the Exchange can be divided into (a) Front end applications and (b) Back office applications.

In the front office, there are 6 applications:

(i) ***NEAT – CM*** system takes care of trading of securities in the Capital Market segment that includes equities, debentures/notes as well as retail Gilts. The NEAT – CM application has a split architecture wherein the split is on the securities and users. The application runs on two Stratus systems with Open Strata Link (OSL). The application has been benchmarked to support 15,000 users and handle more than 3 million trades daily. This application also provides data feed for processing to some other systems like Index, OPMS through TCP/IP. This is a direct interface with the trading members of the CM segment of the Exchange for entering the orders into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member.

(ii) ***NEAT – WDM*** system takes care of trading of securities in the Wholesale Debt Market (WDM) segment that includes Gilts, Corporate Bonds, CPs, T-Bills, etc. This is a direct interface with the trading members of the WDM segment of the Exchange for entering the orders/trades into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member.

(iii) ***NEAT – F&O*** system takes care of trading of securities in the Futures and Options (F&O) segment that includes Futures on Index as well as individual stocks and Options on Index as well as individual stocks. This is a direct interface with the trading members of the F&O segment of the Exchange for entering the orders into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member.

(iv) ***NEAT – IPO*** system is an interface to help the initial public offering of companies which are issuing the stocks to raise capital from the market. This is a direct interface with the trading members of the CM segment who are registered for undertaking order entry on behalf of their clients for IPOs. NSE uses the NEAT IPO system that allows bidding in several issues concurrently. There is a two way communication between the NSE main system and the front end terminal of the trading member.

(v) ***NEAT – MF*** system is an interface with the trading members of the CM segment for order collection of designated Mutual Funds units

(vi) ***NEAT – CD*** system is trading system for currency derivatives. Currently currency futures are trading in the segment.

The exchange also provides a facility to its members to use their own front end software through the CTCL (computer to computer link) facility. The member can either develop his own software or use products developed by CTCL vendors.

In the back office, the following important application systems are operative:

(i) **NCSS** (Nationwide Clearing and Settlement System) is the clearing and settlement system of the NSCCL for the trades executed in the CM segment of the Exchange. The system has 3 important interfaces – OLTL (Online Trade loading) that takes each and every trade executed on real time basis and allocates the same to the clearing members, Depository Interface that connects the depositories for settlement of securities and Clearing Bank Interface that connects the 13 clearing banks for settlement of funds. It also interfaces with the clearing members for all required reports. Through collateral management system it keeps an account of all available collaterals on behalf of all trading/clearing members and integrates the same with the position monitoring of the trading/clearing members. The system also generates base capital adequacy reports.

(ii) **FOCASS** is the clearing and settlement system of the NSCCL for the trades executed in the F&O segment of the Exchange. It interfaces with the clearing members for all required reports. Through collateral management system it keeps an account of all available collaterals on behalf of all trading/clearing members and integrates the same with the position monitoring of the trading/clearing members. The system also generates base capital adequacy reports.

(iii) **CDCSS** is the clearing and settlement system for trades executed in the currency derivative segment. Through collateral management system it keep an account of all available collateral on behalf of all trading / clearing members and integrates the same with the position monitoring of the trading / cleaning members. The System also generate base capital adequacy report.

(iv) **Surveillance system** offers the users a facility to comprehensively monitor the trading activity and analyse the trade data online and offline.

(v) **OPMS** – the online position monitoring system that keeps track of all trades executed for a trading member vis-à-vis its capital adequacy.

(vi) **PRISM** is the parallel risk management system for F&O trades using Standard Portfolio Analysis (SPAN). It is a system for comprehensive monitoring and load balancing of an array of parallel processors that provides complete fault tolerance. It provides real time information on initial margin value, mark to market profit or loss, collateral amounts, contract-wise latest prices, contract-wise open interest and limits. The system also tracks online real time client level portfolio base upfront margining and monitoring.

(vii) **PRISM-CD** is the risk management system of the currency derivatives segment. It is similar in features to the PRISM of F&O segment.

(viii) **Data warehousing** that is the central repository of all data in CM as well as F&O segment of the Exchange.

(ix) **Listing system** that captures the data from the companies which are listed in the Exchange for corporate governance and integrates the same to the trading system for necessary broadcasts for data dissemination process and

(x) **Membership system** that keeps track of all required details of the Trading Members of the Exchange.

The exchange operates and manages a nationwide network. This network of over 2000 VSATs and 3000 Leased Lines is being migrated from X.25 to IP from 2008 onwards and is expected to complete by early 2009. In the new IP network, members have an advantage of a more generic and latest IP protocol and an overall better design, in terms of bandwidth and resilience. Currently the network has over 2000 VSATs, 1500 Leased Lines and 9 POPs (Point of Presence) across the country.

NOW

NSE is also offering internet based trading services to NSE members. This facility is branded as NOW 'NEAT on Web'. NOW provides an internet portal for NSE members and their authorized clients to transact orders and trades to the various market of NSE viz. CM, F&O and Currency. The members can also access NOW through their existing VSAT/ Leased line, in addition to internet links. The various features provided by NOW are:

(a) Comprehensive Administration features

(b) Flexible Risk Management System

(c) High speed dealer terminals

(d) Online trading facility for investors

Policy debates[1]

Regulatory Impact Assessment (RIA)

Regulations for the securities markets are made by the Government and regulators to achieve the goal of a well functioning market area, with minimal conflicts of interests and ensuring investor protection. However, regulations may create unintended and unavoidable barriers for market players and may not be without costs of compliance. Also, these are reviewed from time to time based on changing market practices, changing mindset and ideology of the regulators.

However, when a new regulation in put in place or an existing regulation is reviewed, it may perhaps be desirable to assess and understand the alternatives available, the costs of compliance and enforcement, potential impact of new or changed regulation and whether it would achieve the desired objectives. In essence, some relevant questions on these lines need to be posed and answered to make any new regulation or revised regulation a success both with the regulated and the regulators. RIA is a tool that helps do this. RIA facilitates understanding of the impact of regulatory actions and enables integration of multiple policy objectives, improves transparency and consultation, and enhances accountability of governments and regulators. It not only brings the actions of decision-makers under public scrutiny and highlights how their decisions impact society as a whole, but also mandates greater information sharing by them.

RIA is essentially a document created before a new regulation is introduced or a regulation is modified, systematically assessing the positive and negative impacts of the proposed regulation. It serves as a tool for regulatory reform.

International Practice

RIAs are produced in many countries, although their scope, content, role and influence on policy making vary. For example, The European Commission introduced an impact assessment system in 2002, integrating and replacing previous single-sector type of assessments. In the European Commission perspective, Impact Assessment (IA) is a process aimed at structuring and supporting the development of policies. It identifies and assesses the problem at stake and the objectives pursued. It identifies the main options for achieving the objective and analyses their likely impacts in the economic, environmental and social fields. It outlines advantages and disadvantages of each option and examines possible synergies and trade-offs.

In the United Kingdom, RIAs have been a key tool in helping improve the quality of regulation and reduce unnecessary burdens on business. RIAs have been produced by Central Government departments for many years using guidance produced by the Better Regulation Executive (BRE) in the Cabinet Office. In May 2007 a new system of Impact Assessments (IAs) was introduced and made fully operational in November 2007. The aim of IAs is to help improve policy making by placing a greater emphasis on quantifying benefits and costs in the IA.

RIA has been adopted in most OECD (Organization for Economic Co-operation and Development) countries. RIA has also been undertaken in middle-income developing countries, especially South Korea and Mexico.

On the other hand, despite considerable interest in measuring the effectiveness of development policy and in the design and implementation of regulatory measures, the potential of RIA has neither been explored nor analysed in the developing countries and in their organizations involved in the design and formulation of development policy.

1 The views and approaches reflected in the policy debates are not necessarily of NSE.

Indian context

The High Level Expert Committee on Making Mumbai an International Financial Centre (HPEC on MIFC), which submitted its report to the Government in February 2007, has, among other things, recommended that adopting practice that is now normal in almost all OECD countries, the Government of India should conduct-using independent, impartial interlocutors, including regulators from other IFCs- a periodic RIA of the financial regulatory regime. The RIA would aim to evaluate, using enhanced cost-benefit methodology, how efficient and cost effective extant regulation is in meeting the main regulatory objectives, and to understand what modifications are needed to improve it.

The Government and regulators need to decide on how to go about implementing this recommendation. It may perhaps be better if the impact assessment is integrated into the decision-making process from the stage of formulation of policies, acts and regulations, instead of later in the process simply to comply with externally imposed requirements. Among other things, integration would help the earlier consideration of alternative solutions and help weigh each ones cost and benefits.

Comprehensive regulations for intermediaries

Various intermediaries in the securities markets, including depositories, depository participants, custodians of securities, mutual funds, foreign institutional investors, credit rating agencies etc., are regulated under various regulations of SEBI. As each of these regulations was drafted in order to provide a framework which would enable SEBI to better regulate and monitor intermediaries/entities, the broad framework of such regulations is very similar to one another.

It was observed that every regulation seeking to regulate an intermediary incorporates some basic provisions regarding registration, general obligations, inspection and investigation, default etc. In addition to the above, the general requirements of the Code of Conduct provided in almost all the regulations are also similar in nature. Except for the clauses relating to the specific requirements of, and particular concerns in, each category, the content of all the regulations is common either in language or in spirit, if not in both.

Given the overlap in content and the fact that many requirements and obligations of most intermediaries are common, SEBI now proposes to consolidate the common requirements under these regulations and put in place a comprehensive regulation which will apply to all intermediaries and prescribe the obligations, procedure, limitations etc in so far as the common requirements are concerned. Some of the highlights of the proposed comprehensive regulations are:

- Registration is proposed to be made permanent for all intermediaries subject to compliance with law, updation of relevant disclosures and payment of annual fees.
- As updation is required either promptly or annually, thus more accurate filing of material developments is made available to SEBI and to the public.
- Conducting multiple activities by the same intermediary becomes a simpler process without reducing the regulatory rigours previously imposed.
- Substantial amounts of filing details will enter the public domain, thus allowing investors to assess the appropriateness of using the intermediary.
- The number of investor grievances not addressed beyond a particular period will need to be disclosed, thus incentivising early resolution of complaints by the intermediary.
- The code of conduct rules will be found in one place making compliance with the code easier.
- Consistency across regulation of various intermediaries stand improved.
- Fit and Proper person requirements are rationalized and inserted into these draft regulations.
- The intermediary shall prominently display the registration certificate and the name and contact details of the compliance officer to whom complaint may be made.
- Rationalization of prior approval upon change in status and constitution of the intermediary.

The draft proposal of SEBI on the above lines was put out in public domain in July, 2007, seeking comments and suggestions before the same is finalized.

Principle vs Rule based regulation

India's regulatory framework for securities markets, as for other financial market segments, is rule based, i.e. it consists of a number of subordinate laws codifying detailed rules and regulations for these markets to function in an efficient and effective manner. This approach to regulation has the following strengths. Firstly, it provides greater legal certainty to market players and secondly, it enables the market regulator to operate in a non-discretionary manner. However, it is contested that overly prescriptive rule-based regulations inhibit innovation, requires compliance officers to follow the rule book in letter while ignoring the spirit behind it and induces corrosive political economy where firms seek to influence the evolution of rules in their own favour.

The High Level Expert Committee on Making Mumbai an International Financial Centre (HPEC on MIFC) as well as Committee on Financial Sector Reforms (CFSR) have suggested a move towards "principle-based regulation" (PBR) in the financial markets. PBR, which was first introduced in the UK in 1997, involved less detailed prescription of what is allowed and what is not in every activity or less codification, less rigidity of rule-book interpretation, and a greater reliance on practice and precedent. Under the PBR, the regulator articulates the broad principles on which markets should function. It fosters innovation, encourages greater competition among financial firms and avoids the malpractices which occur when supervisors focus on rule-book compliance.

PBR approach to regulation can be termed as an approach based on getting the regulated to adhere to the spirit of the regulation while a "rules-based" approach is intent on the regulated obeying the letter of the regulation.

The CFSR points to the following benefits of PBR:

- A regulatory system with greater emphasis on principles would avoid the centralized micro-management of the day-to-day operations of enterprises, increasing their efficiency and endowing them with greater nimbleness and agility to deal with a dynamic business landscape.
- It would help promote greater innovation in financial firms operating in India, an increasingly necessary feature for survival and success in the new world economy.
- More focus on principles would also make better use of regulatory capacity. By shifting the onus of providing positive outcomes to the regulated, an emphasis on principles can generate a range of best practices from the regulated that would far outweigh the innovative capacity of the regulator. Its greatest benefits will come when the regulator learns from the regulated instead of imposing its own, more limited, views.
- Self regulation and confession by the regulated, a natural consequence of the shift in responsibility for regulatory outcomes to the regulated, would reduce the strains on regulatory capacity, and allow regulators to permit far more entry and growth in the system. As the relationship between the regulator and the regulated becomes more cooperative, efficiency and stability in the system will improve.

Primary Market

Introduction

Primary market provides opportunity to issuers of securities, Government as well as corporates, to raise resources to meet their requirements of investment and/or discharge some obligation. The issuers create and issue fresh securities in exchange of funds through public issues and/or as private placement. When equity shares are exclusively offered to the existing shareholders it is called 'Rights Issue' and when it is issued to selected mature and sophisticated institutional investors as opposed to general public it is called 'Private Placement Issues'. Issuers may issue the securities at face value, or at a discount/premium and these securities may take a variety of forms such as equity, debt or some hybrid instruments. The issuers may issue securities in domestic market and /or international market through ADR/GDR/ECB route.

Trends

The issuers issue fresh securities through public issues as well as private placements. The resources, raised by them from domestic as well as international markets, are presented in (Table 2-1). During 2007-08, a total of Rs. 5,788,150 million (US $ 144,812 million) were mobilized (increase of 46.74% over the previous year) by both the government and corporate sector from the primary market through public issues and private placement. This chapter presents developments in primary market for corporate securities in India, both equity and debt, while the primary market for government securities is discussed separately in Chapter 6.

Table 2-1: Resource Mobilisation by Government and Corporate Sector

Issues	(Rs. mn.)		(US $ mn.)	
	2006-07	2007-08	2006-07	2007-08
Corporate Securities	**1,942,560**	**3,228,310**	**44,564**	**80,768**
Domestic Issues	1,772,510	2,962,750	40,663	74,124
Public Issues	313,850	837,070	7,200	20,942
Non-Govt. Public Companies	306,030	636,380	7,021	15,921
PSU Bonds	--	--	--	--
Govt. Companies	--	25,160	--	629
Banks & FIs	7,820	175,530	179	4,392
Private Placement	1,458,660	2,125,680	33,463	53,182
Euro Issues	170,050	265,560	3,901	6,644
Government Securities	**2,001,980**	**2,559,840**	**45,928**	**64,044**
Central Government	1,793,730	1,882,050	41,150	47,087
State Governments	208,250	677,790	4,777	16,957
Total	**3,944,540**	**5,788,150**	**90,492**	**144,812**

Source: RBI Annual Report 2007-08
-- : Nil/Negligible

After a long period of subdued activity, there were signs of revival in the public issues in 2003-04 and this state was maintained till the year 2007-08. The resources raised through public issues from the primary market by the corporate sector increased by 166.71%.

The private placement market accounted for 71.75% of the total resources mobilized domestically, whereas the public issues accounted for 28.25%. The resources raised by Indian corporates from the international capital market through the issuance of FCCBs, GDRs and ADRs have increased significantly (56.17%) during 2007-08 raising Rs. 265,560 million (US $ 6,644 million) as against Rs. 170,050 million.(US $ 3,901 million) in the previous year.

Policy Developments

I. Amendments to Clause 41 of Equity Listing Agreement

SEBI amended Clause 41 of the Equity Listing Agreement in July 2007 with a view to rationalize and modify the process and formats for submission of financial results to the stock exchanges. The revised clause also contains other modifications aimed at improving the presentation of the sub-clauses.
The highlights of the revised provision are:

(a) listed companies must furnish either unaudited or audited quarterly and year-to-date financial results to the stock exchange within one month from the end of each quarter.

(b) if the un-audited results are furnished, they must be followed with a limited review report of the financial status of the company. This is with a view to enable investors to know the performance of listed companies as early as possible

(c) simplification of the provision for explanations in variation between items of un-audited and audited quarterly/ year-to-date/annual results. The explanation for variation must be furnished for Net Profit or Loss After Tax and for exceptional/extraordinary items. The percentage of variation for the purpose is revised from '20% or more' to '10% or Rs.10 Lakhs, whichever is higher'. Through the amendment SEBI aims to rationalize and simplify the process and formats for submission of the financial results to the stock exchanges and additionally, will enable investors to know the performance of listed companies at the earliest.

As regards the publication of financial results, companies having subsidiaries who file both stand-alone and consolidated results to the stock exchange will now have an option to publish stand-alone or consolidated results, subject to the condition that a choice once exercised cannot be changed during the year. In case the company changes its option in any subsequent financial year, it would be required to furnish comparative figures for the previous financial year in accordance with the option exercised for the current year.

II. Amendment to Clause 49 of the Listing Agreement

In April 2008, SEBI modified the Clause 49 of the Listing Agreement by including Mandatory and non-mandatory provisions.

Mandatory Provisions

1. If the non-executive Chairman is a promoter or is related to promoters or persons occupying management positions at the board level or at one level below the board, at least one-half of the board of the company should consist of independent directors.

2. Disclosures of relationships between directors inter-se shall be made in specified documents/filings.

3. The gap between resignation/removal of an independent director and appointment of another independent director in his place shall not exceed 180 days. However, this provision would not apply in case a company fulfils the minimum requirement of independent directors in its Board, i.e., one-third or one-half as the case may be, even without filling the vacancy created by such resignation/removal.

4. The minimum age for independent directors shall be 21 years.

Non-mandatory provisions:

The company is required to ensure that the person who is being appointed as an independent director has the requisite qualifications and experience which would be of use to the company and which, in the opinion of the company, would enable him to contribute effectively to the company in his capacity as an independent director.

III. Introduction of Applications Supported by Blocked Amount (ASBA) Process

To make the existing public issue process more efficient, SEBI introduced a supplementary process of applying in public issues, viz, the 'Applications Supported by Blocked Amount (ASBA) in July 2008. The ASBA process is available in all public issues made through the book building route. It would co-exist with the current process, wherein the cheque is used as a mode of payment. The main features of ASBA process are as follows:

Meaning of ASBA: ASBA is an application for subscribing to an issue, containing an authorisation to block the application money in a bank account.

Self Certified Syndicate Bank (SCSB): SCSB is a bank which offers the facility of applying through the ASBA process. A bank desirous of offering ASBA facility is required to submit a certificate to SEBI as per the required format .

Eligiblity of Investors: An investor is eligible to apply through ASBA process, if he/she is a 'Resident Retail Individual Investor', is bidding at cut off with single option as to the number of shares bid for, is applying through blocking of funds in a bank account with SCSB, has agreed not to revise his/her bid, is not bidding under any of the reserved categories.

ASBA Process: An ASBA investor has to submit an ASBA physically or electronically through the internet banking facility, to the SCSB with whom the bank account to be blocked is maintained. The SCSB would then block the application money in the bank account specified in the ASBA. The application money would remain blocked in the bank account till finalization of the basis of allotment in the issue or till withdrawl/failure of the issue or till withdrawal/rejection of the application as the case may be. The application data would thereafter be uploaded by the SCSB in the electronic bidding system through a web enabled interface provided by the Stock Exchange. Once the basis of allotment is finalized, the Registrar to the issue sends an appropriate request to the SCSB for unblocking the relevant bank accounts and for transferring the requisite amount to the issuer's account. In case of withdrawal/failure of the issue, the amount is unblocked by the SCSB on receipt of information from the pre issue merchant bankers.

Obligation of the Issuer: The issuer has to ensure that adequate arrangements are made by the Registrar to the issue to obtain information about all ASBAs and to treat those applications similar to non-ASBA applications while finalizing the basis of allotment, as per the procedure specified in the guidelines.

Applicability of ASBA Process: ASBA process is applicable to all book-built public issues which provide for not more than one payment option to the retail individual investors.

In September 2008, the ASBA facility was extended to Rights Issue. The ASBA facility is available to all shareholders of the Issuer Company and will not be available to non-shareholders. The facility will also co-exist with the current process wherein cheque/demand draft is used as a mode of payment. The shareholder of the issuer company should hold the shares in dematerialised (demat) form in order to apply through the ASBA method. This process allows the shareholders of the issuer company to apply through the ASBA process by sending in their applications to the Self Certified Syndicate Bank (SCSB). The SCSB will then block the application amount in the bank account of the shareholder. The application money will remain blocked in the banks till the Registrar instructs the bank to release the funds. The Registrar will confirm the applications and finalise the basis of allotment.

Market Design

The primary market is governed by the provisions of the Companies Act, 1956, which deals with issues, listing and allotment of securities. Additionally the SEBI (Disclosure and Investor Protection) guidelines issued under the securities law prescribes a series of eligibility and disclosure norms to be complied by the issuer, promoter for accessing the market.

However, in this section we only discuss the market design as stipulated in the SEBI (DIP) guidelines. Disclosure and Investor Protection (DIP) Guidelines of SEBI, was issued in June 1992. SEBI has since then been issuing clarifications/ amendments to these guidelines from time to time, in order to streamline the public issue process. The guidelines apply to all public issues, offer for sale, and rights issues by listed and unlisted companies.

Eligibility Norms

Any company issuing securities has to satisfy the following conditions at the time of filing the draft offer document and the final offer document with SEBI and Registrar of Companies (RoCs)/Designated Stock Exchange respectively:

- file a draft prospectus with SEBI, through an eligible merchant banker, at least 30 days prior to the filing of prospectus with the Registrar Of Companies (RoCs).
- enter into an agreement with the depository for dematerialisation of its securities and should give an option to subscribers/shareholders/investors to receive the security certificates either in physical or in dematerialised form.

For a listed company the aggregate of the proposed issue and all previous issues made in the same financial year in terms of issue size should not exceed 5 times its pre-issue net worth. In case of the change in name of the issuer company within the last 1 year, the revenue accounted for by the activity suggested by the new name should not be less than 50% of its total revenue in the preceding one full year period.

An unlisted company can make an IPO of equity shares or any other security, which may be converted into equity shares, only if it has a track record of profitability and required net worth and net tangible assets. Some of the conditions are specified hereunder:

(i) it has net tangible assets of at least Rs. 3 crore in each of the preceding 3 full years, of which not more than 50% is held in monetary assets; provided that if more than 50% of the net tangible assets are held in monetary assets, the company has made firm commitments to deploy such excess monetary assets in its business/project;

(ii) it has a net worth of at least Rs. 1 crore in each of the preceding 3 full years;

(iii) it has a track record of distributable profits in terms of section 205 of the Companies Act, 1956, for at least 3 out of the immediately preceding 5 years; Provided further that extraordinary items shall not be considered for calculating distributable profits in terms of section 205 of Companies Act, 1956;

(iv) the aggregate of the proposed issue and all previous issues made in the same financial year in terms of size (offer through offer document *plus* firm allotment *plus* promoters contribution through the offer document) does not exceed five times its pre-issue net worth and

(v) in case the company has changed its name within the last one year, at least 50% of the revenue for the preceding one full year is earned by the company from the activity suggested by the new name.

Even if the above mentioned conditions are not satisfied, an unlisted company can still make an IPO on compliance of the guidelines as specified:

(a)(i) issue should be made through the book building process with at least 50% of net offer to public being allotted to the QIBs, if not, then the full subscription monies has to be refunded, OR

(a)(ii) the project should have at least 15% participation by FIs/SCBs of which at least 10% should come from the appraiser. In addition, at least 10% of the issue size should be allotted to QIBs, otherwise, the full subscription monies would be refunded;

AND (b)(i) minimum post-issue face value capital of the company should be Rs. 10 crore, OR (b)(ii) there should be compulsory market making for at least 2 years from the date of listing subject to certain conditions as specified in the guidelines.

Exemption from Eligibility Norms

- Banking companies including Private banks set up under clauses (c) of section 5 of the Banking Regulation Act, 1949 and which has received license from the Reserve Bank of India are exempt from the requirement of eligibility norms.

- Infrastructure companies are exempt from the requirement of eligibility norms if their project has been appraised by a public financial institution (PFI) or Infrastructure Development Finance Corporation (IDFC) or Infrastructure Leasing and Financing *Services Ltd. (IL&FS) or a bank* which was earlier a PFI and not less than 5% of the project cost is financed by any of the institutions referred above, jointly or individually, by way of loan and/or subscription to equity or a combination of both

Credit Rating for Debt Instruments

No public issue or rights issue of debt instruments (whether convertible or not) can be made unless:

(a) A credit rating of not less than investment grade is obtained from at least one credit rating agencies registered with SEBI, all the credit ratings, including the rejected ones, needs to be disclosed.

(b) The company is not in the list of willful defaulters of RBI.

(c) The company has not defaulted on payment of interest or repayment of principal of debentures issued to the public, if any for a period more than 6 months.

In case the credit rating is obtained from more than one credit rating agencies, all the credit rating/s including the unaccepted credit ratings, should be disclosed. All the credit ratings obtained during the three (3) years preceding the public or rights issue of debt instrument (including convertible instruments) for any listed security of the issuer company should be disclosed in the offer document.

IPO Grading

No unlisted company should make an IPO of equity shares or any other security which may be converted into or exchanged with equity shares at a later date, unless the following conditions are satisfied as on the date of filing of Prospectus (in case of fixed price issue) or Red Herring Prospectus (in case of book built issue) with ROC.

- The unlisted company has obtained grading for the IPO from atleast one credit rating agency.
- Disclosures of all the grades obtained along with the rationale/description furnished by the credit rating agency(ies) for each of the grades obtained, have been made in the Prospectus (in case of fixed price issue) or Red Herring Prospectus (in case of book built issue)
- The expenses incurred for grading IPO have been borne by the unlisted company obtaining grading for IPO.

Every unlisted company obtaining grading for IPO should disclose the grades obtained, along with the rationale/ description furnished by the credit rating agency(ies) for each of the grades obtained in the prospectus, abridged prospectus, issue advertisements and at all other places where the issuer company is advertising for the IPO.

Pricing of Issues

The companies, including the eligible infrastructure companies, have the freedom to price their equity shares or any security convertible into equity in public or rights issues as the case may be. The banks however, can price their shares subject to the approval by the RBI. A company (listed or unlisted) should issue shares to applicants in the firm allotment category at a different price from the one at which the net offer to the public is made. That is, at a higher price than at which the securities are offered to the public.

In case of initial public offerings by unlisted company, if the issue price is Rs. 500 or more, the issuer company shall have the discretion to fix the face value below Rs. 10 per share, subject to the condition that the face value shall in no case be less than Rs. 1 per share. However, in case the issue price is less than Rs. 500 per share, the face value shall be Rs. 10 per share.

Price Band

- The Issuer company can mention a price band of 20% (cap in the price band should not be more than 20% of the floor price) in the offer documents filed with the Board and actual price can be determined at a later date before filling of the offer document with the ROCs.
- If the Board of Directors has been authorized to determine the offer price within a specified price band such price should be determined by a Resolution to be passed by the Board of Directors.
- In case of a public issue by a listed issuer company, issue price or price band may not be disclosed in the draft prospectus filed with the Board.

- In case of a rights issue, issue price or price band may not be disclosed in the draft letter of offer filed with the Board. The issue price may be determined any time before fixation of the record date, in consultation with the Designated Stock Exchange. The final offer document should contain only one price and one set of financial projections, if applicable.

Contribution of Promoters and lock-in

- The promoters' contribution in case of public issues by unlisted companies should not be less than 20% of the post issue capital.
- In case of public issues by listed companies, promoters should contribute to the extent of 20% of the proposed issue or should ensure post-issue share holding to the extent of 20% of the post-issue capital.
- For a composite issue, the promoters' contribution should either be 20% of the proposed public issue or 20% of the post-issue capital.
- At least one day prior to the opening of the issue the promoters should bring in the full amount of the promoters contribution including premium which should be kept in an escrow account with a Scheduled Commercial Bank and the said contribution/amount should be released to the company along with the public issue proceed. Except for (i) public issue of securities which have been listed for at least 3 years and has a track record of dividend payment for at least 3 immediate preceding years, (ii) companies wherein no identifiable promoter or promoter group exists, and (iii) rights issues.
- The minimum promoters' contribution should be locked in for a period of 3 years in case of all types of issues. However, in case of public issue of an unlisted company if the promoters' contribution exceeds the required minimum, then the excess is locked in for a period of one year.
- The lock-in period starts from the date of allotment in the proposed public issue and the last date of the lock-in is to be reckoned as three years from the date of commencement of commercial production or the date of allotment in the public issue whichever is later.
- In case of pre-issue share capital of unlisted company, the entire pre-issue share capital, other than that locked in as minimum promoter's contribution, is locked for a period of one year from the date of allotment in the proposed public issue. Securities allotted in firm allotment basis are also locked in for a period of one year from the date of commencement of commercial production or the date of allotment in the public issue whichever is later. The locked-in securities held by promoters may be pledged only with banks or FIs as collateral security for loans granted by such banks or FIs.

Pre-Issue Obligations

The lead merchant banker has to exercises due diligence and satisfy himself about all aspects of offering, veracity and adequacy of disclosures in the offer document. The liability of the merchant banker will continue even after the completion of issue process.

The lead merchant banker has to pay the requisite fee in accordance with regulation 24A of the Securities and Exchange Board of India (Merchants bankers) Rules and Regulations, 1992 along with draft offer document filed with the Board. In case of a fast track issue, the requisite fee shall be paid along with the copy of the red herring prospectus, prospectus or letter of offer, as the case may be.

Each company issuing securities through public or rights issue has to enter into a Memorandum of Understanding with the lead merchant banker, which specifies their mutual rights, liabilities and obligations.

- The lead merchant banker responsible for drafting of the offer documents has to submit to the Board the copy of the MOU entered into with the issuer company and the draft of the offer document.
- In case a public or rights issue is managed by more than one merchant banker the rights, obligation and responsibilities of each merchant banker should be demarcated as specified *in schedule II*
- In case of under subscription of an issue, the Lead Merchant Banker responsible for underwriting arrangements should invoke underwriting obligations and ensure that the underwriters pay the amount of development and the same should be incorporated in the inter se allocation of responsibilities *(schedule II)* accompanying the due

diligence certificate submitted by the Lead Merchant Banker to the Board. In case of a fast track issue, inter se allocation of responsibilities (Schedule II) is not to be submitted to the Board.

- The lead Merchant Banker should furnish to the Board a due diligence certificate as specified in *schedule III A* along with the draft offer document.

In case of a fast track issue, the lead merchant banker should furnish a due diligence certificate to the Board as per the format specified in Schedule III as specified in Schedule VIA, along with the copy of the red herring prospectus, prospectus or letter of offer, as the case may be.

The Merchant Banker appointed should not lead manage the issue if he is a promoter or a director or associate of the issuer company provided the securities he holds of the issuer company are listed or proposed to be listed on the Over the Counter Exchange of India (OTCEI) and the Market Makers have either been appointed or proposed to be appointed as per the offer document. A merchant banker who is an associate of the issuer company may be appointed as a merchant banker for the issuer, if it is involved only in the marketing of the issue.

The lead merchant bankers should satisfy themselves about the ability of the underwriters to discharge their under writing obligations. In respect of every underwritten issue, the lead merchant banker(s) should undertake a minimum underwriting obligation of 5% to the total underwriting commitment of Rs.25 lakhs whichever is less. The outstanding underwriting commitments of a merchant banker should not exceed 20 times its net worth at any point of time. In respect of an underwritten issue, the lead merchant banker should ensure that the relevant details of underwriters are included in the offer document.

The draft offer documents filed with the Board should be made public for a period of 15 days from the date of filing the offer document with the Board and filed with the stock exchanges where the securities are proposed to be listed. Further, the draft offer documents should be put on the websites of the lead managers/syndicate members associated with the issue and also ensure that the contents of documents hosted on the websites are the same as that of their printed versions.

Twenty-one days after the draft offer document has been made public, the lead merchant banker should file a statement with the Board giving a list of complaints received, a statement as to whether it is proposed to amend the draft offer document or not, and highlighting those amendments.

The lead manager should also ensure that the issuer company has entered into agreements with all the depositories for dematerialization of securities.

An issuer company has to appoint a compliance officer who will directly liaise between the Board and the issuer company with regard to compliance of various laws, rules, regulations and other directives issued by the Board.

Post-Issue Obligations

Subsequent to the post issue, the lead merchant banker should ensure that the post-issue monitoring reports are submitted irrespective of the level of subscription. Also, the merchant banker should be associated with allotment, refund and dispatch and also monitor the redressal of investor grievances arising therefrom.

In a public issue, the Executive Director/Managing Director of the Designated Stock Exchange along with the post issue Lead Merchant Banker and the Registrars to the Issue are responsible for the finalization of allotment in a fair and proper manner.

Allotment should be on proportionate basis within the specified categories rounded off to the nearest integer subject to the minimum allotment being equal to the minimum application size as fixed and disclosed by the issuer. The proportionate basis of allotment of securities in an issue that is oversubscribed should be subject to the reservation for retail individual investors i.e a minimum of 50% of the net offer of securities to the public should initially be made available for allotment to retail individual investors as the case may be. The balance net offer of securities to the public should be made available for allotment to individual applicants other than retail individual investors and other investors including corporate bodies/institutions irrespective of the number of shares, debentures, etc. applied for. The unsubscribed portion of the net offer to any one of these categories should be made available for allotment to applicants in the other category if so required.

The lead merchant banker should ensure that the dispatch of share certificates/refund orders and demat credit is completed and the allotment and listing documents submitted to the stock exchanges within 2 working days of the date of allotment.

Book Building

Book building is a price discovery mechanism based on the bids received at various prices from the investors, for which demand is assessed and then the price of the securities is discovered.

The issuer proposing to issue capital through book-building has two options, *viz.,* 75% book building route and 100% book building route. In case of issue of securities through the first route, 75% of the net offer to the public is made through book-building process and 25% at the price determined by book-building. In this case not more than 50% should be available for allocation to QIBs and not less than 25% to non-QIBs. In case of under subscription in any category, the unsubscribed portions can be allocated to the bidders in other categories.

Besides, book building also requires that: issuer should provide indicative floor price and no ceiling price, bids to remain open for at least 3 working days and not more than 7 working days (which may be extended to a maximum of 10 working days in case the price band is revised). Only electronic bidding is permitted, bids are submitted through syndicate members, investors can bid at any price, retail investors have option to bid at cut off price, bidding demand is displayed at the end of every day, the lead manager analyses the demand generated and determines the issue price in consultation with the issuer, etc.

e-IPOs

A company proposing to issue capital to public through the on-line system of the stock exchanges has to enter into an agreement with the Stock Exchange(s). SEBI registered brokers should be appointed for the purpose of accepting applications and placing orders with the company. The issuer company should also appoint a Registrar to the Issue having electronic connectivity with the Exchanges. The issuer company can apply for listing of its securities on any Exchange other than the Exchange through which it has offered its securities. The lead manager co-ordinates all the activities amongst various intermediaries connected in the issue/system.

Credit Rating

Credit rating agencies (CRA) can be promoted by public financial institutions, scheduled commercial banks, foreign banks operating in India, by any body corporate having continuous minimum net worth of Rs.100 crore for the previous five years. Further, foreign credit rating agencies recognized by or under any law for the time being in force in the country of its incorporation, having at least five years experience in rating securities can also operate in the country. The SEBI (Credit Rating Agencies) Regulations, 1999 cover the rating of the securities listed and not fixed deposits, foreign exchange, country ratings and real estates. No company can make a public issue or rights issue of debt instruments (whether convertible or not), unless credit rating is obtained from at least one credit rating agency registered with the Board and disclosed in the offer document. Where ratings are obtained from more than one credit rating agencies, all the ratings including the unaccepted ratings should be disclosed in the offer document.

Merchant Banking

The merchant banking activity in India is governed by SEBI (Merchant Bankers) Regulations, 1992. Consequently, all the merchant bankers have to be registered with SEBI. The details about them are presented in the table below:

Category of Merchant Banker	Permitted Activity
Category I	To carry on activity of the issue management, to act as adviser, consultant, manager, underwriter, portfolio manager
Category II	To act as adviser, consultant, co-manager, underwriter, portfolio manager
Category III	To act as underwriter, adviser, consultant to an issue
Category IV	To act only as adviser or consultant to an issue

Only a corporate body other than a non-banking financial company having necessary infrastructure, with at least two experienced persons employed can apply for registration as a merchant banker. The capital adequacy requirement should be a net worth of Rupees Fifty million. The regulations cover the code of conduct to be followed by merchant bankers, responsibilities of lead managers, payments of fees and disclosures to SEBI.

Demat issues

SEBI has mandated that all new IPOs compulsorily should be traded in dematerialised form only. Further, the section 68B of the Companies Act, 1956, requires that every listed public company making IPO of any security for Rs. 10 crore or more should issue the same only in dematerialised form. The investors, however, would have the option of either subscribing to securities in physical or dematerialised form.

Private Placement

The private placement involves issue of securities, debt or equity, to selected subscribers, such as banks, FIs, MFs and high net worth individuals. It is arranged through a merchant/investment banker, who acts as an agent of the issuer and brings together the issuer and the investor(s). Since these securities are allotted to a few sophisticated and experienced investors, the stringent public disclosure regulations and registration requirements are relaxed. The Companies Act, 1956, states that an offer of securities to more than 50 persons is deemed to be public issue.

Market Outcome

Public Issues

Total resource mobilization from public equity issues increased by 159.73% to Rs.870,290 million (US $ 21,774 million) in 2007-08 from Rs.335,080 million (US $ 7,687 million) in 2006-07.

The public issues of listed companies witnessed a significant increase of 822% in the resources mobilized to Rs. 119,160 million (US $ 2,981 million), from Rs.12,930 million (US $ 297 million) in 2006-07. In case of Rights issues, the resources mobilized increased from Rs. 37,110 million (US $ 851 million) during 2006-07 to Rs. 325,180 million (US $ 8,136 million) in 2007-08 a colossal rise of 776 %. During April-June 2008, there 2 rights issues worth Rs.4,380 (US$ 102 million).(Table 2-2)

Table 2-2: Resource Mobilisation from Public Equity Issues

Issue	2006-07		2007-08		(April 08-June 08)		2006-07	2007-08	2008-09 (April 08-June 08)
	Number	Amount (Rs. mn)	Number	Amount (Rs. mn)	Number	Amount (Rs. mn)	Amount (US $ mn)		
IPOs	**77**	**285,040**	**85**	**425,950**	**13**	**15,930**	**6,539**	**10,657**	**371**
Issues by Listed Companies	**47**	**50,040**	**39**	**444,340**	**2**	**4,380**	**1,148**	**11,117**	**102**
Public Issues	8	12,930	7	119,160	-	-	297	2,981	-
Rights Issues	39	37,110	32	325,180	2	4,380	851	8,136	02
Total	**124**	**335,080**	**124**	**870,290**	**15**	**20,310**	**7,687**	**21,774**	**473**

Source:SEBI

On the other hand, around 49% of the total resources were raised through the IPO route during the FY2008 as compared with 85% last year. However, the number of issuers of IPO's increased to 85 as compared to 77 issuers in 2006-07. The total resources mobilized through IPOs increased to Rs.425,950 million (US $ 10,657 million) in 2007-08 as against Rs.285,040 million (US $ 6,539 million) in the preceding year, an increase of 49.44 %. During April – June 2008, there were 13 IPOs mobilising Rs.15,930 million (US $ 371 million). (Table 2-2)

Most of the public equity issues were made by private sector companies. Of the 124 issuers who tapped the market in 2007-08, 120 issues were from the private sector issuers. They mobilized around 77.35% of the total resources raised. The public sector companies came out with 4 issues mobilizing 22.66% to the total resources mobilized. During April-June 2008, the private sector made 15 issues and mobilized Rs.20,310 million (US$ 473 million), there were no issues by the public sector. (Table 2-3)

Table 2-3: Sector-wise Distribution of Resources Mobilised by Public Equity Issues

Sector	2006-07		2007-08		April 08- June 08		2006-07	2007-08	April 08- June 08
	Number	Amount (Rs. mn)	Number	Amount (Rs. mn)	Number	Amount (Rs. mn)	Amount (US $ mn)		
Private	122	317,280	120	673,110	15	20,310	7,279	182	473
Public	2	17,790	4	197,180	--	--	408	10	--
Total	**124**	**335,070**	**124**	**870,290**	**15**	**20,310**	**7,687**	**192**	**473**

-- Nil
Source: SEBI

During 2007-08, there were 31 mega issues (Rs.3,000 million and above), the largest issue being the Rights issue (fast track) of State Bank of India Ltd. (Rs.16,7360 million/US$ 4,187.14 million) followed by Reliance Power IPO (Rs. 115,630 million/ US $ 2,892.92 million and FPO of ICICI Bank of Rs.100,630 million.

As per the Prime Annual report, the response to public issues has been good in the year 2007-08. Though 22 % of the public issues failed to elicit response (less than 1.5 times) there were 44% of issues were subscribed over 10 times. The most subscribed issues during 2007-08 were Religare Enterprises Ltd, which was over subscribed 158.63 times followed by, Everonn Systems India Ltd. which was over-subscribed 143.99 times. During April-June 2008, 46% of the issues were subscribed less than 1.5 times, 31% issues were subscribed between 3 to 10 times while there were only 2 issues (i.e 15%) which were subscribed more than 10 times. (Table 2-4)

Table 2-4: Response to Public Issues

(% of issues)

Times Subscribed	2006-07	2007-08	April-June 2008
< 1.5	26	22	46
1.5 - 3	16	11	8
3 - 10	25	23	31
> 10	33	44	15
	100	100	100

Source: Prime Database

Public issues are moblilised through both debt and equity issues. From 1995-96 onwards, the percentage of resource mobilization through equity issues has been larger as compared to debt issue, the only exception being the year 1999-2000 when 84.66% of the resources were moblised through debt issues. The other two years when debt issue mobilization was more than equity were, 2001-02 and 2002-03 when the share of debt accounted for 83.12% and 82% of the total resource mobilization. Of late, the resource mobilization by debt issues is nearly negligible. In the year 2005-06 and 2006-07, the resource mobilization through equity issue was 100%, which has been the highest ever in the history of the Indian capital market. During 2007-08, the share of equity in resource mobilization through public issues was 98.12% and the share of debt was 1.88%. During the cumulative period April-June 2008 the share of equity in resource moblisation was 100 %.(Table 2-5).

Table 2-5: Resources Mobilised through Debt and Equity (Public Issues)

Year	Percentage Share	
	Equity	Debt
1995-96	72.39	27.61
1996-97	55.99	44.01
1997-98	41.17	58.83
1998-99	15.34	84.66
1999-00	58.41	41.59
2000-01	52.79	47.21
2001-02	16.88	83.12
2002-03	18.00	82.00
2003-04	80.47	19.53
2004-05	83.96	16.04
2005-06	100.00	0.00
2006-07	100.00	0.00
2007-08	**98.12**	**1.88**
April-June 2008	**100.00**	**0.00**

Source: Prime Database

During the period 2001-02 to 2005-06, data on resource mobilisation through public equity issues by various industries shows that the Banking and Financial sector had been the most dominant sector in garnering a share of 40% to 60% of the total resources raised. However, this sector accounted a meager share of 6.53 % during 2006-07. This segment again caught momentum in the year 2007-08 wherein it mobilized 35.57% of the total resources. During 2007-08, the cement sector was the second largest sector to mobilise resources through public equity issue and cornered a share of 21.72% while the power sector accounted for a share of 15.75%. Except for the above three cited sectors i.e the Banking/FI, Cement and Power, all other sectors like Entertainment, Finance, IT, Telecom and Textile saw a fall in share in resource mobilization through public equity issue as compared with its share in the corresponding period last year. During April-June 2008, the share of power sector in resource mobilization was the highest at 40.90% while the textile sector's share was 10.48%. (Table 2-6).

Table 2-6: Industry-wise Resource Mobilisation by Public Equity Issues

Industry	Percentage Share		
	2006-07	2007-08	April-June 20008
Banking/FIs	6.54	35.57	-
Cement & Construction	8.20	21.72	3.05
Chemical	0.44	0.76	-
Entertainment	3.64	0.46	-
Finance	8.25	2.04	-
Information Technology	6.20	0.79	-
Paper & Pulp	0.04	0.04	-
Power	0.09	15.75	40.90
Telecom	8.94	1.15	0.69
Textile	3.18	0.51	10.48
Others	54.48	21.21	44.88
Total	**100.00**	**100.00**	**100.00**

Source: SEBI

Euro Issues

Indian companies raise resources from international markets through the issue of Foreign Currency Convertible Bonds (FCCBs), GDRs and ADRs. GDRs/ADRs are similar to Indian shares and are traded on overseas stock exchanges. In India, they are reckoned as part of foreign direct investment and hence, need to conform to the existing FDI policy. During 2007-08, there was a significant spurt in the resources mobilised through Euro issues, that increased to Rs. 265,560 million (US$ 6,644 million) as against Rs. 170,050 million (US$ 3,901 million) raised during 2006-07. Resources raised through Euro Issues- ADRs and GDRs by Indian corporates during April-June 2008 at Rs.40,560 million (US $ 944 million). (Table 2-1).

Performance of IPOs

During 2007-08, seventy four (74) IPOs were listed on NSE which belonged to various different sectors viz., banks, Finance, FMCG, IT, Infrastructure, Manufacturing, Petrochemicals, Pharmaceuticals, Services and Telecommunication. There was an appreciation in the market price on the first day of trading of 54 IPOs. The price of Burnpur Cement Limited rose by a whopping 300.42% followed by Everonn Systems India Ltd. which saw an increase of 240.96% and Religare Enterprises Limited saw an increase of 183.95%. Around 20 IPOs showed negative returns on the first day of listing/trading and 33 IPOs showed negative returns by the year end March 2008 as compared to their issue price. (Table 2-7 a).

During April-June, there were 6 IPOs listed at NSE out which only three IPO's traded at premium on the first day of trading. The performance of these IPO's is shown in Table 2-7(b).

Table 2-7(a): Performance of IPOs listed on NSE during 2007-08

S.No.	Company Name	Sector	Date of Listing	Issue Price (Rs.)	Close Price on first day of trading (Rs.)	Close Price at end of March 2008 (Rs.)	Price Appreciation/ Depreciation on the first day of trading(%)	Price Appreciation/ Depreciation at end March 2008(%)
1	Orbit Corporation Limited	Infrastructure	12-Apr-07	110	128.20	527.10	16.55	379.18
2	ICRA Limited	Finance	13-Apr-07	330	803.25	664.05	143.41	101.23
3	Advanta India Limited	FMCG	19-Apr-07	640	845.50	1063.65	32.11	66.20
4	Fortis Healthcare Limited	Miscellaneous	9-May-07	108	100.15	83.40	(7.27)	(22.78)
5	Bhagwati Banquets and Hotels Limited	Services	17-May-07	40	49.05	71.15	22.63	77.88
6	Hilton Metal Forging Limited	Manufacturing	24-May-07	70	67.75	27.70	(3.21)	(60.43)
7	Binani Cement Limited	Manufacturing	28-May-07	75	69.05	62.45	(7.93)	(16.73)
8	MIC Electronics Limited	Telecommunication	30-May-07	150	338.15	715.30	125.43	376.87
9	Insecticides (India) Limited	Petrochemicals	30-May-07	115	109.45	46.85	(4.83)	(59.26)
10	Nitin Fire Protection Industries Limited	Miscellaneous	5-Jun-07	190	484.85	404.90	155.18	113.11
11	Time Technoplast Limited	Manufacturing	13-Jun-07	315	480.90	791.75	52.67	151.35
12	Glory Polyfilms Limited	Manufacturing	18-Jun-07	48	62.10	66.00	29.38	37.50
13	Decolight Ceramics Limited	Miscellaneous	19-Jun-07	54	44.65	19.85	(17.31)	(63.24)
14	Nelcast Limited	Manufacturing	27-Jun-07	219	207.35	97.30	(5.32)	(55.57)
15	Meghmani Organics Limited	Petrochemicals	28-Jun-07	19	26.60	21.10	40.00	11.05
16	Vishal Retail Limited	Miscellaneous	4-Jul-07	270	753.10	831.30	178.93	207.89
17	DLF Limited	Infrastructure	5-Jul-07	525	569.80	645.75	8.53	23.00
18	Roman Tarmat Limited	Infrastructure	9-Jul-07	175	319.20	72.75	82.40	(58.43)
19	Celestial Labs Limited	Pharmaceuticals	17-Jul-07	60	67.55	37.30	12.58	(37.83)

Contd.

Contd.

S.No.	Company Name	Sector	Date of Listing	Issue Price (Rs.)	Close Price on first day of trading (Rs.)	Close Price at end of March 2008 (Rs.)	Price Appreciation/ Depreciation on the first day of trading(%)	Price Appreciation/ Depreciation at end March 2008(%)
20	Housing Development and Infrastructure Limited	Infrastructure	24-Jul-07	500	559.35	657.25	11.87	31.45
21	Allied Digital Services Limited	Information Technology	25-Jul-07	190	330.15	793.40	73.76	317.58
22	Everonn Systems India Limited	Information Technology	1-Aug-07	140	477.35	584.35	240.96	317.39
23	Simplex Projects Limited	Infrastructure	3-Aug-07	185	273.70	219.60	47.95	18.70
24	Alpa Laboratories Limited	Pharmaceuticals	6-Aug-07	68	55.15	28.45	(18.90)	(58.16)
25	Omaxe Limited	Infrastructure	9-Aug-07	310	349.35	207.35	12.69	(33.11)
26	Omnitech Infosolutions Limited	Information Technology	14-Aug-07	105	163.40	128.95	55.62	22.81
27	IVR Prime Urban Developers Limited	Infrastructure	16-Aug-07	510	417.90	175.55	(18.06)	(65.58)
28	Zylog Systems Limited	Information Technology	17-Aug-07	350	427.50	183.10	22.14	(47.69)
29	Central Bank of India	BANKS	21-Aug-07	102	115.30	86.90	13.04	(14.80)
30	SEL Manufacturing Company Limited	Manufacturing	21-Aug-07	90	144.75	323.85	60.83	259.83
31	Asian Granito India Limited	Manufacturing	23-Aug-07	97	94.20	50.75	(2.89)	(47.68)
32	Take Solutions Limited	Information Technology	27-Aug-07	730	927.80	771.65	27.10	5.71
33	K.P.R. Mill Limited	Manufacturing	28-Aug-07	225	174.20	96.05	(22.58)	(57.31)
34	Puravankara Projects Limited	Infrastructure	30-Aug-07	400	362.30	241.05	(9.43)	(39.74)
35	Motilal Oswal Financial Services Limited	Finance	11-Sep-07	825	976.85	677.35	18.41	(17.90)
36	Indowind Energy Limited	Manufacturing	14-Sep-07	65	113.65	69.30	74.85	6.62
37	Magnum Ventures Limited	Manufacturing	20-Sep-07	30	49.40	13.85	64.67	(53.83)
38	Kaveri Seed Company Limited	FMCG	4-Oct-07	170	230.95	279.90	35.85	64.65
39	Power Grid Corporation of India Limited	Infrastructure	5-Oct-07	52	100.60	98.30	93.46	89.04
40	Koutons Retail India Limited	Manufacturing	12-Oct-07	415	586.50	805.30	41.33	94.05
41	Consolidated Construction Consortium Limited	Infrastructure	15-Oct-07	510	792.10	732.70	55.31	43.67
42	Dhanus Technologies Limited	Telecommunication	17-Oct-07	285	309.75	165.60	8.68	(41.89)
43	Supreme Infrastructure India Limited	Infrastructure	18-Oct-07	108	175.10	81.45	62.13	(24.58)
44	Maytas Infra Limited	Infrastructure	25-Oct-07	370	613.35	716.30	65.77	93.59
45	Religare Enterprises Limited	Finance	21-Nov-07	185	525.30	372.00	183.95	101.08
46	Varun Industries Limited	Manufacturing	22-Nov-07	60	112.20	61.05	87.00	1.75
47	Barak Valley Cements Limited	Manufacturing	23-Nov-07	42	55.30	32.85	31.67	(21.79)
48	Empee Distilleries Limited	FMCG	26-Nov-07	400	319.35	153.10	(20.16)	(61.73)
49	Mundra Port and Special Economic Zone Limited	Services	27-Nov-07	440	962.90	578.75	118.84	31.53
50	Edelweiss Capital Limited	Finance	12-Dec-07	825	1510.25	827.45	83.06	0.30
51	Renaissance Jewellery Limited	Miscellaneous	12-Dec-07	150	164.90	71.80	9.93	(52.13)
52	Kolte - Patil Developers Limited	Infrastructure	13-Dec-07	145	181.35	95.70	25.07	(34.00)

Contd.

Contd.

S.No.	Company Name	Sector	Date of Listing	Issue Price (Rs.)	Close Price on first day of trading (Rs.)	Close Price at end of March 2008 (Rs.)	Price Appreciation/ Depreciation on the first day of trading(%)	Price Appreciation/ Depreciation at end March 2008(%)
53	Kaushalya Infrastructure Development Corporation Limited	Infrastructure	14-Dec-2007	60	82.45	35.25	37.42	(41.25)
54	Jyothy Laboratories Limited	Pharmaceuticals	19-Dec-07	690	794.05	785.30	15.08	13.81
55	Transformers And Rectifiers (India) Limited	Infrastructure	28-Dec-07	465	729.25	395.35	56.83	(14.98)
56	Brigade Enterprises Limited	Infrastructure	31-Dec-07	390	379.90	168.55	(2.59)	(56.78)
57	eClerx Services Limited	Information Technology	31-Dec-07	315	449.65	246.40	42.75	(21.78)
58	BGR Energy Systems Limited	Manufacturing	3-Jan-08	480	901.45	341.90	87.80	(28.77)
59	Burnpur Cement Limited	Manufacturing	3-Jan-08	12	48.05	21.95		82.92
60	Aries Agro Limited	Petrochemicals	11-Jan-08	130	251.40	120.75	93.38	(7.12)
61	Precision Pipes And Profiles Company Limited	Manufacturing	11-Jan-08	150	136.10	67.45	(9.27)	(55.03)
62	Future Capital Holdings Limited	Finance	1-Feb-08	765	909.80	639.55	18.93	(16.40)
63	Reliance Power Limited	Infrastructure	11-Feb-08	450	372.30	318..00	(17.27)	(29.33)
64	J.Kumar Infraprojects Limited	Infrastructure	12-Feb-08	110	103.35	80.45	(6.05)	(26.86)
65	Cords Cable Industries Limited	Manufacturing	13-Feb-08	135	139.45	84.65	3.30	(37.30)
66	KNR Constructions Limited	Infrastructure	18-Feb-08	170	154.90	84.60	(8.88)	(50.24)
67	OnMobile Global Limited	Petrochemicals	19-Feb-08	440	518.15	544.10	17.76	23.66
68	Bang Overseas Limited	Manufacturing	20-Feb-08	207	174.10	122.60	(15.89)	(40.77)
69	Shriram EPC Limited	Infrastructure	20-Feb-08	300	286.50	238.00	(4.50)	(20.67)
70	IRB Infrastructure Developers Limited	Infrastructure	25-Feb-08	185	189.65	169.35	2.51	(8.46)
71	Tulsi Extrusions Limited	Miscellaneous	25-Feb-08	85	140.85	76.45	65.71	(10.06)
72	Gss America Infrastructure Projects Limited	Information Technology	7-Mar-08	400	500.80	757.10	25.20	89.28
73	Rural Electrification Corporation Limited	Finance	12-Mar-08	105	121.30	106.45	15.52	1.38
74	V-Guard Industries Limited	Manufacturing	13-Mar-08	82	75.95	64.60	(7.38)	(21.22)

Table 2-7 (b): Performance of IPOs listed on NSE during April-June 2008

S.No.	Company Name	Sector	Date of Listing	Issue Price (Rs.)	Close Price on first day of trading (Rs.)	Close Price at end of June 2008 (Rs.)	Price Appreciation/ Depreciation on the first day of trading(%)	Price Appreciation/ Depreciation at end June 2008 (%)
1	Gammon Infrastructure Projects Limited	Infrastructure	3-Apr-2008	167.00	158.15	120.10	(5.30)	(28.08)
2	Sita Shree Food Products Limited	Manufacturing	7-Apr-2008	30.00	43.70	18	45.67	(40.00)
3	Titagarh Wagons Limited	Manufacturing	21-Apr-2008	540.00	706.85	545.75	30.90	1.06
4	Kiri Dyes and Chemicals Limited	Manufacturing	22-Apr-2008	150.00	158.95	148.40	5.97	(1.07)
5	Gokul Refoils and Solvent Limited	Manufacturing	4-Jun-2008	195.00	182.05	203.95	(6.64)	4.59

Source:NSE

Book Building through On-line IPO System

Book building is basically a process used in IPO for efficient price discovery, wherein during the period when the offer is open, bids are collected from investors at various prices, which are above or equal to the floor price. The offer price is determined after the bid closing date. In its endeavour to continuously improve the Indian securities market, NSE has offered an infrastructure for conducting online IPOs through book building. It helps to discover prices as well as demand for the security to be issued through a process of bidding. The advantages are: (a) the investor parts with money only after the allotment (b) it eliminates refunds except in case of direct applications and (c) it reduces the time taken to process the issue. Till March 2008, 199 issuers have used the NSE online IPO system for making IPO issues.

Debt Issues

Government and corporate sector collectively raised a total of Rs. 3,722,501 million (US $ 93,132 million) from primary market during 2007-08. About 68.77% has been raised by the Government, while the balance by the corporate sector through private placement. During April-June 2008, the government and the corporates raised Rs.2,543,101 crore (US$ 59,211 million) from the debt market. (Table 2-8).

Table 2-8: Resources Raised from Debt Markets

Issuer	(Rs. mn.)			(US$. mn.)		
	2006-07	2007-08	April-June 2008	2006-07	2007-08	April-June 2008
Corporate	923,552	1,162,661	194,681	21,187	29,088	4,533
Public Issues	-	10,000	-	-	250	-
Private Placement*	923,552	1,152,661	194,681	21,187	28,838	4,533
Government	2,001,980	2,559,840	2,348,420	45,928	64,044	54,678
Total	**2,925,532**	**3,722,501**	**2,543,101**	**67,115**	**93,132**	**59,211**

* Only debt placements with a tenor and put / call option of 1 year or more.

Source: Prime Database (for corporate debt) & RBI Annual Report 2007-08 (for Government debt).

Private Placement of Debt

According to Prime Database estimates, a total of 104 issuers (institutional and corporates) raised Rs. 1,152,661 million (US $ 28,838 million) through 613 privately placed issues in 2007-08 Response to most of the issues was good. 246 issues out of 613 issues i.e around 40% of the total issues were made by the government sector units, which mobilized 80% of the total. During the period April-June 2008, there were 40 issuers which placed 124 issues amounting to Rs.194,680.70 million.(Table 2-9). The amount raised through the private placement of debt issues have been on an increasing trend over the past few years (Chart 2-1).

Table 2-9: Private Placement - Institutional & Corporate Debt

Year	No. of issuers	No. of Privately Placed issues	Resource Mobilisation through Private Placement of Debt (Rs. mn)	Resource Mobilisation through Private Placement of Debt (US $ mn)
1995-96	47	73	100,353	2,921
1996-97	159	204	183,908	5,126
1997-98	151	253	309,833	7,838
1998-99	204	444	386,427	9,107
1999-00	229	711	550,734	12,626

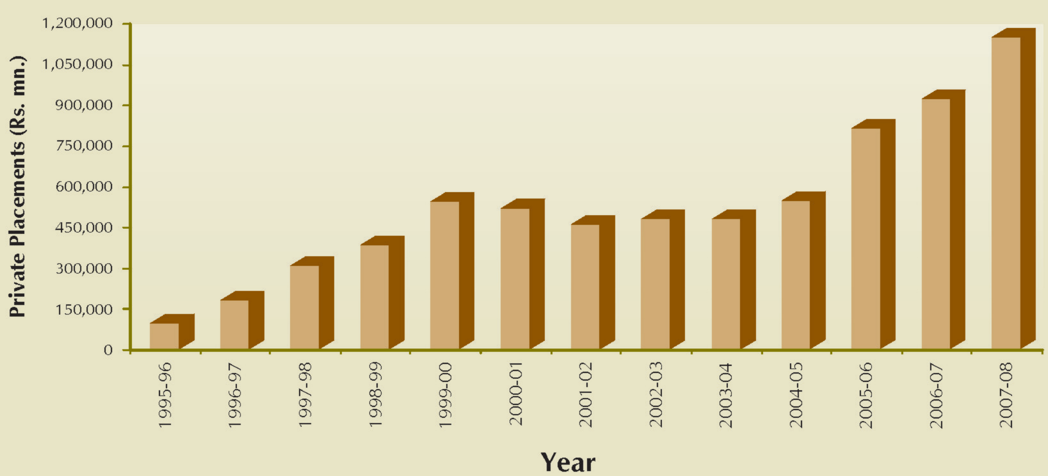
Contd.

Contd.

Year	No. of issuers	No. of Privately Placed issues	Resource Mobilisation through Private Placement of Debt (Rs. mn)	Resource Mobilisation through Private Placement of Debt (US $ mn)
2000-01	214	603	524,560	11,247
2001-02	204	557	454,269	9,309
2002-03	171	485	484,236	10,194
2003-04	140	364	484,279	11,161
2004-05	117	321	554,088	12,665
2005-06	99	366	818,466	18,347
2006-07	98	500	938,552	21,531
2007-08	**104**	**613**	**1,152,661**	**28,838**
April - June 2008	**40**	**124**	**194,681**	**4,533**

Source:Prime Database

Chart 2-1: Growth of Private Placement of Debt



Mostly, debt securities were privately placed. Though, there were some instances of private placements of equity shares, there is no comprehensive data coverage of this. The two sources of information regarding private placement market in India are Prime Database and RBI. The former data set, however, pertains exclusively to debt issues. RBI data, which is complied from information gathered from arrangers, covers equity private placements also. RBI estimates the share of equity in total private placements as rather insignificant. Some idea, however, can be derived from the equity shares issued by NSE-listed companies on private placement basis. A total of 415 private placements mobilised around Rs.315,823 million (US$ 7,353 million) during April 2007 to June 2008 as compared to 207 private placements amounting to Rs. 122,166 million (US$ 2,803 million) during 2006-07 (Annexure 2-1).

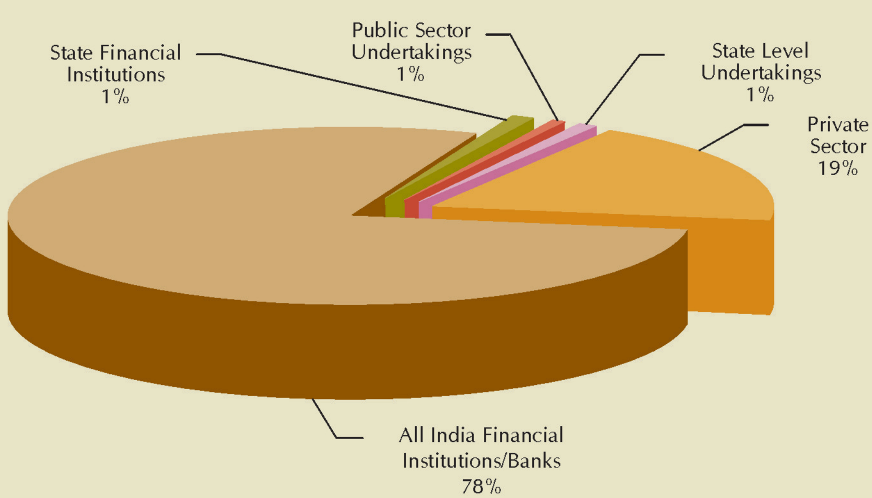
Of the 613 debt private placements, 246 were from the government/banking sector, mobilizing 81.18 % (Rs.935,770 million/ US $ 23,412 million) of the total resources. The All India Financial Institutions (AIFIs) & Banks continued to top the list with 78.22 % (Rs.901,643 million/ US $ 22,588 million), followed by the Private Sector with 18.82 % share (Rs. 216,891 million/ US $ 5,426 million) (Table 2-10 and Chart 2-2). By number of issues, the All India financial institutions dominated with 227 placements.

Table 2-10: Issuer-wise Distribution of Private Placement of Debt

Issuer	Issue Amount (Rs. mn.)			Issue Amount (US $.mn.)			% of Issue Amount		
	2006-07	2007-08	April-June 2008	2006-07	2007-08	April-June 2008	2006-07	2007-08	April-June 2008
All India Financial Institutions/Banks	696,928	901,643	99,670	15,988	22,558	2,321	75	78	51
State Financial Institutions	11,920	13,089	0	273	327	-	1	1	0
Public Sector Undertakings	61,783	7,559	0	1,417	189	-	7	1	0
State Level Undertakings	7,517	13,480	5,000	172	337	116	1	1	3
Private Sector	145,405	216,891	90,011	3,336	5,426	2,096	16	19	46
Total	**923,552**	**1,152,661**	**194,681**	**21,187**	28,838	4,533	**100**	100	100

Source: Prime Database

Chart 2-2: Issuer-wise Distribution of Private Placement of Debt, 2007-08



Sectoral distribution shows that the banking continued to dominate the private placement market, raising 59.17 % in 2007-08, followed by financial sector , which accounted for 31.47 % during the year (Table 2-11).

Table 2-11: Sectoral Distribution of Resources Mobilised by Private Placement

Sector	Percentage Share		
	2006-07	2007-08	April-June 2008
Banking	66.61	59.17	**39.85**
Financial Services	23.24	31.47	**29.01**
Power	7.31	3.01	**7.7**
Roads & Highways	0.63	0.33	**-**
Travel/Transportation	0.44	0.07	**-**
Telecommunications	0.42	-	**0.51**
Others	1.34	5.95	**22.92**
Total	100.00	100	**100.00**

Source: Prime Database

The maturity profile of issues in the private placement market ranged between 12 months to 240 months during 2007-08. The largest number of placements was for 36 months (156 placements) and 60 months (70 placements). A total of 38 offers had put option, while 72 offers had call option.

Unlike public issues of bonds, it is not mandatory for corporates issuing bonds in the private placement market to obtain and disclose credit rating from an approved credit rating agency. Rating is however required for listing. Of the 613 debt private placements deals during 2007-08, 579 issues (94%) went for credit rating while 34 did not.

Private placement accounted for 68.41 % of total resources mobilized by the corporate sector from the primary market (Table 2-12). For the year 2007-08 the share of public issues was 0.86%.

Table 2-12: Resources Raised by Corporate Sector

Year	Public Equity Issues (Rs.mn)	Debt Issues			Total Resource Mobilisation (2+5) (Rs.mn.)	Total Resource Mobilisation (US $ mn.)	Share (%) of Private placement in		Share (%) of Debt in Total Resource Mobilisation (5/6*100)
		Public Issues (Rs.mn)	Private Placements* (Rs.mn)	Total (3+4) (Rs. mn.)			Total Debt (4/5*100)	Total Resource Mobilisation (4/6*100)	
1	2	3	4	5	6		7	8	9
1995-96	88,820	29,400	100,350	129,750	218,570	-----	77.34	45.91	59.36
1996-97	46,710	69,770	183,910	253,680	300,390	-----	72.50	61.22	84.45
1997-98	11,320	19,290	309,830	329,120	340,450	-----	94.14	91.01	96.67
1998-99	5,040	74,070	387,480	461,550	466,580	10,996	83.95	83.05	98.92
1999-00	29,750	46,980	547,010	593,990	623,740	14,299	92.09	87.70	95.23
2000-01	24,790	41,390	524,335	565,725	590,520	12,661	92.68	88.79	95.80
2001-02	10,820	53,410	462,200	515,610	526,430	10,788	89.64	87.80	97.94
2002-03	10,390	46,930	484,236	531,166	541,556	11,353	91.16	89.42	98.08
2003-04	178,210	43,240	484,279	527,519	705,729	16,265	91.80	68.62	74.75
2004-05	214,320	40,950	551,838	592,788	807,108	18,448	93.09	68.37	73.45
2005-06	236,760	0	818,466	818,466	1,055,226	23,654	100.00	77.56	77.56
2006-07	249,930	0	923,552	923,552	1,173,482	26,921	100.00	78.70	78.70
2007-08	**522,190**	**10,000**	**1,152,661**	**1,162,661**	**1,684,851**	**42,153**	**99.14**	**68.41**	**69.01**
April-June 2008	**15,472**	**0**	**194680.70**	**194,681**	**210,153**	**4,893**	**100.00**	**92.64**	**92.64**

*Data from 2000-01 onwards include only issues with a tenor and put/call option of 1year or more, while data for earlier years include all privately placed debt issues irrespective of tenor.
Source: Prime Database

Corporate Debt

There is a preference for raising resources in the primary market through debt instruments and private placement of debt has emerged as the major route for raising resources.

During 2007-08, total resources raised by the corporate sector increased by 43.58% to Rs.1,684,851 million (US $ 42,153 million) as compared with gross mobilization of Rs.1,173,782 million (US$ 26,921 million). The equity route was used to raise 30.99% of the total resources while the 69.01% of the resources were raised through the debt issues.

Within the debt issue route, Rs.10,000 million (US $ 250.19) were raised through public issues while 99.14% of the resources (Rs.1,152,661 million or US $ 28,838 million) were raised through the private placement route. After a period of two years, the public issues route was tapped for raising resources while the private placement route saw an increase of nearly 40.83% during the same period.(Table 2-12).

Policy Debates[1]

Rating of IPOs

Since April 2007, SEBI has made it mandatory for all IPOs to be graded by rating agencies. After a company gets the SEBI's approval it is required to take a rating from atleast one of the SEBI registered credit rating agency. The issuer is required to disclose all the grades obtained by it for its IPO in the prospectus, abridged prospectus, issue advertisements and all other places where the issuer is advertising for the IPO. Expenses incurred for grading of IPO is borne by the issuer.

IPO Grading is designed to provide investors an independent, reliable and consistent assessment of the fundamentals of new Initial Public Offering.

However, there is a debate on whether it is possible to rate an IPO. It may not be possible to do so. Equity, by its very nature, is a risky investment, so a precise rating as in debt instruments is not possible. What the rating agencies have offered is an analysis of the prospectus. So far, companies made detailed disclosures in the prospectus, which an investor was expected to read before deciding whether or not to invest. It is now being argued that with too many IPOs crowding the market, investors need assistance in understanding what is on offer and do not have the time and expertise to go through the entire offer document.

The idea of providing for IPO rating is to provide investors with an independent view on an IPO. However, how independent this is would depend on the working of a particular agency. For instance CRISIL, which is pushing for the IPO rating business, has said that it will not comment on pricing, nor will it do a forensic audit. It has clarified that

"CRISIL IPO (Initial Public Offering) Grading is an opinion on the fundamentals of the graded issue that reflects CRISIL's independence and expertise. This opinion is expressed as a relative assessment in relation to other listed equity securities in India. The assessment is based on a grading exercise carried out by industry specialists from CRISIL Research. A CRISIL IPO Grade 5/5 indicates strong fundamentals and a CRISIL IPO Grade 1/5 indicates poor fundamentals. CRISIL IPO Grading reflects its assessment of the graded company's equity fundamentals as distinct from an assessment of debt fundamentals. A CRISIL IPO Grade should not be construed to mean a comment on the price of the graded security nor is it a recommendation to invest or not to invest in the graded security."

The issue according to some experts is that if the rating agency is only doing an analysis of information provided in the prospectus and is refusing to comment on the pricing of shares, is it helping investors take a decision? They opine that pricing is the most critical factor in evaluating IPOs because the shares of most companies are attractive at a price and by not taking pricing into consideration the usefulness of grading is diminished. Also, the agency is not questioning the correctness of information provided by companies. So, what it is offering is only what any knowledgeable investor can himself gather from the offer document.

[1] The views and approaches reflected in the policy debates are not necessarily of the NSE.

They further suggest that, even if it is taken that such a rating is helpful for investors who are not too knowledgeable to decipher relevant information from the prospectus, there is the issue of conflicts of interests arising out of the issuer paying for the rating. This concern exists for the entire rating scenario where the rating agency is paid by the rated entity.

All these issues need further debate and may be regulatory intervention to ensure that IPO grading serves the purpose for which it is intended in an effective manner.

Indian Depository Receipts

IDRs were introduced in 2004 based on a concept similar to that of GDRs and ADRs, with the objective of providing a platform to foreign companies to directly raise capital in India rather than take the route of ADRs/GDRs or equity/debt instruments in foreign markets. Initially, the eligibility norms for companies seeking to issue IDRs were quite stringent, viz. the issuer company should have pre-issue paid-up capital and free reserves of at least $100 million, an average turnover of $500 million during the three preceding financial years, profits for at least five years preceding the issue, dividends of not less than 10% in each year for the said period and a pre-issue debt-equity ratio of not more than 2:1.

These norms were relaxed in July, 2007, as detailed in the section on IDRs above. However, even after this relaxation, not a single foreign company has come to the Indian market for raising capital since IDRs were introduced in 2004. Some market experts are of the view that even the diluted eligibility criteria for companies to issue IDRs are still very high.

One of the other reasons attributed for the IDR market not picking up is the bar on FII's and Non-Resident Indians from investing in these securities. The existing SEBI guidelines for IDRs specify that at least 50 per cent of the issue should be subscribed by qualified institutional buyers (QIBs). FIIs are recognised as QIBs.

Another issue as per experts is that the Indian Income Tax Act, 1961, contains no specific provision for taxing any gains on sale of IDRs. Thus, the general rules on taxing of capital gains apply making it costly for a foreign company to raise capital from India.

All these issues plaguing this new instrument need to be addressed to have a vibrant market for IDRs.

Annexure 2-1: Details of Private Placements Issues in the equity segment by NSE- listed Companies during the period April 01, 2007 to June 30, 2008

Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
1	Aarvee Denims & Exports Limited	972,400	84	1.95	10.00	0.23	86.00	2.00
2	Aditya Birla Nuvo Limited	1,700,000	3413	79.46	10.00	0.23	2,007.45	46.74
3	Agro Dutch Industries Limited	750,000	21	0.48	10.00	0.23	27.50	0.64
4	Agro Dutch Industries Limited	1,580,000	43	1.01	10.00	0.23	27.50	0.64
5	Ahmednagar Forgings Ltd	1,700,000	408	9.50	10.00	0.23	240.00	5.59
6	Allcargo Global Logistics Limited	1,000	1	0.02	10.00	0.23	934.00	21.75
7	Alok Industries Limited	933,793	95	2.22	10.00	0.23	102.00	2.37
8	Alok Industries Limited	9,800,000	1000	23.27	10.00	0.23	102.00	2.37
9	Alps Industries Ltd.	2,000,000	130	3.03	10.00	0.23	65.00	1.51
10	Amtek Auto Ltd	7,000,000	3220	74.97	2.00	0.05	460.00	10.71
11	Amtek India Limited	5,500,000	963	22.41	2.00	0.05	175.00	4.07
12	Anant Raj Industries Limited	1,500,000	263	6.11	10.00	0.23	175.00	4.07
13	Anant Raj Industries Limited	5,560,222	6836	159.17	10.00	0.23	1,229.51	28.63
14	Anant Raj Industries Limited	1,504,000	902	21.01	10.00	0.23	600.00	13.97
15	ANG Auto Limited	507,500	38	0.89	10.00	0.23	75.00	1.75
16	ANG Auto Limited	567,500	43	0.99	10.00	0.23	75.00	1.75
17	Ankur Drugs And Pharma Limited	2,043,000	458	10.65	10.00	0.23	224.00	5.22
18	Ansal Housing and Construction Limited	500,000	33	0.77	10.00	0.23	66.50	1.55
19	Ansal Housing and Construction Limited	780,000	52	1.21	10.00	0.23	66.50	1.55
20	Ansal Housing and Construction Limited	330,000	34	0.80	10.00	0.23	104.50	2.43
21	Ansal Housing and Construction Limited	670,000	70	1.63	10.00	0.23	104.50	2.43
22	Apollo Hospitals Enterprise Ltd	7,047,119	4264	99.28	10.00	0.23	605.07	14.09
23	Apollo Tyres Ltd	9,000,000	264	6.14	1.00	0.02	29.30	0.68
24	Apollo Tyres Ltd	3,000,000	88	2.05	1.00	0.02	29.30	0.68
25	Apollo Tyres Ltd	12,420,000	364	8.47	1.00	0.02	29.30	0.68
26	Apollo Tyres Ltd	15,580,000	456	10.63	1.00	0.02	29.30	0.68
27	The Andhra Pradesh Paper Mills Limited	1,913,875	200	4.66	10.00	0.23	104.50	2.43
28	Aptech Limited	3,600,000	202	4.69	10.00	0.23	56.00	1.30
29	Aptech Limited	1,450,000	164	3.81	10.00	0.23	113.00	2.63
30	Aptech Limited	600,000	68	1.58	10.00	0.23	113.00	2.63
31	Archies Limited	250,000	40	0.93	10.00	0.23	159.50	3.71
32	Arihant Foundations & Housing Ltd	150,000	30	0.70	10.00	0.23	201.00	4.68
33	Arihant Foundations & Housing Ltd	850,000	171	3.98	10.00	0.23	201.00	4.68
34	Asian Electronics Ltd	570,000	137	3.19	10.00	0.23	240.00	5.59
35	Assam Company Limited	81,000,000	1883	43.85	1.00	0.02	23.25	0.54
36	Aurionpro Solutions Limited	1,030,000	260	6.04	10.00	0.23	252.00	5.87
37	Aurionpro Solutions Limited	629,663	159	3.69	10.00	0.23	252.00	5.87
38	Aurionpro Solutions Limited	105,337	27	0.62	10.00	0.23	252.00	5.87
39	Aurionpro Solutions Limited	225,000	83	1.94	10.00	0.23	370.00	8.61
40	Autoline Industries Limited	538,125	215	5.01	10.00	0.23	400.00	9.31
41	Autoline Industries Limited	50,000	20	0.47	10.00	0.23	403.50	9.39
42	Axis Bank Limited	30,695,129	19031	443.10	10.00	0.23	620.00	14.44
43	B.A.G Films and Media Limited	20,250,000	263	6.13	2.00	0.05	13.00	0.30
44	B.A.G Films and Media Limited	13,078,000	262	6.09	2.00	0.05	20.00	0.47
45	B.A.G Films and Media Limited	9,400,000	565	13.16	2.00	0.05	60.15	1.40

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Contd.

Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
46	Bajaj Auto Finance Ltd	1,758,600	721	16.79	10.00	0.23	410.00	9.55
47	Bajaj Auto Finance Ltd	1,247,940	512	11.91	10.00	0.23	410.00	9.55
48	Balrampur Chini Mills Ltd	7,300,000	672	15.64	1.00	0.02	92.00	2.14
49	Banco Products (I) Ltd	3,391,040	102	2.37	2.00	0.05	30.00	0.70
50	Bartronics India Limited	4,630,000	602	14.01	10.00	0.23	130.00	3.03
51	Bhartiya International Limited	500,000	50	1.16	10.00	0.23	100.00	2.33
52	Bhartiya International Limited	585,000	59	1.36	10.00	0.23	100.00	2.33
53	Bilpower Limited	608,100	59	1.37	10.00	0.23	97.00	2.26
54	Bilpower Limited	891,930	87	2.01	10.00	0.23	97.00	2.26
55	Bilpower Limited	1,499,970	145	3.39	10.00	0.23	97.00	2.26
56	BOC India Limited	36,200,000	5973	139.07	10.00	0.23	165.00	3.84
57	Bpl Limited	3,000,000	129	3.00	10.00	0.23	43.02	1.00
58	Bpl Limited	820,344	60	1.39	10.00	0.23	72.99	1.70
59	Cairn India Limited	113,000,000	25346	590.13	10.00	0.23	224.30	5.22
60	California Software Company Limited	555,556	50	1.16	10.00	0.23	90.00	2.10
61	California Software Company Limited	125,000	11	0.26	10.00	0.23	90.00	2.10
62	California Software Company Limited	2,393,600	239	5.57	10.00	0.23	100.00	2.33
63	California Software Company Limited	925,000	83	1.94	10.00	0.23	90.00	2.10
64	Cambridge Solutions Limited	6,158,986	1336	31.12	10.00	0.23	217.00	5.05
65	CESC Ltd.	2,000,000	433	10.09	10.00	0.23	216.68	5.04
66	Classic Diamonds (India) Limited	1,000,000	56	1.30	2.00	0.05	56.00	1.30
67	Clutch Auto Limited	1,520,000	179	4.18	10.00	0.23	118.00	2.75
68	Clutch Auto Limited	800,000	94	2.20	10.00	0.23	118.00	2.75
69	Color Chips Limited	330,000	4	0.09	10.00	0.23	12.22	0.28
70	Core Projects and Technologies Limited	1,350,000	38	0.88	2.00	0.05	28.00	0.65
71	City Union Bank Ltd.	1,200,000	203	4.72	10.00	0.23	169.00	3.93
72	City Union Bank Ltd.	1,800,000	304	7.09	10.00	0.23	169.15	3.94
73	City Union Bank Ltd.	5,000,000	950	22.12	10.00	0.23	190.00	4.42
74	Cubex Tubings Ltd.	825,000	40	0.92	10.00	0.23	48.00	1.12
75	Cubex Tubings Ltd.	1,170,000	56	1.31	10.00	0.23	48.00	1.12
76	Cybertech Systems And Software Ltd.	1,750,000	23	0.54	10.00	0.23	13.25	0.31
77	Development Credit Bank Limited	26,666,667	2800	65.19	10.00	0.23	105.00	2.44
78	Dcw Ltd	23,610,000	283	6.60	2.00	0.05	12.00	0.28
79	Dewan Housing Finance Corporation Ltd	4,000,000	400	9.31	10.00	0.23	100.00	2.33
80	Dewan Housing Finance Corporation Ltd	4,000,000	400	9.31	10.00	0.23	100.00	2.33
81	Dewan Housing Finance Corporation Ltd	7,065,456	530	12.34	10.00	0.23	75.00	1.75
82	Dewan Housing Finance Corporation Ltd	3,000,000	300	6.98	10.00	0.23	100.00	2.33
83	Dewan Housing Finance Corporation Ltd	3,000,000	300	6.98	10.00	0.23	100.00	2.33
84	Dewan Housing Finance Corporation Ltd	4,000,000	400	9.31	10.00	0.23	100.00	2.33
85	Dewan Housing Finance Corporation Ltd	4,000,000	400	9.31	10.00	0.23	100.00	2.33
86	Dwarikesh Sugar Industries Limited	750,000	75	1.75	10.00	0.23	100.20	2.33
87	Everest Kanto Cylinder Limited	3,548,027	887	20.65	2.00	0.05	250.00	5.82
88	Electrosteel Castings Ltd	12,550,000	550	12.80	1.00	0.02	43.80	1.02
89	Electrosteel Castings Ltd	2,030,000	138	3.21	1.00	0.02	68.00	1.58
90	Electrotherm (India) Ltd.	1,366,666	820	19.09	10.00	0.23	600.00	13.97
91	Electrotherm (India) Ltd.	475,000	285	6.64	10.00	0.23	600.00	13.97
92	Emco Limited	300,000	218	5.06	10.00	0.23	725.00	16.88

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Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
93	Era Infra Engineering Limited	3,765,000	508	11.83	10.00	0.23	135.00	3.14
94	Era Infra Engineering Limited	725,000	98	2.28	10.00	0.23	135.00	3.14
95	Escorts Ltd	3,611,610	303	7.05	10.00	0.23	83.79	1.95
96	Ess Dee Aluminium Limited	1,410,000	811	18.88	10.00	0.23	575.00	13.39
97	Four Soft Limited	153,846	10	0.23	5.00	0.12	65.00	1.51
98	Four Soft Limited	153,744	10	0.23	5.00	0.12	65.00	1.51
99	Four Soft Limited	153,846	10	0.23	5.00	0.12	65.00	1.51
100	Four Soft Limited	158,063	10	0.24	5.00	0.12	65.00	1.51
101	Four Soft Limited	153,204	10	0.23	5.00	0.12	65.00	1.51
102	Four Soft Limited	85,376	6	0.13	5.00	0.12	65.00	1.51
103	Four Soft Limited	1,062,102	80	1.85	5.00	0.12	75.00	1.75
104	Four Soft Limited	177,017	13	0.31	5.00	0.12	75.00	1.75
105	Four Soft Limited	531,051	40	0.93	5.00	0.12	75.00	1.75
106	Four Soft Limited	153,846	10	0.23	5.00	0.12	65.00	1.51
107	GANESH HOUSING CORPORATION LTD.	660,000	75	1.74	10.00	0.23	113.00	2.63
108	Garware Wall Ropes Ltd.	750,000	50	1.16	10.00	0.23	66.50	1.55
109	Garware Wall Ropes Ltd.	998,000	66	1.55	10.00	0.23	66.50	1.55
110	Garware Offshore Services Limited	311,100	22	0.52	10.00	0.23	72.00	1.68
111	Garware Offshore Services Limited	474,925	34	0.80	10.00	0.23	72.00	1.68
112	Garware Offshore Services Limited	463,900	46	1.08	10.00	0.23	100.00	2.33
113	Garware Offshore Services Limited	703,500	70	1.64	10.00	0.23	100.00	2.33
114	Garware Offshore Services Limited	352,500	35	0.82	10.00	0.23	100.00	2.33
115	Garware Offshore Services Limited	2,272,727	250	5.82	10.00	0.23	110.00	2.56
116	Garware Offshore Services Limited	280,100	28	0.65	10.00	0.23	100.00	2.33
117	GATI LIMITED	985,000	83	1.94	2.00	0.05	84.61	1.97
118	GATI LIMITED	3,086,185	261	6.08	2.00	0.05	84.61	1.97
119	GATI LIMITED	2,493,000	224	5.22	2.00	0.05	90.00	2.10
120	GATI LIMITED	4,135,000	372	8.66	2.00	0.05	90.00	2.10
121	Gemini Communication Limited	900,000	155	3.61	5.00	0.12	172.50	4.02
122	Genesys International Corporation Limited	575,000	11	0.25	10.00	0.23	19.00	0.44
123	Genus Power Infrastructures Limited	900,000	504	11.73	10.00	0.23	560.00	13.04
124	Genus Power Infrastructures Limited	600,000	336	7.82	10.00	0.23	560.00	13.04
125	Genus Power Infrastructures Limited	300,000	60	1.39	10.00	0.23	199.00	4.63
126	Genus Power Infrastructures Limited	700,000	139	3.24	10.00	0.23	199.00	4.63
127	Geodesic Limited	1,040,000	168	3.92	2.00	0.05	162.00	3.77
128	Geodesic Limited	306,296	81	1.89	2.00	0.05	265.00	6.17
129	Geojit Financial Services Limited	56,804,870	1477	34.39	1.00	0.02	26.00	0.61
130	GHCL Limited	2,500,000	163	3.79	10.00	0.23	65.10	1.52
131	Gitanjali Gems Limited	1,554,050	451	10.49	10.00	0.23	290.00	6.75
132	Golden Tobacco Limited	800,000	80	1.86	10.00	0.23	100.00	2.33
133	Goldiam International Limited	50,000	8	0.17	10.00	0.23	150.00	3.49
134	Goldstone Technologies Ltd.	1,900,000	40	0.93	10.00	0.23	21.00	0.49
135	Goldstone Technologies Ltd.	5,400,000	113	2.64	10.00	0.23	21.00	0.49
136	Goldstone Technologies Ltd.	35,918	4	0.10	10.00	0.23	122.00	2.84
137	Goldstone Technologies Ltd.	344,828	50	1.16	10.00	0.23	145.00	3.38
138	Granules India Limited	194,037	20	0.46	10.00	0.23	102.50	2.39
139	Granules India Limited	2,180,067	230	5.35	10.00	0.23	105.50	2.46

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Contd.

Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
140	Granules India Limited	2,211,200	233	5.43	10.00	0.23	105.50	2.46
141	Granules India Limited	2,057,578	243	5.66	10.00	0.23	118.10	2.75
142	Granules India Limited	1,000,180	103	2.39	10.00	0.23	102.50	2.39
143	Greenply Industries Ltd	145,000	17	0.38	5.00	0.12	114.00	2.65
144	Greenply Industries Ltd	400,000	46	1.06	5.00	0.12	114.00	2.65
145	Gujarat State Petronet Limited	18,738,000	1074	24.99	10.00	0.23	57.29	1.33
146	GTL Infrastructure Limited	33,741,060	1350	31.42	10.00	0.23	40.00	0.93
147	GTL Infrastructure Limited	1,700,000	68	1.58	10.00	0.23	40.00	0.93
148	Gujarat NRE Coke Ltd.	14,000,000	525	12.22	10.00	0.23	37.50	0.87
149	Gujarat NRE Coke Ltd.	2,500,000	300	6.98	10.00	0.23	120.00	2.79
150	Havells India Limited	4,160,000	2600	60.54	5.00	0.12	625.00	14.55
151	Housing Development Finance Corporation Ltd.	15,250,000	26383	614.26	10.00	0.23	1,730.00	40.28
152	Housing Development Finance Corporation Ltd.	2,750,000	4758	110.77	10.00	0.23	1,730.00	40.28
153	Hdfc Bank Ltd	13,582,000	13901	323.66	10.00	0.23	1,023.49	23.83
154	Heritage Foods (India) Ltd.	1,000,000	350	8.15	10.00	0.23	350.00	8.15
155	Heritage Foods (India) Ltd.	539,500	138	3.22	10.00	0.23	256.00	5.96
156	Hexaware Technologies Limited	10,555,700	1500	34.92	2.00	0.05	142.10	3.31
157	Himatsingka Seide Ltd	256,000	33	0.77	5.00	0.12	130.00	3.03
158	Himatsingka Seide Ltd	256,000	33	0.77	5.00	0.12	130.00	3.03
159	Himatsingka Seide Ltd	256,000	33	0.77	5.00	0.12	130.00	3.03
160	Himatsingka Seide Ltd	256,000	33	0.77	5.00	0.12	130.00	3.03
161	Hindalco Industries Ltd.	67,500,000	11736	273.25	1.00	0.02	173.87	4.05
162	Hindustan Dorr-Oliver Ltd	250,000	16	0.37	2.00	0.05	64.00	1.49
163	Hindustan Dorr-Oliver Ltd	1,000,000	64	1.49	2.00	0.05	64.00	1.49
164	Indiabulls Real Estate Limited	11,500,000	1587	36.95	2.00	0.05	138.00	3.21
165	Indiabulls Real Estate Limited	10,000,000	1151	26.81	2.00	0.05	115.13	2.68
166	Indo Count Industries Ltd	2,528,625	61	1.41	10.00	0.23	24.00	0.56
167	ICSA (India) Limited	220,000	88	2.05	10.00	0.23	400.00	9.31
168	ICSA (India) Limited	1,110,000	444	10.34	10.00	0.23	400.00	9.31
169	IG Petrochemicals Ltd.	4,500,000	135	3.14	10.00	0.23	30.00	0.70
170	Indiabulls Financial Services Limited	11,500,000	1863	43.38	2.00	0.05	162.00	3.77
171	Indiabulls Financial Services Limited	5,000,000	674	15.70	2.00	0.05	134.87	3.14
172	Indiabulls Financial Services Limited	5,000,000	674	15.70	2.00	0.05	134.87	3.14
173	India Infoline Limited	588,235	100	2.33	10.00	0.23	170.00	3.96
174	India Infoline Limited	2,600,000	442	10.29	10.00	0.23	170.00	3.96
175	India Infoline Limited	3,700,000	5550	129.22	10.00	0.23	1,500.00	34.92
176	IMP Powers Ltd	510,000	44	1.01	10.00	0.23	85.34	1.99
177	IMP Powers Ltd	279,938	16	0.36	10.00	0.23	55.63	1.30
178	IMP Powers Ltd	100,000	16	0.37	10.00	0.23	161.00	3.75
179	Ind-Swift Laboratories Ltd.	335,000	23	0.55	10.00	0.23	70.00	1.63
180	Ind-Swift Laboratories Ltd.	1,196,000	84	1.95	10.00	0.23	70.00	1.63
181	Infotech Enterprises Ltd	5,583,697	2010	46.80	5.00	0.12	360.00	8.38
182	ING Vysya Bank Limited	5,080,947	1575	36.67	10.00	0.23	310.00	7.22
183	IOL Netcom Limited	800,000	57	1.32	10.00	0.23	71.00	1.65
184	IOL Netcom Limited	700,000	67	1.55	10.00	0.23	95.00	2.21
185	Jai Corp Limited	5,649,740	5847	136.15	1.00	0.02	1,035.00	24.10
186	Jai Corp Limited	260,870	270	6.29	1.00	0.02	1,035.00	24.10

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Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
187	Jayant Agro Organics Ltd.	600,000	39	0.91	5.00	0.12	65.00	1.51
188	Jayant Agro Organics Ltd.	600,000	63	1.47	5.00	0.12	105.00	2.44
189	Jayant Agro Organics Ltd.	690,000	45	1.04	5.00	0.12	65.00	1.51
190	JBF Industries Ltd.	2,500,000	306	7.13	10.00	0.23	122.50	2.85
191	JIK Industries Limited	6,042,398	82	1.90	10.00	0.23	13.50	0.31
192	JIK Industries Limited	6,042,398	82	1.90	10.00	0.23	13.50	0.31
193	JIK Industries Limited	3,950,507	55	1.27	10.00	0.23	13.80	0.32
194	JIK Industries Limited	202,000	3	0.06	10.00	0.23	13.80	0.32
195	JIK Industries Limited	854,941	20	0.47	10.00	0.23	23.60	0.55
196	JIK Industries Limited	132,000	2	0.04	10.00	0.23	13.80	0.32
197	Jindal Saw Limited	2,412,542	1165	27.13	10.00	0.23	483.00	11.25
198	Jindal Drilling And Industries Limited	1,200,000	1536	35.76	10.00	0.23	1,280.00	29.80
199	Jain Irrigation Systems Limited	356,250	55	1.29	10.00	0.23	155.00	3.61
200	Jain Irrigation Systems Limited	411,250	64	1.48	10.00	0.23	155.00	3.61
201	Jain Irrigation Systems Limited	411,250	64	1.48	10.00	0.23	155.00	3.61
202	Jain Irrigation Systems Limited	356,250	55	1.29	10.00	0.23	155.00	3.61
203	Jain Irrigation Systems Limited	411,250	64	1.48	10.00	0.23	155.00	3.61
204	Jain Irrigation Systems Limited	356,250	55	1.29	10.00	0.23	155.00	3.61
205	Jain Irrigation Systems Limited	356,250	55	1.29	10.00	0.23	155.00	3.61
206	Jain Irrigation Systems Limited	411,250	64	1.48	10.00	0.23	155.00	3.61
207	Jain Irrigation Systems Limited	2,500,000	996	23.20	10.00	0.23	398.50	9.28
208	Jain Irrigation Systems Limited	1,102,600	527	12.27	10.00	0.23	478.15	11.13
209	JK Lakshmi Cement Limited	4,102,500	400	9.31	10.00	0.23	97.50	2.27
210	Jindal Stainless Limited	6,800,000	700	16.31	2.00	0.05	103.00	2.40
211	Jindal Stainless Limited	3,177,550	327	7.62	2.00	0.05	103.00	2.40
212	Jindal Stainless Limited	3,972,450	409	9.53	2.00	0.05	103.00	2.40
213	Jindal Stainless Limited	7,550,000	778	18.11	2.00	0.05	103.00	2.40
214	JSW Steel Limited	7,000,000	1,904	44.33	10	0.23	272.00	6.33
215	JSW Steel Limited	8,000,000	2,176	50.66	10	0.23	272.00	6.33
216	Jyoti Structures Ltd	1,300,000	53	1.23	2	0.05	40.50	0.94
217	Kanoria Chemicals & Industries Ltd	2,034,000	203	4.74	10	0.23	100.00	2.33
218	Kesar Enterprises Ltd.	451,600	44	1.02	10	0.23	97.00	2.26
219	Kingfisher Airlines Limited	1,963,640	295	6.86	10	0.23	150.00	3.49
220	Kingfisher Airlines Limited	35,222,231	5,459	127.11	10	0.23	155.00	3.61
221	Kinetic Motor Company Limited	1,500,000	98	2.27	10	0.23	65.00	1.51
222	Kinetic Motor Company Limited	1,000,000	65	1.51	10	0.23	65.00	1.51
223	Klg Systel Ltd.	535,000	140	3.25	10	0.23	261.00	6.08
224	Karuturi Networks Limited	4,000,000	349	8.12	10	0.23	87.24	2.03
225	Karuturi Networks Limited	300,000	50	1.15	10	0.23	165.00	3.84
226	Kopran Ltd.	675,550	30	0.71	10	0.23	44.83	1.04
227	Kopran Ltd.	1,244,168	40	0.93	10	0.23	32.15	0.75
228	KPIT Cummins Infosystems Limited	1,471,498	189	4.40	2	0.05	128.41	2.99
229	KPIT Cummins Infosystems Limited	1,510,877	197	4.58	2	0.05	130.09	3.03
230	K S Oils Limited	21,570,430	904	21.04	1	0.02	41.90	0.98
231	K S Oils Limited	23,000,000	414	9.64	1	0.02	18.00	0.42
232	Lakshmi Precision Screws Limited	900,000	91	2.12	10	0.23	101.00	2.35
233	Lakshmi Energy and Foods Limited	2,875,000	374	8.70	2	0.05	130.00	3.03

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Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
234	Lloyd Electric & Engineering Ltd	4,000,000	500	11.64	10	0.23	125.00	2.91
235	Logix Microsystems Limited	425,000	106	2.47	10	0.23	250.00	5.82
236	Lumax Industries Ltd	1,000,000	540	12.57	10	0.23	540.03	12.57
237	Lyka Labs Ltd	375,000	16	0.36	10	0.23	41.50	0.97
238	Lyka Labs Ltd	210,000	14	0.33	10	0.23	68.00	1.58
239	Lyka Labs Ltd	1,000,000	43	1.00	10	0.23	43.00	1.00
240	Lyka Labs Ltd	3,650,000	201	4.67	10	0.23	55.00	1.28
241	Lyka Labs Ltd	275,000	11	0.27	10	0.23	41.50	0.97
242	Lyka Labs Ltd	520,000	29	0.67	10	0.23	55.00	1.28
243	Mahindra & Mahindra Financial Services Limited	10,900,000	4,142	96.44	10	0.23	380.00	8.85
244	Magma Fincorp Limited	1,614,300	323	7.52	10	0.23	200.00	4.66
245	Mahindra Lifespace Developers Limited	2,919,000	1,535	35.75	10	0.23	526.00	12.25
246	Mahindra Lifespace Developers Limited	861,000	453	10.54	10	0.23	526.00	12.25
247	Maharashtra Seamless Ltd	1	0	0.00	5	0.12	675.00	15.72
248	Malwa Cotton Spg. Mills Ltd	584,032	28	0.65	10	0.23	48.00	1.12
249	Man Industries (India) Ltd.	900,000	90	2.10	10	0.23	100.00	2.33
250	Media Video Ltd.	2,650,000	80	1.85	10	0.23	30.00	0.70
251	Media Video Ltd.	1,733,000	52	1.21	10	0.23	30.00	0.70
252	Media Video Ltd.	1,781,000	53	1.24	10	0.23	30.00	0.70
253	Micro Technologies (India) Limited	428,400	28	0.66	10	0.23	66.00	1.54
254	Micro Technologies (India) Limited	250,000	63	1.46	10	0.23	250.40	5.83
255	Micro Technologies (India) Limited	200,000	50	1.17	10	0.23	250.40	5.83
256	Mercator Lines Limited	3,200,000	440	10.24	1	0.02	137.50	3.20
257	MSK Projects (India) Limited	4,450,000	374	8.70	10	0.23	84.00	1.96
258	Nagarjuna Construction Co. Ltd	20,246,900	4,100	95.46	2	0.05	202.50	4.71
259	Nagreeka Exports Ltd	541,000	34	0.78	10	0.23	62.25	1.45
260	Nagreeka Exports Ltd	437,000	27	0.63	10	0.23	62.25	1.45
261	Nagreeka Exports Limited	972,000	61	1.41	5	0.12	62.25	1.45
262	Nava Bharat Ventures Limited	912,000	87	2.02	2	0.05	95.00	2.21
263	Nava Bharat Ventures Limited	2,288,000	217	5.06	2	0.05	95.00	2.21
264	Neocure Therapeutics Ltd	2,996,500	39	0.91	10	0.23	13.00	0.30
265	Nicco Corporation Limited	45,454,545	200	4.66	2	0.05	4.40	0.10
266	Oracle Financial Services Software Limited	395,529	402	9.35	5	0.12	1,015.55	23.64
267	Onward Technologies Ltd	25,000	2	0.04	10	0.23	70.00	1.63
268	Opto Circuits (India) Limited	1,164,620	419	9.76	10	0.23	360.00	8.38
269	Pantaloon Retail (India) Ltd.	6,062,400	1,982	46.16	2	0.05	327.00	7.61
270	Pantaloon Retail (India) Ltd.	4,000,000	2,000	46.57	2	0.05	500.00	11.64
271	Pantaloon Retail (India) Ltd.	4,040,056	2,020	47.03	2	0.05	500.00	11.64
272	Paramount Communications Ltd	13,500,000	146	3.39	2	0.05	10.80	0.25
273	Parekh Aluminex Limited	1,600,000	184	4.28	10	0.23	115.00	2.68
274	Parekh Aluminex Limited	2,750,000	715	16.65	10	0.23	260.00	6.05
275	Patel Integrated Logistics Limited	1,800,000	133	3.10	10	0.23	74.00	1.72
276	Pearl Polymers Ltd	585,277	12	0.28	10	0.23	20.83	0.48
277	Phoenix Lamps Ltd	4,170,000	425	9.90	10	0.23	102.00	2.37
278	The Phoenix Mills Limited	1,985,756	3,177	73.97	10	0.23	1,600.00	37.25
279	Pitti Laminations Limited	240,000	29	0.67	10	0.23	120.00	2.79
280	Polyplex Corporation Ltd.	1,350,000	205	4.78	10	0.23	152.00	3.54

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Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
281	Prajay Engineers Syndicate Limited	67,000	12	0.29	10	0.23	183.00	4.26
282	Prajay Engineers Syndicate Limited	13,000	2	0.06	10	0.23	183.00	4.26
283	Prajay Engineers Syndicate Limited	622,000	39	0.92	10	0.23	63.50	1.48
284	Prajay Engineers Syndicate Limited	728,000	46	1.08	10	0.23	63.50	1.48
285	Prajay Engineers Syndicate Limited	10,000	2	0.04	10	0.23	183.00	4.26
286	Prajay Engineers Syndicate Limited	277,800	51	1.18	10	0.23	183.00	4.26
287	Prajay Engineers Syndicate Limited	257,740	47	1.10	10	0.23	183.00	4.26
288	Praj Industries Ltd	7,300,125	878	20.44	2	0.05	120.25	2.80
289	Prakash Industries Ltd	15,000,000	150	3.49	10	0.23	10.00	0.23
290	Prakash Industries Ltd	15,000,000	150	3.49	10	0.23	10.00	0.23
291	Prakash Industries Ltd	6,250,000	1,188	27.65	10	0.23	190.00	4.42
292	Precision Wires India Ltd	1,100,000	195	4.54	10	0.23	177.15	4.12
293	Premier Limited	1,986,674	78	1.82	10	0.23	39.43	0.92
294	Prime Securities Limited	1,870,000	514	11.97	5	0.12	275.00	6.40
295	Provogue (India) Limited	2,900,000	1,305	30.38	10	0.23	450.00	10.48
296	Provogue (India) Limited	900,000	405	9.43	10	0.23	450.00	10.48
297	Radico Khaitan Limited	5,768,276	920	21.42	2	0.05	159.50	3.71
298	Rana Sugars Ltd	2,200,000	68	1.59	10	0.23	31.00	0.72
299	Rane Holdings Limited	1,650,000	297	6.92	10	0.23	180.00	4.19
300	Reliance Capital Limited	21,700,000	4,948	115.19	10	0.23	228.00	5.31
301	Shree Renuka Sugars Limited	1,000,000	626	14.57	10	0.23	625.71	14.57
302	Ramkrishna Forgings Limited	129,310	15	0.35	10	0.23	116.00	2.70
303	Radha Madhav Corporation Limited	1,000,000	63	1.47	10	0.23	63.15	1.47
304	Radha Madhav Corporation Limited	57,390	3	0.06	10	0.23	45.00	1.05
305	Radha Madhav Corporation Limited	450,000	20	0.47	10	0.23	45.00	1.05
306	Radha Madhav Corporation Limited	3,150,000	268	6.23	10	0.23	85.00	1.98
307	Reliance Natural Resources Limited	130,000,000	3,335	77.64	5	0.12	25.65	0.60
308	Reliance Natural Resources Limited	160,000,000	4,104	95.55	5	0.12	25.65	0.60
309	Rpg Cables Ltd	1,000,000	46	1.08	10	0.23	46.30	1.08
310	Rpg Cables Ltd	764,583	37	0.85	10	0.23	48.00	1.12
311	Rpg Cables Ltd	1,275,000	59	1.37	10	0.23	46.30	1.08
312	Sabero Organics Gujarat Ltd	1,250,000	33	0.76	10	0.23	26.17	0.61
313	Sabero Organics Gujarat Ltd	1,849,685	26	0.61	10	0.23	14.12	0.33
314	Sabero Organics Gujarat Ltd	982,423	14	0.32	10	0.23	14.12	0.33
315	Sabero Organics Gujarat Ltd	867,577	12	0.29	10	0.23	14.12	0.33
316	Sagar Cements Ltd.	550,000	45	1.05	10	0.23	82.00	1.91
317	Sagar Cements Ltd.	1,000,000	190	4.42	10	0.23	190.00	4.42
318	Sagar Cements Ltd.	367,432	30	0.70	10	0.23	82.00	1.91
319	Sagar Cements Ltd.	267,568	22	0.51	10	0.23	82.00	1.91
320	Sagar Cements Ltd.	665,000	55	1.27	10	0.23	82.00	1.91
321	Saksoft Limited	140,000	33	0.76	10	0.23	233.65	5.44
322	Sangam (India) Ltd.	591,160	28	0.64	10	0.23	46.70	1.09
323	Sanghi Industries Limited	28,910,000	535	12.45	10	0.23	18.50	0.43
324	Sanghi Industries Limited	14,069,000	260	6.06	10	0.23	18.50	0.43
325	Sanghi Industries Limited	2,000,000	142	3.31	10	0.23	71.00	1.65
326	Sanghvi Movers Ltd.	1,287,000	180	4.20	2	0.05	140.00	3.26
327	Sanghvi Movers Ltd.	833,420	117	2.72	2	0.05	140.00	3.26

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Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
328	Sanghvi Movers Ltd.	879,580	123	2.87	2	0.05	140.00	3.26
329	South Asian Petrochem Limited	42,192,819	718	16.71	10	0.23	17.01	0.40
330	Sb&T International Ltd	450,000	36	0.84	10	0.23	80.00	1.86
331	Sb&T International Ltd	400,000	32	0.75	10	0.23	80.00	1.86
332	Sb&T International Ltd	100,000	10	0.22	10	0.23	95.00	2.21
333	Sharyans Resources Ltd.	1,000,000	205	4.77	10	0.23	205.00	4.77
334	Sharyans Resources Ltd.	2,340,000	538	12.53	10	0.23	230.00	5.36
335	Sharyans Resources Ltd.	1,000,000	205	4.77	10	0.23	205.00	4.77
336	Shiv-Vani Oil & Gas Exploration Services Limited	2,733,330	1,025	23.86	10	0.23	375.00	8.73
337	Shri Lakshmi Cotsyn Limited	700,000	90	2.10	10	0.23	129.00	3.00
338	Shri Lakshmi Cotsyn Limited	400,000	52	1.20	10	0.23	129.00	3.00
339	Shreyans Industries Ltd	3,000,000	40	0.93	10	0.23	13.25	0.31
340	Shreyans Industries Ltd	2,000,000	20	0.47	10	0.23	10.00	0.23
341	Sical Logistics Limited	5,250,000	1,166	27.14	10	0.23	222.00	5.17
342	Sical Logistics Limited	4,100,000	1,025	23.86	10	0.23	250.00	5.82
343	Simbhaoli Sugars Limited	746,000	32	0.74	10	0.23	42.55	0.99
344	Simplex Infrastructures Limited	200,000	80	1.87	2	0.05	401.00	9.34
345	Sintex Industries Ltd.	2,688,000	1,222	28.46	2	0.05	454.74	10.59
346	Sona Koyo Steering Systems Ltd.	4,616,535	310	7.21	2	0.05	67.10	1.56
347	Sona Koyo Steering Systems Ltd.	2,423,681	163	3.79	2	0.05	67.10	1.56
348	Spentex Industries Ltd	275,000	10	0.23	10	0.23	36.54	0.85
349	SREI Infrastructure Finance Limited	7,200,000	720	16.76	10	0.23	100.00	2.33
350	Shriram Transport Finance Co. Ltd.	9,100,000	1,019	23.73	10	0.23	112.00	2.61
351	Shriram Transport Finance Co. Ltd.	6,900,000	773	17.99	10	0.23	112.00	2.61
352	Shriram Transport Finance Co. Ltd.	12,000,000	3,600	83.82	10	0.23	300.00	6.98
353	Steel Strips Wheels Limited	1,255,856	213	4.97	10	0.23	170.00	3.96
354	Strides Arcolab Limited	50,000	17	0.40	10	0.23	342.10	7.97
355	Strides Arcolab Limited	4,000,000	1,600	37.25	10	0.23	400.00	9.31
356	Sti India Ltd	4,000,000	41	0.95	10	0.23	10.20	0.24
357	Sterlite Technologies Limited	2,800,000	280	6.52	5	0.12	100.00	2.33
358	Sterlite Technologies Limited	2,800,000	280	6.52	5	0.12	100.00	2.33
359	Subhash Projects & Marketing Ltd	5,493,876	1,346	31.34	2	0.05	245.00	5.70
360	Summit Securities Limited	4,300,000	114	2.65	10	0.23	26.43	0.62
361	Summit Securities Limited	6,572,000	174	4.04	10	0.23	26.43	0.62
362	Supreme Tex Mart Limited	3,870,000	148	3.45	5	0.12	38.26	0.89
363	Su-Raj Diamonds and Jewellery Limited	3,620,000	308	7.16	10	0.23	85.00	1.98
364	Surana Industries Limited	1,650,000	248	5.76	10	0.23	150.00	3.49
365	Suryajyoti Spinning Mills Limited	600,000	17	0.41	10	0.23	29.00	0.68
366	Suryajyoti Spinning Mills Limited	600,000	17	0.41	10	0.23	29.00	0.68
367	Surya Pharmaceutical Limited	1,598,750	112	2.61	10	0.23	70.00	1.63
368	Surya Pharmaceutical Limited	1,391,250	97	2.27	10	0.23	70.00	1.63
369	Tata Power Co. Ltd.	9,894,000	5,809	135.24	10	0.23	587.08	13.67
370	Tata Steel Limited	28,500,000	13,802	321.34	10	0.23	484.27	11.28
371	Tata Tea Ltd	2,810,000	2,041	47.53	10	0.23	726.45	16.91
372	Transport Corporation of India Limited	5,000,000	526	12.25	2	0.05	105.25	2.45
373	Techno Electric and Engineering Co Ltd	1,600,000	128	2.98	2	0.05	80.00	1.86
374	Tourism Finance Corpn Of India Ltd	13,297,648	638	14.86	10	0.23	48.00	1.12

Contd.

Contd.

Sr. No.	Company Name	Number of Securities issued	Funds Raised (Rs. mn.)	Funds Raised (US $ mn.)	Par Value (Rs.)	Par Value (US $.)	Issue Price (Rs.)	Issue Price (US $)
375	TIPS Industries Limited	2,470,000	111	2.59	10	0.23	45.00	1.05
376	Trent Ltd.	585,000	435	10.13	10	0.23	743.65	17.31
377	Television Eighteen India Ltd.	1,400,000	557	12.97	5	0.12	398.00	9.27
378	Television Eighteen India Ltd.	900,000	358	8.34	5	0.12	398.00	9.27
379	Television Eighteen India Ltd.	2,700,000	1,075	25.02	5	0.12	398.00	9.27
380	UFLEX Limited	2,600,000	455	10.59	10	0.23	175.00	4.07
381	UFLEX Limited	2,000,000	350	8.15	10	0.23	175.00	4.07
382	UFLEX Limited	8,735,000	1,791	41.69	10	0.23	205.00	4.77
383	United Phosphorous Limited	6,087,100	2,070	48.19	2	0.05	340.00	7.92
384	Usha Martin Limited	2,900,000	444	10.33	5	0.12	153.00	3.56
385	Usha Martin Limited	2,175,000	333	7.75	5	0.12	153.00	3.56
386	Usha Martin Limited	382,759	59	1.36	5	0.12	153.00	3.56
387	Usha Martin Limited	342,241	52	1.22	5	0.12	153.00	3.56
388	UTV Software Communications Limited	519,500	100	2.33	10	0.23	192.50	4.48
389	UTV Software Communications Limited	1,429,860	275	6.41	10	0.23	192.50	4.48
390	Vakrangee Softwares Limited	1,750,000	422	9.82	10	0.23	241.00	5.61
391	Vakrangee Softwares Limited	2,250,000	542	12.63	10	0.23	241.00	5.61
392	Valecha Engineering Limited	364,000	73	1.69	10	0.23	199.55	4.65
393	Valecha Engineering Limited	10,000	2	0.05	10	0.23	199.55	4.65
394	Valecha Engineering Limited	651,000	130	3.02	10	0.23	199.55	4.65
395	Valecha Engineering Limited	20,000	6	0.14	10	0.23	300.00	6.98
396	Varun Shipping Co. Ltd.	75,000	6	0.13	10	0.23	75.00	1.75
397	Varun Shipping Co. Ltd.	75,000	6	0.13	10	0.23	75.00	1.75
398	Varun Shipping Co. Ltd.	6,800,000	510	11.87	10	0.23	75.00	1.75
399	Varun Shipping Co. Ltd.	1,100,000	83	1.92	10	0.23	75.00	1.75
400	Varun Shipping Co. Ltd.	80,000	6	0.14	10	0.23	75.00	1.75
401	Varun Shipping Co. Ltd.	140,000	11	0.24	10	0.23	75.00	1.75
402	Varun Shipping Co. Ltd.	130,000	10	0.23	10	0.23	75.00	1.75
403	Varun Shipping Co. Ltd.	100,000	8	0.17	10	0.23	75.00	1.75
404	Viceroy Hotels Limited	812,500	81	1.89	10	0.23	100.00	2.33
405	Visu International Limited	2,500,000	44	1.02	10	0.23	17.50	0.41
406	VLS Finance Ltd.	100,000	40	0.93	10	0.23	400.00	9.31
407	Walchandnagar Industries Ltd	615,345	78	1.82	2	0.05	126.80	2.95
408	Welspun Gujarat Stahl Rohren Limited	8,548,706	684	15.94	5	0.12	80.07	1.86
409	Welspun Gujarat Stahl Rohren Limited	6,000,000	613	14.28	5	0.12	102.20	2.38
410	West Coast Paper Mills Ltd	2,617,650	223	5.18	2	0.05	85.00	1.98
411	Xpro India Limited	425,000	18	0.41	10	0.23	41.50	0.97
412	Xpro India Limited	500,000	21	0.48	10	0.23	41.50	0.97
413	Yes Bank Limited	14,700,000	3,308	77.01	10	0.23	225.00	5.24
414	Zicom Electronic Security Systems Limited	400,000	48	1.13	10	0.23	121.00	2.82
415	Zicom Electronic Security Systems Limited	500,000	95	2.21	10	0.23	190.00	4.42

Collective Investment Vehicles

Introduction

A collective investment vehicle is any entity that allows investors to pool their money and invest the pooled funds, rather than buying securities directly as individuals. The most common types of collective investment vehicles are mutual funds, exchange traded funds, collective investment schemes and venture capital funds. The Collective Investment Scheme is well established in many jurisdictions and now serves as an investment vehicle for a wide range of investment opportunities around the world.

The International Organization of Securities Commission (IOSCO) has, in its Report on Investment Management of the Technical Committee, defined the Collective Investment Schemes (CIS), as "an open ended collective investment scheme that issues redeemable units and invests primarily in transferable securities or money market instruments".

In India, there are three distinct categories of collective investment vehicles in operation namely, Mutual Funds (MFs), Collective Investment Schemes. (CIS) and Venture Capital Funds (VCFs) which mobilize resources from the market for investment purposes. The developments in the year 2007-08 with respect to the above three different CIVs are discussed in this chapter.

Mutual Funds

A mutual fund is a company that pools money from many investors and invests the money in stocks, bonds, short-term money-market instruments, other securities or assets, or some combination of these investments. Mutual Funds are essentially investment vehicles where people with similar investment objective come together to pool their money and then invest accordingly. SEBI defines mutual funds as 'A fund established in the form of a trust to raise money through the sale of units to the public or a section of the public under one or more schemes for investing in securities, including money market instruments or gold or gold related instruments or real estate assets. A Mutual Fund will have a fund manager who is responsible for investing the pooled money into specific securities (usually stocks and bonds). When you invest in a MF, you are buying shares (or portions) of the MF and become a shareholder of the fund. Mutual Funds (MFs) are considered a good route to invest and earn returns with reasonable safety. Some of the other major benefits of investing in them are:

- **Number of available options:** equity funds, debt funds, gilt funds and many others are available that cater to the different needs of an investor.
- **Diversification:** Mutual funds diversify the risk of the investor by investing in a basket of various stocks.
- **Managed by Skilled Professionals**: Investors who lacks time, the inclination or the skills to actively mange their investment risk in individual securities can delegate this role to the mutual funds which are managed by a team of professional fund managers who manages them with in-depth research inputs from investment analysts.
- **Liquidity:** When in need of liquidity, the money can be withdrawn or redeemed at the Net Asset Value related prices anytime, without much reduction in yield (unlike penalty on premature fixed deposit withdrawal). Some mutual funds however, charge exit loads for withdrawal within a specified period.

- **Well Regulated:** All investments have to be accounted for & decisions judiciously taken. SEBI acts as a true watchdog through regulations, designed to protect the investors' interests and impose penalties on the AMCs at fault.
- **Transparency:** Being under a regulatory framework, mutual funds have to disclose their holdings, investment pattern and all the information relating to the investment strategy, outlooks of the market and scheme related details to all investors frequently to ensure that transparency exists in the system.
- **Flexible, Affordable and a Low Cost affair:** Mutual Funds provide the benefit of cheap access to expensive stocks.
- **Tax benefits** : Mutual Funds (MFs) are undoubtedly an important product innovation in the financial field, as an instrument of raising capital from the wider public for corporate enterprise growth. Historically MFs originally called unit trusts in the United Kingdom, were invented for the mass of relatively small investors. Investors are issued 'units', thus for an investor, investments in MF imply buying shares (or portions) of the MF and becoming the shareholders of the fund.

Trends

In India, the Unit Trust of India (UTI), created in 1964 was the first MF. It enjoyed complete monopoly of MF business up to 1986. The entry of non- UTI, public sector mutual funds was set up by public sector banks and Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC) in 1987. SBI Mutual Fund was the first non- UTI Mutual Fund established in June 1987. The MF business was progressively opened to competition post 1988. This move gathered momentum after the adoption of economic liberalization in 1991 and the creation of SEBI in 1992. As of end March 2008, 40 MFs are registered with SEBI with an asset base of Rs.5,051,520 million.(US $ Rs.126,383 million).

In recent years, the MF schemes have diversified considerably thus expanding the basket of investment opportunities to suit the different needs of the investors. There are schemes that invest only in equities, in debt instruments or in both, in real estates, gold units etc. The objectives of the MFs have also widened, with the MFs investing in growth stocks, in stocks of a particular sector, the MFs are managed aggressively as well as passively. Thus, investors have a variety of options such as income funds, balanced funds, liquid funds, gilt funds, index funds, exchange traded funds, sectoral funds to deploy their savings.

Policy Developments

The policy and regulatory initiatives during the period April 2007 to June 2008 are discussed hereunder.

I. Investment by Mutual Funds in Overseas Securities.

With a view to providing greater opportunity to invest overseas, the extant ceiling on overseas investments by Mutual Funds, registered with Securities and Exchange Board of India (SEBI), was further enhanced in April 2008.

The aggregate ceiling for overseas investment by Mutual Funds, registered with SEBI, was increased from US $ 2 billion to US $ 3 billion during November 2006 and further increased to USD 4 billion during May 2007. In consultation with the Government of India and RBI, the aggregate ceiling for overseas investment was increased to USD 7 billion.

II. Standard warning in Advertisements by Mutual Funds

Clause 2 of the SEBI circular SEBI/MFD/CIR No.6/ 12357/03 dated June 26, 2003 issued certain guidelines for Advertisements of Mutual Funds through Audio-Visual media. In continuation to this circular SEBI has issued guidelines to all Mutual funds registered with SEBI and Association of Mutual Funds in India (AMFI) regarding Standard warning in Advertisements by Mutual Funds.

The rapid fire manner in which the standard warning "Mutual Fund investments are subject to market risks, read the offer document carefully before investing" is being recited in the audio visual and audio media renders it unintelligible to the viewer / listener. In order to improve the manner in which the said message is conveyed to the investors it has been decided in consultation with AMFI that with effect from April 1, 2008

i. The time for display and voice over of the standard warning would be enhanced to five seconds in audio visual advertisements.

ii. In case of audio advertisements the standard warning should be read in an easily understandable manner over a period of five seconds.

III. Entry Load for Mutual Funds

Irrespective of the mode of entry, investors purchasing mutual funds were required to pay the entry load. Keeping in view the interest of the investors it has been decided that no entry load would be charged for direct applications received by the Asset Management Company (AMC) i.e. applications received through internet, submitted to AMC or collection centre/ Investor Service Centre that are not routed through any distributor/agent/broker.

The revision would be effected from January 4, 2008 for existing schemes and new schemes launched. It would also be applicable to additional purchases done directly by the investor under the same folio and switch-in to a scheme from other schemes if such a transaction is done directly by the investor. Accordingly the AMCs would have to follow the provisions pertaining to informing the unitholders upon a change in load structure as per clause 3(d) of standard observations.

IV. Removal of Initial issue expenses

Under close-ended schemes initial issue expenses were charged to investors, there was no entry load. In order to bring in more transparency and clarity to the investors in terms of the expenses charged to them in closed-end schemes, the SEBI Board had decided that :

- There will not be any provision of charging initial issue expense and amortization of the same.
- All mutual fund schemes would have to meet the sales, marketing and other such expenses connected with sales and distribution of schemes from the entry load.

This revision would be effected to all mutual funds schemes launched after January 31, 2008.

V. Investments in Art Funds, funds/schemes launched by companies or any entity formed for the purpose

To regulate the securities market and protect the interest of investors SEBI had alerted investors regarding investments in Art Funds, funds/schemes launched by companies or any entity formed for this purpose.

From the analysis of the characteristics of 'art funds' these are 'collective investment schemes' as defined under section 11AA (2) of the SEBI Act, 1992. The schemes/funds have been launched / floated by these entities without obtaining a certificate of registration in accordance with the SEBI (Collective Investment Schemes) Regulations, 1999 (the Regulations).

In terms of section 12 (1B) of the SEBI Act, 1992 no "person" shall sponsor or cause to be sponsored or cause to be carried on a collective investment scheme unless he obtains a certificate of registration from the Board in accordance with the regulations. Regulation 3 of the Regulations permits only a 'Collective Investment Management Company' having certificate of registration from Board to launch collective investment scheme. Thus, only a company which has been granted certificate of registration by the Board in accordance with the Regulations can launch or sponsor a collective investment scheme. In other words, for a collective investment scheme to raise money from the public it is prerequisite that the entity must (a) be a company and (b) registered with SEBI as a Collective Investment Management Company.

Therefore, the launching/ floating of the 'art funds' or schemes without obtaining a certificate of registration from the Board in terms of the provisions of the Regulations amounts to violation of the provisions of section 12 read with section 11 and 11AA of the SEBI Act and the Regulations. For such violations, appropriate actions, civil and criminal, under the SEBI Act may be taken by SEBI against such funds/companies.

Market Design

The Mutual Fund (MF) industry is governed by SEBI (MF) Regulations, 1996, which lays the norms for the MF and its AMC. All MFs in India are constituted as trusts and are allowed to issue open-ended and close-ended schemes under a common legal structure. This section throws light on the market design of the MFs in India.

STRUCTURE OF MUTUAL FUNDS : A typical MF in India has the following constituents :	
Fund Sponsor	A 'sponsor' is a person who, acting alone or in combination with another corporate body, establishes a MF. The sponsor should have a sound financial track record of over five years, have a positive net worth in all the immediately preceding five years and integrity in all his business transactions. In case of an existing MF, such fund which is in the form of a trust and the trust deed has been approved by the Board; the sponsor should contribute at least 40% of the net worth of the AMC (provided that any person who holds 40 % or more of the net worth of an asset management company should be deemed to be a sponsor and would be required to fulfill the eligibility criteria specified in the SEBI regulations).
Trustees	The MF can either be managed by the Board of Trustees, which is a body of individuals, or by a Trust Company, which is a corporate body. Most of the funds in India are managed by a Board of Trustees. The trustees are appointed with the approval of SEBI. Two thirds of trustees are independent persons and are not associated with sponsors or be associated with them in any manner whatsoever. The trustees, being the primary guardians of the unit holders' funds and assets, have to be persons of high repute and integrity. The Trustees, however, do not directly manage the portfolio of MF. It is managed by the AMC as per the defined objectives, in accordance with trust deed and SEBI (MF) Regulations.
Asset Management Company	The AMC, appointed by the sponsor or the Trustees and approved by SEBI, acts like the investment manager of the Trust. The AMC should have at least a net worth of Rs. 10 crore. It functions under the supervision of its Board of Directors, Trustees and the SEBI. In the name of the Trust, AMC floats and manages different investment 'schemes' as per the SEBI Regulations and the Investment Management agreement signed with the Trustees. The regulations require non-interfering relationship between the fund sponsors, trustees, custodians and AMC.
Custodians.	A custodian is appointed for safe keeping the securities or gold or gold related instruments or other assets and participating in the clearing system through approved depository. Custodian also records information on stock splits and other corporate actions. No custodian in which the sponsor or its associate holds 50 % or more of the voting rights of the share capital of the custodian or where 50 % or more of the directors of the custodian represent the interest of the sponsor or its associates should act as custodian for a mutual fund constituted by the same sponsor or any of its associate or subsidiary company.
Registrar and Transfer agent	Registrar and transfer agent maintains record of the unitholders account. A fund may choose to hire an independent party registered with SEBI to provide such services or carryout these activities in-house. If the work relating to the transfer of units is processed in-house, the charges at competitive market rates may be debited to the scheme. The registrar and transfer agent forms the most vital interface between the unitholder and mutual fund. Most of the communication between these two parties takes place through registrar and transfer agent.
Distributors/ Agents	To send their products across the length and breadth of the country, mutual funds take the services of distributors/agents. Distributors comprise of banks, non-banking financial companies and other distribution companies.

TYPES OF MFs/SCHEMES : A wide variety of MFs/Schemes cater to different preferences of the investors based on their financial position, risk tolerance and return expectations.	
Funds by Structure/Tenor	
Open ended Scheme	An open-ended fund provides the investors with an easy entry and exit option at NAV, which is declared on a daily basis.
Close ended Scheme	In close-ended funds, the investors have to wait till maturity to redeem their units, however, an entry and exit is provided through mandatory listing of units on a stock exchange. The listing is to be done within six months of the close of the subscription.
Assured return schemes	Assures a specific return to the unit holders irrespective of performance of the scheme, which are fully guaranteed either by the sponsor or AMC.
Interval Fund	This kind of fund combines the features of open-ended and closed-ended schemes, making the fund open for sale or redemption during pre-determined intervals.
Funds by Investment objective/Asset class	
1. Securities	
Equity/Growth schemes	Growth/Equity Oriented Schemes provide capital appreciation over medium to long-term by investing a major part of their corpus in equities.
Debt or income schemes,	Income/Debt Oriented Schemes provide regular and steady income to investors by investing in fixed income securities such as bonds, corporate debentures, government securities and money market instruments. Hence, they are less risky compared to equity schemes.
Balanced schemes,	Balanced Funds provide both growth and regular income as they invest both in equities and fixed income securities in the specified proportion as indicated in their offer documents.
Money market schemes	Money Market or Liquid Funds provide easy liquidity and preserves capital, but generates moderate income. As they invest exclusively in safer short-term instruments such as, treasury bills, certificates of deposit, commercial paper, inter-bank call money, and government securities.
2. Physical Assets	Historically, the regulatory framework in India did not permit mutual funds to invest in physical assets. A significant change was made in January 2006, when SEBI permitted Gold exchange Traded Fund schemes (ETFs) that would invest in "gold and gold related instruments". Mutual Funds have also been permitted to invest in Real Estate since May 2008
3. Sector Funds	Sector funds invest in shares only of a specific sector such as Pharmaceuticals, software, energy and Banking etc.
4. Index Funds and Exchange Traded Funds	Index Funds replicate the portfolio of any particular index such as the Nifty 50 by investing in the same securities with the same weightage as in the index. The exchange traded index funds, as the name suggests, are traded on the stock exchanges. A single NAV is applicable for the day in the case of open-ended funds. Therefore a single price would be applicable for all investors who buy units of an open ended index fund on any particular day. Similarly, a single price would be received by all investors who exit form an open-end index fund on a particular day. Exchange Traded Funds are an innovation to traditional mutual funds as ETFs provide investors a fund that closely tracks the performance of an index with the ability to buy/sell on an intra-day basis. The unit price keeps changing during the day.
5. Funds of Funds	Funds of Funds is a scheme wherein the assets are invested in the existing schemes of mutual funds, for the earlier years the data was included in the other schemes.

Regulation of Funds

The MFs are regulated under the SEBI (MF) Regulations, 1996. All the MFs have to be registered with SEBI. The regulations have laid down a detailed procedure for launching of schemes, disclosures in the offer document, advertisements, listing and repurchase of close-ended schemes, offer period, transfer of units, investments, among others.

In addition, RBI also supervises the operations of bank-owned MFs. While SEBI regulates all market related and investor related activities of the bank/FI-owned funds, any issues concerning the ownership of the AMCs by banks falls under the regulatory ambit of the RBI.

Further, as the MFs, AMCs and corporate trustees are registered as companies under the Companies Act 1956, they have to comply with the provisions of the Companies Act.

Many close-ended schemes of the MFs are listed on one or more stock exchanges. Such schemes are, therefore, subject to the regulations of the concerned stock exchange(s) through the listing agreement between the fund and the stock exchange.

MFs, being Public Trusts are governed by the Indian Trust Act, 1882, are accountable to the office of the Public Trustee, which in turn reports to the Charity Commissioner, that enforces provisions of the Indian Trusts Act.

Constitution of a Mutual Fund , Asset Management Company

A mutual fund is constituted in the form of a trust and the instrument of trust should be in the form of a deed, duly registered under the provisions of the Indian Registration Act, 908 (16 of 1908), executed by the sponsor in favour of the trustees named in such an instrument. A trust is appointed with the approval of the Board. The sponsor or, if so authorised by the trust deed, the trustee, would appoint an asset management company, which has been approved by the Board.

The trustees and the asset management company should with prior approval SEBI enter into an investment management agreement which should contain clauses necessary for the purpose of making investments. (*Clauses are in the forth schedule chapter III SEBI Mutual Fund Regulation 1996)*.

Code Of Conduct

- Mutual fund schemes should not be organised, operated, managed or the portfolio of securities selected, in the interest of sponsors, directors of asset management companies, members of Board of trustees or directors of trustee company, associated persons as in the interest of special class of unit holders rather than in the interest of all classes of unit holders of the scheme.
- Trustees and asset management companies must ensure the dissemination to all unit holders of adequate, accurate, explicit and timely information fairly presented in a simple language about the investment policies, investment objectives, financial position and general affairs of the scheme.
- Trustees and asset management companies should avoid excessive concentration of business with broking firms, affiliates and also excessive holding of units in a scheme among a few investors.
- Trustees and asset management companies must avoid conflicts of interest in managing the affairs of the schemes and keep the interest of all unit holders paramount in all matters.
- Trustees and asset management companies must ensure scheme wise segregation of bank accounts and securities accounts.
- Trustees and asset management companies should carry out the business and invest in accordance with the investment objectives stated in the offer documents and take investment decision solely in the interest of unit holders.
- Trustees and asset management companies must not use any unethical means to sell; market or induce any investor to buy their schemes.
- Trustees and the asset management company should maintain high standards of integrity and fairness in all their dealings and in the conduct of their business.
- Trustees and the asset management company should render at all times high standards of service, exercise due diligence, ensure proper care and exercise independent professional judgment.
- The asset management company should not make any exaggerated statement, whether oral or written, either about their qualifications or capability to render investment management services or their achievements.
- The sponsor of the mutual fund, the trustees or the asset management company or any of their employees should not render any, directly or indirectly any investment advice about any security in the publicly accessible media, whether real-time or non-real-time, unless a disclosure of his interest including long or short position in the said security has been made, while rendering such advice.

SCHEMES OF MUTUAL FUNDS

All schemes of a Mutual Fund is launched by the AMC once it is approved by the trustees and a copy of the offer document has been filed with SEBI. The mutual fund should pay the minimum specified fee to the board while filing the offer document, the balance should be paid within such time as specified by SEBI. The offer document should contain disclosures which are adequate in order to enable investors to make informed investment decision. Advertisement in respect of every scheme should be in conformity with the Advertisement Code. The offer document and advertisement materials should not be misleading or contain any statement or opinion which are incorrect or false.

Listing of Close ended schemes *:* Every close ended scheme should be listed on a recognized stock exchange within six months form the closure of the subscription. Listing of close ended schemes is not mandatory if the said scheme provides for periodic repurchase facility to all the unit holders with restriction, if any, on the extent of such repurchase; or if the said scheme provides for monthly income or caters to special classed of persons like senor citizens, women, children, widows or physically handicapped or any special class of persons providing for repurchase of units at regular intervals; or if the details of such repurchase facility are clearly disclosed in the offer document; or if the said scheme opens for repurchase within a period of six months from the closure of subscription or if the said scheme is a capital protection oriented scheme.

Repurchase of Close ended Schemes

The asset management company may at its option repurchase or reissue the repurchased units of a close ended scheme. The units of a close ended scheme may be open for sale or redemption at fixed predetermined intervals if the maximum and minimum amount of sale or redemption of the units and the periodicity of such sale or redemption have been disclosed in the offer document. The units of close ended scheme can be converted into open-ended scheme if the offer document of such scheme discloses the option and the period of such conversion; or the unitholders are provided with an option to redeem their units in full and the initial issue expenses of the scheme have been amortised fully in accordance with the tenth schedule.

A close ended scheme should be fully redeemed at the end of the maturity period provided that a close-ended scheme may be allowed to be rolled over if the purpose, including the likely composition of assets immediately before the roll over, the net assets and net asset value of the scheme are disclosed to the unitholders and a copy of the same has been filed with SEBI. Further, such roll over would be permitted only in the case of those unit holders who express their consent in writing and the unit holders who do not opt for the roll over or have not given written consent will be allowed to redeem their holdings in full at net asset value based price.

Registration of Mutual Funds

In order to register with SEBI as a MF, the sponsor has the make and application to SEBI in Form A. The sponsor should fulfill the eligibility criteria as mentioned above. The Board may on receipt of all information decide the application and may register the mutual fund and grant a certificate in Form B on the applicant paying the registration fee. The registration granted to a mutual fund shall be subject to:

- The trustees, the sponsor, the asset management company and the custodian complying with the provisions of the regulations.
- The mutual fund would forwith inform the Board, if any information or particulars previously submitted to the Board was misleading or false or in any material change previously furnished which has a bearing on the registration granted by it and Payment of fees.

Advertisements Code by MFs

As per the MF regulations, advertisements should be truthful, fair and clear, and not contain any statement/promise/forecast, which is untrue or misleading. The sales literature should also contain information, which is included in the current advertisement. Assuming that the investors are not trained in legal or financial matters, it should be ensured that the advertisement is set forth in a clear, concise and understandable manner. Excessive use of technical/legal jargons or complex language, inclusion or exclusion of excessive details, which is likely to detract the investors, should be avoided. Also, standardized computations such as annual dividend on face value, annual yield on the purchase price and annual compounded rate of return should be used.

Investment Borrowing And Restrictions

- A mutual fund scheme should not invest more than 15% of its NAV in debt instruments issued by a single issuer which are rated not below investment grade by a credit rating agency authorised to carry out such activity under the Act. Such investment limit may be extended to 20% of the NAV of the scheme with the prior approval of the Board of Trustees and the Board of asset management company provided that such limit should not be applicable for investments in Government securities and money market instruments. Further, that investment within such limit can be made in mortgaged backed securitised debt which are rated not below investment grade by a credit rating agency registered with SEBI.
- A mutual fund scheme should not invest more than 10% of its NAV in unrated debt instruments issued by a single issuer and the total investment in such instruments should not exceed 25% of the NAV of the scheme. All such investments should be made with the prior approval of the Board of Trustees and the Board of asset management company.
- No mutual fund under all its schemes should own more than ten per cent of any company's paid up capital carrying voting rights.
- Transfers of investments from one scheme to another scheme in the same mutual fund should be allowed only if,

  such transfers are done at the prevailing market price for quoted instruments on spot basis. 'Spot basis' has the same meaning as specified by stock exchange for spot transactions.

  the securities so transferred should be in conformity with the investment objective of the scheme to which such transfer has been made.
- A scheme may invest in another scheme under the same asset management company or any other mutual fund without charging any fees, provided that aggregate inter scheme investment made by all schemes under the same management or in schemes under the management of any other asset management company should not exceed 5% of the net asset value of the mutual fund. However, this is not applicable to any fund of funds scheme.
- The initial issue expenses in respect of any scheme can not exceed six per cent of the funds raised under that scheme.
- Every mutual fund should buy and sell securities on the basis of deliveries and should in all cases of purchases, take delivery of relative securities and in all cases of sale, deliver the securities. Provided that a mutual fund may engage in short selling of securities in accordance with the framework relating to short selling and securities lending an borrowing specified by the Board. Provided that a mutual fund may enter into derivatives transactions in a recognised stock exchange, subject to the framework specified by the Board. Provided further that sale of government security already contracted for purchase shall be permitted in accordance with the guidelines issued by the Reserve Bank of India in this regard.
- Every mutual fund should get the securities purchased or transferred in the name of the mutual fund on account of the concerned scheme, wherever investments are intended to be of long-term nature.
- Pending deployment of funds of a scheme in securities in terms of investment objectives of the scheme a mutual fund can invest the funds of the scheme in short term deposits of scheduled commercial banks.
- No mutual fund [scheme] should make any investment in-

  any unlisted security of an associate or group company of the sponsor; or

  any security issued by way of private placement by an associate or group company of the sponsor; or

  the listed securities of group companies of the sponsor which is in excess of 25 per cent of the net assets.
- No scheme of a mutual fund should make any investment in any fund of funds scheme.
- No mutual fund scheme should invest more than 10 per cent of its NAV in the equity shares or equity related instruments of any company . Provided that, the limit of 10 per cent should not be applicable for investments in case of index fund or sector or industry specific scheme.
- A mutual fund scheme should not invest more than 5% of its NAV in the unlisted equity shares or equity related instruments in case of open ended scheme and 10% of its NAV in case of close ended scheme.
- A fund of funds scheme will be subject to the following investment restrictions:

  A fund of funds scheme should not invest in any other fund of funds scheme;

  A fund of funds scheme should not invest its assets other than in schemes of mutual funds, except to the extent of funds required for meeting the liquidity requirements for the purpose of repurchases or redemptions, as disclosed in the offer document of fund of funds scheme.

Market Outcome

Resource Mobilisation

The MF vehicle is quite popular with investors who are wary of directly investing in the securities market. The popularity of the MFs as an investment avenue is clearly visible from the data presented in (Table 3-1). The schemes of MFs of the commercial banks and the insurance companies, which entered the market in 1987, were well received. The boom continued into the 90's with liberalisation evoking positive response from the investors. The resource mobilisations by MFs remained steady during the period 1992-95 with annual gross mobilisation averaging Rs. 110,000 million per annum during the period. The MFs were however, hit severely by the bearish sentiments in the secondary market since October 1994. The years 1995-96 and 1996-97 witnessed net outflows of funds from MFs. The MF industry managed to mobilise modest sums during the next two financial years. It was during 1999-2000, that the MF industry witnessed a sharp turnaround with record resource mobilisation amounting to Rs. 199,530 million (US $ 4,574 million). Tax sops announced in the Union Budget 1999-00 and emergence of bullish trends in the secondary market fuelled the recovery. The year 2000-01 witnessed a slowdown once again with net resource mobilisation by all MFs taken together aggregating Rs. 111,350 million (US $ 2,387 million), which could be attributed to a slump in secondary market and increase in tax on income distributed by debt-oriented MFs. In 2002-03, the resource mobilization by all MFs together aggregated to a further low of Rs. 45,830 million (US $ 965 million) with UTI having a net outflow of Rs. 94,340 million (US $ 1,986 million).

Table 3-1: Resource Mobilisation by Mutual Funds

Year	Public Sector MFs			Private Sector MFs	Grand Total (Rs. mn.)	Grand Total (US $ mn.)
	Bank sponsored	FI sponsored	UTI			
1990-91	23,520	6,040	45,530	-	75,090	4,186
1991-92	21,400	4,270	86,850	-	112,520	4,598
1992-93	12,040	7,600	110,570	-	130,210	4,496
1993-94	1,480	2,390	92,970	15,600	112,440	3,584
1994-95	7,650	5,760	86,110	13,220	112,740	3,587
1995-96	1,130	2,350	-63,140	1,330	-58,330	-1,698
1996-97	60	1,370	-30,430	8,640	-20,360	-567
1997-98	2,370	2,030	28,750	7,490	40,640	1,028
1998-99	2,310	6,910	1700	25,190	36,110	851
1999-00	1,560	3,570	45,480	148,920	199,530	4,574
2000-01	--------------- 15,200 ----------		3,220	92,920	111,350	2,387
2001-02	--------------- 14,740 ----------		-72,840	129,470	71,370	1,463
2002-03	--------------- 18,950 ----------		-94,340	121,220	45,830	965
2003-04 *	--------------- 37,610 ----------		10,500*	428,730	476,840	10,990
2004-05	--------------- 16,670 -----------		25,970	425,450	468,090	10,699
2005-06	--------------------- 98,020 ---------------------			429,770	527,790	11,815
2006-07	--------------------- 149,470 ---------------------			790,380	939,850	21,561
2007-08P	--------------------- 204,980 ---------------------			1,333,040	1,538,020	38,479
2008-09 (April 08-June 08)	--------------------- 141,730 ---------------------			242,640	384,370	8,949

* Data for 2003-04 relate to UTI Mutual Fund for the period February 01, 2003 to March 31, 2004.
P: Provisional
Source: RBI.

The fiscal years 2003-04 and 2004-05 witnessed a sharp rise in the net resources mobilized compared to its previous years aggregating Rs. 476,840 million (US $ 10,990 million) and Rs. 468,090 million (US $ 10,699 million) respectively. This trend continued during the next fiscal 2006-07 which witnessed and additional 78 % of resources being mobilized. The financial year 2007-08 too witnessed an additional Rs. 598,170 million (US $ 16,918 million) resources being mobilized an increase of 64 % from the fiscal 2006-07 taking the total resources to Rs.1,538,020 million (US $ 38,479 million). The private sector contributed 87% of the total resources mobilized. Increasing resource mobilization is indicative of the growing confidence of investors in Mutual Funds as an investment avenue.

The fiscal 2007-08 saw huge investments in MFs. Saving of the house hold sector in MFs was 8.5 % in comparison with 5.20 % in 2006-07. At the end of March 2008 the number registered MFs with the SEBI stood at 40 and at the end of June 2008 the number increased to 41. As against 414 schemes in the year 2006-07, 612 new schemes were launched in 2007-08, of which 142 were open-ended and 470 close-ended schemes. This took the total number of schemes as at end-March 2008 to 956 against 756 as at end March 2007. Aggregate sales of all the 956 schemes amounted to Rs. 44,643,760 million (US $ 1,116,932 million). The redemptions during the year were at Rs. 43,105,750 million (US $ 1,078,453 million)

The bank sponsored MFs made gross mobilization of Rs. 4,895,940 million (US $ 122,490 million) accounting for 10.97 % of the total resource mobilization during 2007-08. In net terms, the bank sponsored MFs witnessed an inflow of Rs.183,200 million (US $ 4,583 million). The private sector MFs accounted for the bulk of mobilization by raising almost 84.68 % of gross resources mobilized by MF industry during 2007-08. These private sector MFs witnessed a net inflow of Rs. 1,333,020 million (US $ 33,351 million) in the same period as compared to Rs. 791,340 million (US $ 18,154 million) in 2006-07. The details of sales and redemptions of the different categories of Mutual funds for the fiscal 2007-08 and the first quarter of the fiscal 2008-09 are presented in (Table 3-2).

During 2007-08 the share of total sales in the open-ended schemes of Mutual funds was 97.15 % as compared with its share of 92.86 % in 2006-07. The close ended schemes in total funds raised , accounted for a share of 2.85 % during the current fiscal. During the fiscals 2005-06 and 2006-07 the close ended schemes have witnessed a growth of 131.77 % and 237.14 % respectively in raising funds. However in 2007-08 the sales in the close ended schemes have come down by 7.95 % as compared to the sales in the previous year. The open ended schemes registered a growth of 140.91% during 2007-08 in raising funds.

The open ended and close ended schemes together registered a net inflow of Rs.940,800 million (US $ 21,583 million) and Rs.1,538,010 million (US $ 38,479) million in 2006-07 and 2007-08 respectively. The details of the sales and redemptions of the Mutual funds based on the tenor for the last two fiscals and the first quarter of the fiscal 2008-09 are presented in (Table:3-3 A).

With the decline in interest rates during past few years, the liquid/money market schemes have become very popular among investors due to the attractive returns delivered by them. They account for almost three-fourths of the total gross resources mobilized. During the current fiscal the sale as well as repurchase has been the highest in case of these schemes resulting in a net inflow of Rs149,770 million (US $ 3,747 million). Almost 76.89 % of the funds have been raised through these schemes.

The Income/Debt Oriented Schemes which provide regular and steady income to investors by investing in fixed income securities such as bonds, corporate debentures, government securities and money market instruments are also popular among investors and account for 19.74 % of the total sales of all the schemes. This scheme has resulted in the highest net inflow of Rs.884,560 million (US $ 22,131 million) which accounts for 57.51 % of the net resources mobilized. The Growth scheme was the second highest and accounted for 26.52 % of the net resources raised followed by Liquid/Money Market - 9.74 %, ELSS - 4 % and balanced - 3.75 %. The other ETF scheme was the only category which witnessed an outflow of Rs.30,440 million (US $ 762 million). The Scheme-wise Resource Mobilisation by Mutual Funds for the last two fiscals and the first quarter of the fiscal 2008-09 are presented in (Table:3-3 B).

Table 3-2: Accretion of Funds with Mutual Funds

Category		2006-07				2007-08				Assets Under Management at the end		
		Sale (Rs. mn)	Purchase (Rs. mn)	Net (Rs. mn)	Net (US $. mn)	Sale (Rs. mn)	Purchase (Rs. mn)	Net (Rs. mn)	Net (US $. mn)	March-07 (Rs. mn)	March-08 (Rs. mn)	March-08 (US $ mn)
A	**Bank Sponsored**	**2,140,130**	**2,032,930**	**107,200**	**2,459**	**4,895,940**	**4,712,740**	**183,200**	**4,583**	**545,700**	**771,470**	**19,301**
	i. Joint Ventures - Predominantly Indian	525,120	489,420	35,700	819	1,433,240	1,356,450	76,790	1,921	168,070	286,690	7,173
	ii. Others	1,615,010	1,543,510	71,500	1,640	3,462,700	3,356,290	106,410	2,662	377,630	484,780	12,129
B	**Institutions**	**1,246,070**	**1,203,810**	**42,260**	**969**	**1,940,300**	**1,918,510**	**21,790**	**545**	**96,430**	**123,840**	**3,098**
C	**Private Sector (i+ii+iii+iv)**	**15,999,720**	**15,208,380**	**791,340**	**18,154**	**37,807,520**	**36,474,500**	**1,333,020**	**33,351**	**2,621,750**	**4,156,210**	**103,983**
	i. Indian	4,797,540	4,504,470	293,070	6,723	13,691,800	13,110,060	581,740	14,554	801,570	1,527,950	38,227
	ii. Joint Ventures- Predominately Indian	6,218,990	5,914,570	304,420	6,984	13,927,290	13,411,200	516,090	12,912	1,047,790	1,612,730	40,349
	iii. Joint Ventures - Predominately Foreign	4,983,190	4,789,340	193,850	4,447	8,365,380	8,193,870	171,510	4,291	772,390	712,590	17,828
	iv Foreign	--	--	--	--	1,823,050	1,759,370	63,680	1,593	--	302,940	7,579
Grand Total (A+B+C)		**19,385,920**	**18,445,120**	**940,800**	**21,583**	**44,643,760**	**43,105,750**	**1,538,010**	**38,479**	**3,263,880**	**5,051,520**	**126,383**

Accretion of Funds with Mutual Funds for the quarter April 2008-June 2008

Category		April 08- June 08				Assets Under Management at the end	
		Sale (Rs. mn)	Purchase (Rs. mn)	Net (Rs. mn)	Net (US $. mn)	June -08 (Rs. mn)	June -08 (US $ mn)
A	**Bank Sponsored**	**1,798,840**	**1,709,210**	**89,630**	2,087	**800,580**	**18,640**
	i. Joint Ventures - Predominantly Indian	699,770	647,440	52,330	1,218	314,560	7,324
	ii. Others	1,099,070	1,061,770	37,300	868	486,020	11,316
B	**Institutions**	**726,630**	**674,530**	**52,100**	**1,213**	**170,200**	**3,963**
C	**Private Sector (i+ii+iii+iv)**	**11,489,350**	**11,246,700**	**242,650**	**5,650**	**4,248,210**	**98,911**
	i. Indian	4,689,110	4,652,600	36,510	850	1,617,910	37,670
	ii. Joint Ventures- Predominately Indian	4,485,660	4,346,210	139,450	3,247	1,698,720	39,551
	iii. Joint Ventures - Predominately Foreign	1,671,850	1,618,930	52,920	1,232	561,250	13,068
	iv Foreign	642,730	628,960	13,770	321	370,330	8,622
Grand Total (A+B+C)		**14,014,820**	**13,630,440**	**384,380**	**8,949**	**5,218,990**	**121,513**

Source : AMFI Updates

Table 3-3A: Resource Mobilisation by Mutual Funds- based on the Tenor of the Scheme

Scheme	2006-07				2007-08				2008-09 (April 08- June 08)			
	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase
	(Rs. mn.)		(US $ mn.)		(Rs. mn.)		(US $ mn.)		(Rs. mn.)		(US $ mn.)	
Open-ended	18,002,570	17,762,620	412,998	407,493	43,370,420	42,035,880	1,085,074	1,051,686	13,514,940	12,964,460	314,667	301,850
Close-ended	1,383,350	682,500	31,735	15,657	1,273,340	1,069,870	31,857	26,767	310,350	512,220	7,226	11,926
Assured Return	--	--	--	--	--	--	--	--	--	--	--	--
Interval fund *	--	--	--	--	--	--	--	--	189,530	153,760	4,413	3,580
Total	**19,385,920**	**18,445,120**	**444,733**	**423,150**	**44,643,760**	**43,105,750**	**1,116,932**	**1,078,453**	**14,014,820**	**13,630,440**	**326,305**	**317,356**

* This category was introduced since April 2008, some of the existing schemes were reclassifiied

Source : AMFI Updates

Table 3-3B: Scheme-wise Resource Mobilisation by Mutual Funds

Scheme	2006-07				2007-08				2008-09 (April 2008-June 2008)			
	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)
	(Rs. mn.)			(US $ mn.)	(Rs. mn.)			(US $ mn.)	(Rs. mn.)			(US $ mn.)
Income	2,110,260	1,509,800	600,460	13,775	8,813,450	7,928,890	884,560	22,131	3,339,810	2,999,490	340,320	7,924
Growth	896,820	659,300	237,520	5,449	1,198,380	790,560	407,820	10,203	124,630	102,580	22,050	513
Balanced	44,730	27,620	17,110	393	114,880	57,200	57,680	1,443	11,380	9,320	2,060	48
Liquid/ Money Market	16,267,900	16,218,050	49,850	1,144	34,327,380	34,177,610	149,770	3,747	10,502,810	10,490,090	12,720	296
Gilt	18,530	28,160	(9,630)	(221)	31,800	27,460	4,340	109	3,320	10,270	(6,950)	(162)
ELSS	46,690	2,160	44,530	1,022	64,480	2,970	61,510	1,539	9,220	740	8,480	197
GOLD ETFs	990	30	960	22	4,330	1,560	2,770	69	1,050	60	990	23
Other ETFs *	--	--	--	--	89,060	119,500	(30,440)	(762)	13,910	16,130	(2,220)	(52)
Funds of Funds Investing Overseas **	--	--	--	--	--	--	--	--	8,690	1,760	6,930	161
Total	**19,385,920**	**18,445,120**	**940,800**	**21,583**	**44,643,760**	**43,105,750**	**1,538,010**	**38,479**	**14,014,820**	**13,630,440**	**384,380**	**8,949**

**This scheme was earlier classified as Growth Funds and included in that category*

*** Funds of Funds is a scheme wherein the assets are invested in the existing schemes of mutual funds, for the earlier years the data was included in the other schemes. Since the quarter data on Funds of Funds investing overseas is shown separately and data on Funds of Funds domestic is included in the other schemes.*

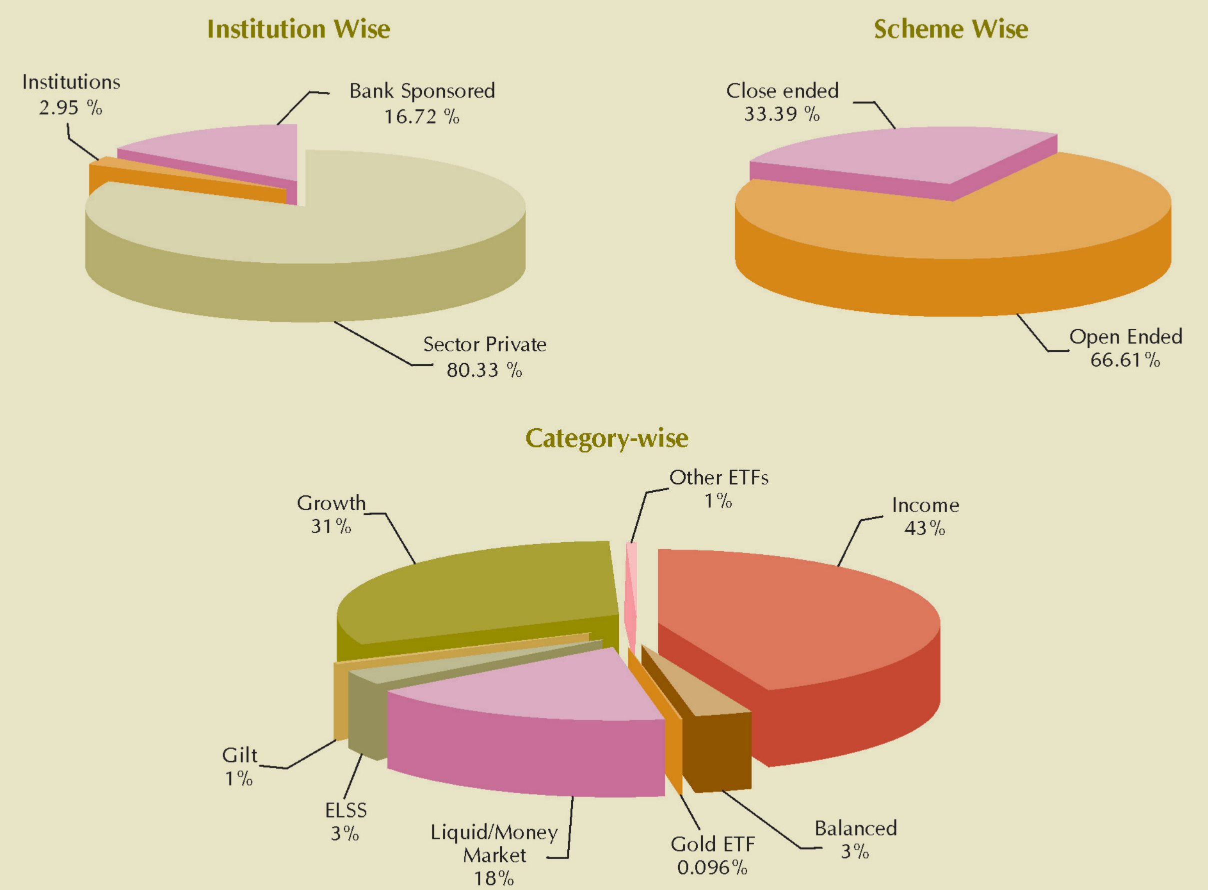
Source: AMFI Updates

Assets under Management

As on March 31, 2008, the MFs have managed assets of Rs. 5,051,520 million (US $ 126,383 million). As shown in Table 3-2, the share of private sector MFs in total assets rose to 82.28 % at end March 2008 from 80.33 % in March 2007. During the year, the assets under management of the private sector MFs increased by Rs. 1,534,460 million (US $ 38,390 million) amounting to an aggregate of Rs. 4,156,210 million (US $ 103,983 million).

The open ended schemes and the close ended schemes as at end-March 2008 accounted for 73.09 % and 26.91 % of total assets under management of MFs, respectively (Table 3-4) and (Chart 3-1)

Chart 3-1: Assets under Management at the end of March 2008



The income schemes accounted for 43.70 % of total assets under management as at end-March 2008, followed by growth schemes with 31.02 %. The liquid/money market schemes accounted for 17.70 %. of assets under management of MFs as at end-March 2008.

As on October 2008 there were 9 Mutual funds listed on NSE. The Total traded value these Mutual funds during the fiscal 2007-08 was Rs. 2,888 million (US $ 72 million). During the first quarter of the fiscal 2008-09 the traded value of the Mutual funds amounted to Rs.624 million (US $ 15 million).

Table 3-4: Assets under Management

Scheme	At the end of March 2008					At the end of June 2008					
	Open Ended	Close Ended	Total	Total	% to total	Open Ended	Close Ended	Interval Fund ***	Total	Total	% to total
	(Rs. mn.)			(US $ mn)		(Rs. mn.)				(US $ mn)	
Income	1,238,980	968,640	2,207,620	55,232	43.70	1,502,830	775,320	282,610	2,560,760	59,622	49.07
Growth	1,230,580	336,640	1,567,220	39,210	31.02	1,087,360	282,690	1,490	1,371,540	31,933	26.28
Balanced	135,910	26,920	162,830	4,074	3.22	118,370	22,610	–	140,980	3,282	2.70
Liquid/Money Market	894,020	--	894,020	22,367	17.70	922,390	--	–	922,390	21,476	17.67
Gilt	28,330	--	28,330	709	0.56	21,800	--	–	21,800	508	0.42
ELSS	133,270	26,930	160,200	4,008	3.17	119,750	24,680	–	144,430	3,363	2.77
Gold ETF	4,830	--	4,830	121	0.10	6,240	--	–	6,240	145	0.12
Other ETFs *	26,470	--	26,470	662	0.52	20,330	--	–	20,330	473	0.39
Funds of Funds Investing Overseas **	–	--	–	–	--	30,520	--	–	30,520	711	0.58
Total	**3,692,390**	**1,359,130**	**5,051,520**	**126,383**	**100.00**	**3,829,590**	**1,105,300**	**284,100**	**5,218,990**	**121,513**	**100.00**

* *This scheme was earlier classified as Growth Funds and included in that category*

** *Funds of Funds is a scheme wherein the assets are invested in the existing schemes of mutual funds, for the earlier years the data was included in the other schemes. Since the quarter data on Funds of Funds investing overseas is shown separately and data on Funds of Funds domestic is included in the other schemes.*

*** This category was introduced since April 2008.

Source: AMFI Updates.

Index Funds

Index funds are those funds which track the performance of an index. This is usually carried out by either investing in the shares comprising the index or by buying a sample of shares making up the index or a derivative based on the likely performance of the index. The value of the fund is linked to the chosen index so that if the index raises so will the value of the fund. Conversely, if the index falls so will the value of the fund. In the Indian context, the index funds attempt to copy the performance of the two main indices in the market viz., Nifty 50 or Sensex. This is done by investing in all the stocks that comprise the index in proportions equal to the weightage given to those stocks in the index. Benchmark Mutual Fund launched the Benchmark S&P CNX 500 Fund an open-end equity index fund on November 17,2008. This fund replicates the S&P CNX 500 index giving investors a broad exposure of Indian equity. Unlike a typical MF, index funds do not actively trade stocks throughout the year. They may at times hold their stocks for the full year even if there are changes in the composition of index; this reduces transaction costs. Index funds are considered, particularly, appropriate for conservative long term investors looking at moderate risk, moderate return arising out of a well-diversified portfolio. Since index funds are passively managed, the bias of the fund managers in stock selection is reduced, yet providing returns at par with the index. As of June 2008 there were 33 Index funds in India. Returns of Index funds have been shown in (Table 3-5). The returns are calculated as at the end of June 2008.

Table 3-5: Performance of Index Funds

Sr. No	Index Funds scheme wise	Benchmark Index	Returns		
			3 month	6 month	12 month
1	Birla Sun Life Index Fund - Dividend	Nifty 50	-22.88	-23.21	-12.10
2	Birla Sun Life Index Fund - Growth	Nifty 50	-22.88	-23.21	-12.10
3	Canara Robeco Nifty Index - Dividend	Nifty 50	-21.51	-21.38	-11.27
4	Canara Robeco Nifty Index - Growth	Nifty 50	-21.56	-21.39	-11.29
5	Franklin India Index Fund - NSE Nifty Plan - Dividend	Nifty 50	-21.63	-21.40	-11.66
6	Franklin India Index Fund - NSE Nifty Plan - Growth	Nifty 50	-21.63	-21.40	-11.66
7	HDFC Index Fund - Nifty Plan	Nifty 50	-22.01	-22.86	-17.42
8	ICICI Prudential Index Fund	Nifty 50	-21.92	-20.71	-9.76
9	ICICI Prudential Index Fund - IP - Dividend *	Nifty 50	-----	-----	-----
10	ICICI Prudential Index Fund - IP - Growth*	Nifty 50	-----	-----	-----
11	ING Nifty Plus Fund - Bonus	Nifty 50	-20.92	-21.26	-12.39
12	ING Nifty Plus Fund - Dividend	Nifty 50	-20.89	-21.21	-12.32
13	ING Nifty Plus Fund - Growth	Nifty 50	-20.92	-21.26	-12.39
14	LIC MF Index Fund - Nifty Plan - Dividend	Nifty 50	-21.75	-35.45	-28.99
15	LIC MF Index Fund - Nifty Plan - Growth	Nifty 50	-21.75	-22.35	-14.58
16	PRINCIPAL Index Fund - Dividend	Nifty 50	-21.58	-21.63	-11.71
17	PRINCIPAL Index Fund - Growth	Nifty 50	-21.58	-21.61	-11.53
18	SBI Magnum Index Fund - Dividend	Nifty 50	-21.13	-21.40	-12.49
19	SBI Magnum Index Fund - Growth	Nifty 50	-22.67	-23.05	-14.30
20	Tata Index Fund - Nifty Plan - Option A	Nifty 50	-21.67	-21.79	-12.39

Contd.

Contd.

Sr. No	Index Funds scheme wise	Benchmark Index	Returns		
			3 month	6 month	12 month
21	UTI Nifty Fund - Dividend	Nifty 50	-21.76	-60.05	-55.31
22	UTI Nifty Fund - Growth	Nifty 50	-21.76	-21.55	-12.23
23	Franklin India Index Fund - BSE Sensex Plan - Dividend	BSE Sensex	-21.89	-23.43	-12.61
24	Franklin India Index Fund - BSE Sensex Plan - Growth	BSE Sensex	-21.89	-23.43	-12.61
25	HDFC Index Fund - Sensex Plan	BSE Sensex	-22.16	-24.27	-17.85
26	HDFC Index Fund - Sensex Plus Plan	BSE Sensex	-20.46	-22.08	-13.66
27	LIC MF Index Fund - Sensex Advantage Plan - Div	BSE Sensex	-20.56	-28.67	-21.61
28	LIC MF Index Fund - Sensex Advantage Plan - Growth	BSE Sensex	-20.56	-28.67	-21.61
29	LIC MF Index Fund - Sensex Plan - Dividend	BSE Sensex	-26.57	-34.27	-29.12
30	LIC MF Index Fund - Sensex Plan - Growth	BSE Sensex	-26.57	-25.15	-19.30
31	Tata Index Fund - Sensex Plan - Option A	BSE Sensex	-21.76	-24.49	-15.71
32	UTI Master Index Fund - Dividend	BSE Sensex	-21.84	-23.73	-14.04
33	UTI Master Index Fund - Growth	BSE Sensex	-21.84	-23.73	-14.04

Returns are calculated as at the end of June 2008
* The NAV's are available only from December 2008.
Source : ICRA and NSE

Exchange Traded Funds

An Exchange Traded Fund (ETF) is a type of Investment Company whose investment objective is to achieve similar returns as in case of a particular market index. An ETF is similar to an index fund, but the ETFs can invest in either all of the securities or a representative sample of securities included in the index. Importantly, the ETFs offer a one-stop exposure to a diversified basket of securities that can be traded in real time like an individual stock. ETFs first came into existence in USA in 1993. Some of the popular ETFs are: SPDRs (Spiders) based on the S&P 500 Index, QQQs (Cubes) based on the Nasdaq-100 Index, iSHARES based on MSCI Indices, TRAHK (Tracks) based on the Hang Seng Index and DIAMONDs based on Dow Jones Industrial Average (DJIA).

Like index funds, ETFs are also passively managed funds wherein subscription/redemption of units implies exchange with underlying securities. These being exchange traded, units can be bought and sold directly on the exchange, hence, cost of distribution is much lower and the reach is wider. These savings are passed on to the investors in the form of lower costs. The structure of ETFs is such that it protects long-term investors from inflows and outflows of short-term investor. ETFs are highly flexible and can be used as a tool for gaining instant exposure to the equity markets.

The first ETFs in India, based on Nifty 50, was the Nifty Benchmark Exchange Traded Scheme (Nifty BeES). This was launched by Benchmark Mutual Fund in December 2001. It is bought and sold like any other stock on NSE. Over the years more and more ETFS have been introduced. As on October 2008 there were 15 Exchange trade funds in India, out of which 5 are gold exchange traded funds. The various ETFs are detailed below. The Total traded value of the 14 ETFs listed on NSE during the fiscal 2007-08 was Rs. 19,126 million (US $ 478 million). During the first quarter of the fiscal 2008-09 the traded value of the ETFs amounted to Rs.10,635 million (US $ 248 million). The details of the sales, redemptions and Assets under Management are presented in (Table 3-3 B and Table 3-4).

List of Exchange traded Funds in India.

Sr. No	Name of the ETF	Description
1	NiftyBeEs	The first ETF in India, based on Nifty 50, was the Nifty Benchmark Exchange Traded Scheme. This was launched by Benchmark Mutual Fund in December 2001
2	Junior Nifty BeES	This ETF is based on CNX Nifty Junior, launched on February 21, 2003
3	SUNDER	S&P CNX Nifty UTI Depository Receipts Schemes (SUNDER) is based on Nifty 50 ,
4	Bank BeES	(Bank Bees) Banking Index Benchmark Exchange Traded Scheme) tracks the CNX Bank Index, launched on May 27, 2004
5	Liquid BeES	Liquid BeES (Liquid Benchmark Exchange Traded Scheme) was launched by Benchmark Mutual Fund on May 27,2004 as a money market ETF in India which is incidentally the only money market ETF in the world. It invests in a basket of call money, short-term government securities and money market instruments of short and medium maturities.
6	SPICE	ICICI Mutual Fund also launched an ETF based on the BSE Sensex, SPICE (Sensex Prudential ICICI Exchange Traded Fund), trading for which started on January 13, 2003
7	KOTAKPSUBK	Kotak Mahindra Mutual Fund ETF is based on the CNX PSU Bank index. It was listed on November 16, 2007 on NSE
8	PSUBNKBEES	PSU Bank Benchmark Exchange Traded Scheme was launched by Benchmark Mutual Fund and tracks the CNX PSU Bank index. It was listed on November 01, 2007 on NSE
9	RELBANK	Reliance Mutual Fund -Banking Exchange Traded Fund is based on the CNX Bank index. It was listed on June 27, 2008 on NSE
10	QNIFTY	Quantum Index Fund -Exchange Traded Fund is an open Ended fund which tracks the movement of Nifty 50 and listed on July 18, 2008 on NSE.

Gold Exchange Traded Fund

A gold exchange traded fund unit is like a mutual fund unit whose underlying asset is Gold and is held in demat form. It is typically an Exchange traded Mutual Fund unit which is listed and traded on a stock exchange. Every gold ETF unit is representative of a definite quantum of pure gold and the traded price of the gold unit moves in tandem with the price of the actual gold metal. The GETF aims at providing returns which closely correspond to the returns provided by Gold. In India gold ETFs came about in the year 2007, the first being Gold Bees. This Gold fund was introduced in India by Benchmark Asset Management Company. It offers investors an innovative, cost-efficient and secure way to access the gold market. The units of Gold Benchmark Exchange Traded Scheme (GOLD Bees) ETF was listed on NSE on March 19, 2007. Thereafter UTI Mutual Fund launched the UTI Gold Exchange Traded Fund from March 1, 2007. UTI GOLD ETF-GOLDSHARE was listed on the NSE on April 17, 2007. Kotak Gold ETF (KOTAKGOLD) which was listed on NSE on August 08, 2007. Reliance Mutual Fund - Gold Exchange Traded Fund (RELGOLD) and Quantum Gold Fund -Exchange Traded Fund (ETF) QGOLDHALF were listed on June 27, 2008 and February 28, 2008 respectively. As on October 2008 there are 5 Gold ETFs in India.

Collective Investment Schemes

A Collective Investment Scheme (CIS) is any scheme or arrangement made or offered by any company, which pools the contributions, or payments made by the investors, and deploys the same. Despite the similarity between the CIS and MF regarding the pooling of savings and issuing of securities, they differ in their investment objective. While MF invests exclusively in securities, CIS confine their investment to plantations and real estate. Any entity proposing to operate as a Collective Investment Management Company (CIMC) has to apply for registration with SEBI.

Guidelines under CIS Regulations

The SEBI (CIS) Regulations specifically state that, without obtaining a certificate of registration from SEBI, no entity can carry on or sponsor or launch a CIS. The other regulations are as follows:

i. CIS should be set up and registered as a public company registered under the provisions of the Companies Act, 1956 and the memorandum of association should specify management of CIS as one of its objectives.

ii. The company at the time of registration as CIMC should have a minimum net worth of Rs. 5 crore (provided that at the time of making the application, the applicant should have a minimum net worth of Rs. 3 crore which should be increased to Rs. 5 crore within three years from the date of grant of registration).

iii. The offer document should disclose adequate information to enable investors to take informed decisions. The offer document should also indicate the maximum and minimum amount expected to be raised. No scheme should be kept open for subscription for a period more than 90 days.

iv. Each scheme has to obtain a rating from a recognized credit rating agency and the projects to be undertaken should be appraised by an appraising agency.

v. CIMC should obtain adequate insurance policy for protection of the scheme's property.

vi. Advertisements for each and every scheme have to conform to the SEBI's advertisement code.

vii. The CIMC should issue to the applicant whose application has been accepted, unit certificates as soon as possible but not later than six weeks from the date of closure of the subscription list.(provided if the units are issued through a depository, a receipt in lieu of unit certificate will be issued as per provisions of SEBI (Depositories and Participants) Regulations, 1996 and bye laws of the depository.

viii. The units of every scheme should be listed immediately after the date of allotment of units and not later than six weeks from the date of closure of the scheme on each of the stock exchanges as mentioned in the offer document.

ix. A scheme should be winded up on the expiry of duration specified in the scheme or on the accomplishment of the purpose of the scheme. A scheme may also be wound up on the happening of any such event which in the opinion of the trustee. The scheme can also be winded if unit holders of a scheme holding three-fourth of the nominal value of the unit capital pass a resolution to that effect or if in the opinion of the CIMC, the purpose of the scheme cannot be accomplished then through the approval of least three-fourth of the nominal value of the unit capital of the scheme. However, for winding up the schemes, SEBI approval has to be obtained. Further, if in SEBIs opinion the continuation of the scheme would be prejudical to the interest of unit holders then the scheme can be winded. When a scheme is to be winded up then the trustee should give notice disclosing the circumstances leading to such a decision in a daily newspaper having nationwide circulation and in the newspaper published in the language of the region where the Collective Investment Management Company is registered.

   The trustee should dispose of the assets of the scheme concerned in the best interest of the unit holders of that scheme. If the scheme is wound up because of happening of any event which in opinion of the trustee requires the scheme to be wound up then the proceeds realized should be utilized towards the discharge of such liabilities as are due and payable under the scheme and after making appropriate provision for meeting the expenses connected with such winding up, the balance should be paid to the unit holder in proportion to their unit holding.

   After completion of winding up, the trustees have to forward to SEBI and the unit holders the report on steps taken for realization of assets of the scheme, expenses for winding up and net assets available for distribution to the unit holders and a certificate from the auditors of the scheme certifying that all the assets of the scheme have been realized and the details of the distribution of the proceeds.

   The unclaimed money if any at the time of winding up should be kept separately in a bank account by the trustee for a period of three years for the purpose of meeting investors' claims and thereafter should be transferred to investor protection fund, as may be specified by SEBI.

x. The CIMC on behalf of the scheme should before the expiry of one month from the close of each quarter that is 31st March, 30th June, 30th September and 31st December publish its unaudited financial results in one daily newspaper having nation wide circulation and in the regional newspaper of the region where the head office of the CIMC is situated. (provided that the quarterly unaudited report should contain details as specified in the regulations and such other details as are necessary for the purpose of providing a true and fair view of the operations of the scheme.

As on March 31, 2008, there were no CIS entity registered with SEBI.

Venture Capital Funds

Venture Capital Fund (VCF) is a fund established in the form of a trust or a company including a body corporate having a dedicated pool of capital, raised in the specified manner and invested in Venture Capital Undertakings (VCUs). VCU is a domestic company whose shares is not listed on a stock exchange and is engaged in a business for providing services, production, or manufacture of article. A company or body corporate to carry on activities as a VCF has to obtain a certificate from SEBI and comply with the regulations prescribed in the SEBI (Venture Capital Regulations) 1996.

Regulations for VCFs

The salient features of the SEBI (Venture Capital Regulations), 1996 are as follows:

i. A venture capital fund may raise money from any investor whether India, Foreign or non-resident Indian by way of issue of units. No venture capital fund set up as a company or any scheme of a venture capital fund Set up as a trust should accept any investment from any investor which is less Rs. 0.5 million (5 lakh). However, this does not apply for investors who are employees or the principal officer or directors of the venture capital fund or directors of the trustee company or trustees where the venture capital fund has been established as a trust and the employees of the fund manager or asset management company. Each scheme launched or set up by a venture capital fund should have firm commitment from the investors for contribution of an amount of at least Rupees fifty million or (Rs.5 crore) before the start of the operations by the VCF.

ii. The VCF is eligible to participate in the IPO through book building route as Qualified Institutional Buyer.

iii. Automatic exemption is granted from open offer requirements in case of transfer of shares from VCFs in Foreign Venture Capital Investors (FVCIs) to promoters of a venture capital undertaking.

Investment Condition & Restrictions

i. The VCF has to disclose the investment strategy at the time of application for registration and should not have invested more than 25% corpus of the fund in any one VCU.

ii. Venture Capital Fund may invest in securities of foreign companies subject to such conditions or guidelines that may be stipulated or issued by the Reserve Bank of Indian and SEBI from time to time.

iii. A VCF, also, cannot invest in associated companies.

iv. Venture capital fund should make investment as enumerated below:

    i) At least 66.67 % of the investible funds should be invested in unlisted equity shares or equity linked instruments of venture capital undertakings.

    ii) Not more than 33.33 % of the investible funds may be invested by way of

    - subscription to Initial Public Offer (IPO) of a VCU whose shares are proposed to be listed.
    - debt or debt instrument of a VCU in which the VCF has already made an investment by way of equity.
    - Preferential allotment of equity shares of a listed company subject to lock-in-period of one year.

- The equity shares or equity linked instruments of a financially weak company or a sick industrial company whose shares are listed. For these regulations, a financially weak company or a sick industrial company means a company, which has at the end of the previous financial year accumulated losses, which has resulted in erosion of more than 50% but less than 100 % of its networth as at the beginning of the previous financial year.
- Special Purpose Vehicles (SPVs) which are created by a venture capital fund for the purpose of facilitating or promoting investment in accordance with these Regulations.

The investment conditions and restrictions stipulated above should be achieved by the venture capital fund by the end of its life cycle.

v. The venture capital fund should disclose the duration of life cycle of the fund.

Prohibition on Listing :

No venture capital fund is entitled to get its units listed on any recognized stock exchange till the expiry of three years from the date of the issuance of units by the venture capital fund.

As on March 31, 2008 the total count of VCFs and FVCIs stood at 106 and 97 respectively. Details of the VCFs & FVCIs are in (Table 3-6). All VCFs are now required to provide information pertaining to their venture capital activity for every quarter starting from the quarter ending December 2000.

Table 3-6: Industry wise Cumulative Investment details of SEBI Registered Venture Capital Funds (VCF) and Foreign Venture Capital Investors (FVCI)

Sectors of Economy	31-Mar-08				30-Jun-08			
	VCF	FVCI	Total	Total	VCF	FVCI	Total	Total
	(Rs.mn)			(US $ mn.)	(Rs.mn)			(US $ mn.)
Information technology	8,170	14,430	22,600	565	7,760	15,450	23,210	540
Telecommunications	1,880	8,930	10,810	270	1,910	8,660	10,570	246
Pharmaceuticals	8,220	5,980	14,200	355	7,810	6,420	14,230	331
Biotechnology	3,540	310	3,850	96	3,150	310	3,460	81
Media/ Entertainment	4,060	690	4,750	119	5,830	890	6,720	156
Services Sector	13,410	10,900	24,310	608	14,780	12,590	27,370	637
Industrial Products	8,110	7,480	15,590	390	10,200	8,230	18,430	429
Real Estate	50,540	22,310	72,850	1,823	48,620	14,240	62,860	1,464
Others	101,620	96,020	197,640	4,945	101,220	102,470	203,690	4,742
Total	**199,550 ***	**167,050**	**316,820**	**7,926**	**201,280 ***	**169,260**	**323,790**	**7,539**
	*includes Rs.49,780 million of FVCI investments in VCF				*includes Rs.46,570 million of FVCI investments in VCF			

Source : SEBI

Policy debates[1]

Unit holding pattern of mutual funds

According to SEBI published statistics, the details of unitholding pattern of mutual funds as on 31st March 2008, is as below:

CATEGORY	NUMBER OF INVESTORS ACCOUNTS	% TO TOTAL INVESTORS ACCOUNTS	NET ASSETS (RS.CRORE)	% TO TOTAL NET ASSETS
Individuals	42,014,713	96.86	187,463.98	36.93
NRIs	857,950	1.98	24,697.49	4.86
FIIs	902	0.00	8,400.51	1.65
Corporates/ Institutions/ Others	501,599	1.16	287,108.01	56.55
TOTAL	**43,375,164**	**100.00**	**507,669.99**	**100.00**

From the data above it is observed that while individual investors accounted for 97% of the total number of investors, their share in the net assets of the mutual funds was 37%. On the other hand, the corporates and institutions accounted for 57% of the net assets of the MF industry.

This pattern of unit holding raises apprehensions and concern that such a substantial share of institutional money in mutual funds, if pulled out abruptly, can cause instability in the markets and lead to possible lowering of confidence of retail investors. Further, MFs are typically investment vehicles for retail investors. This skewed pattern of unit holding in MFs in favour of corporates/institutions suggests that there is need for change in focus of MF industry in terms of targeting the untapped retail segment and discouraging institutional investments.

1 The views and approaches reflected in the policy debates are not necessarily of NSE.

Capital Market

Introduction

After the securities are issued in the primary market, they are traded in the secondary market by the investors. The stock exchanges along with a host of other intermediaries provide the necessary platform for trading in secondary market and also for clearing and settlement. The securities are traded, cleared and settled within the regulatory framework prescribed by the Exchanges and the SEBI. The Exchange has laid down rules and guidelines for various intermediaries with regards to the admission and Fee structure for Trading Members, listing criteria and listing fees for companies.

With the increased application of information technology, the trading platforms of stock exchanges are accessible from anywhere in the country through their trading terminals. The trading platforms are also accessible through internet. In a geographically widespread country like India, this has significantly expanded the reach of the exchanges.

Trading Mechanism

NSE was the first stock exchange in the country set up as a national exchange having nation-wide access with fully automated screen based trading system. Today, NSE has become the largest exchange in India with approximately 67% of the trading volumes on it. It is one of the very few exchanges in the world to also have adopted anonymous order matching system. The member punches in the NEAT system, the details of his order such as the quantities and prices of securities at which he desires to transact. The transaction is executed as soon as it finds a matching sale or buy order from a counter party. All the orders are electronically matched on a price/time priority basis. This has resulted in a considerable reduction in time spent, cost and risk of error, as well as frauds, resulting in improved operational efficiency. It allows for faster incorporation of price sensitive information into prevailing prices, as the market participants can see the full market on real time basis. This increases informational efficiency and makes the market more transparent. Further, the system allows a large number of participants, irrespective of their geographical locations, to trade with one another simultaneously, improving the depth and liquidity of the market. A single consolidated order book for each stock displays, on a real time basis, buy and sell orders originating from all over the country. The book stores only limit orders, which are orders to buy or sell shares at a stated quantity and stated price and are executed only if the price quantity conditions match. Thus, the NEAT system provides an Open Electronic Consolidated Limit Order Book (OECLOB), which ensures full anonymity by accepting orders, big or small, from members without revealing their identity. The NEAT System also provides equal access to all the investors. A perfect audit trail, which helps to resolve disputes by logging in the trade execution process in entirety, is also provided. Technology was 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 .

Trends

All the 19 Stock Exchanges in India have been demutualised under the Corporatisation and Demutualisation Scheme of SEBI. More than 99 % of the turnover however is mainly from NSE and BSE. The coherent contribution of the Cash Market segment in the Indian Securities Market continued during the fiscal 2007-08. This segment witnessed a phenomenal growth of 76.80 % in the trading volumes (BSE and NSE) in comparison to the previous fiscal. The Nifty and Sensex posted a year on year returns of 19.68 % and 23.89 % respectively.

Policy Developments

Over the past years the Government and the market regulators have taken several policy measures to improve the operations of the stock exchanges and market intermediaries. The measures are aimed at improving the market infrastructure and upgradation of risk containment, so as to protect the interest of the investors. The recent policy developments (April 2008 to August 2008) pertaining to trading of securities are enumerated below.

I Short selling and securities lending and borrowing

Pursuant to the recommendations of the Secondary Market Advisory Committee (SMAC) of SEBI and the decision of the SEBI Board, it was decided to permit all classes of investors to short sell. Accordingly the broad frame work for the same was provided vide SEBI circular ***SEBI/ MRD/DoP/SE/Dep/Cir- 14 /2007 dated December 20, 2007.***

It was also decided in consultation with Government of India and SEBI, to permit Foreign Institutional Investors (FIIs) registered with SEBI and sub-accounts of FIIs to short sell, lend and borrow equity shares of Indian companies. Short selling, lending and borrowing of equity shares of Indian companies would be subject to such conditions as may be prescribed in that behalf by the Reserve Bank and the SEBI / other regulatory agencies from time to time.

The above permission would be subjected to the following conditions:

(i) The FII participation in short selling as well as borrowing / lending of equity shares would be subject to the current FDI policy and short selling of equity shares by FIIs would not be permitted for equity shares which are in the ban list and / or caution list of Reserve Bank.

(ii) Borrowing of equity shares by FIIs would only be for the purpose of delivery into short sale.

(iii) The margin / collateral would be maintained by FIIs only in the form of cash. No interest would be paid to the FII on such margin/collateral.

The designated custodian banks would separately report all transactions pertaining to short selling of equity shares and lending and borrowing of equity shares by FIIs in their daily reporting with a suitable remark (short sold / lent / borrowed equity shares) for the purpose of monitoring by RBI

Thereafter it was decided to operationalise Short selling and securities lending and borrowing from Monday, April 21, 2008.

II. Introduction of Direct Market Access facility

Direct Market Access (DMA) is a facility which allows brokers to offer clients direct access to the exchange trading system through the broker's infrastructure without manual intervention by the broker. Some of the advantages offered by DMA are direct control of clients over orders, faster execution of client orders, reduced risk of errors associated with manual order entry, greater transparency, increased liquidity, lower impact costs for large orders, better audit trails and better use of hedging and arbitrage opportunities through the use of decision support tools / algorithms for trading. While ensuring conformity with the provisions of the Securities Contract (Regulations) Act, 1956 (42 of 1956), Stock Exchanges are required facilitate Direct Market Access for investors subject to the following conditions:

1. Application for Direct Market Access (DMA) facility

- Brokers interested to offer DMA facility would be required to apply to the respective stock exchanges giving details of the software and systems proposed to be used, which should be duly certified by a Security Auditor as reliable.
- The stock exchange would have to grant approval or reject the application as the case may be, and communicate its decision to the member within 30 calendar days of the date of completed application submitted to the exchange.

- The stock exchange, before giving permission to brokers to offer DMA facility would have to ensure the fulfillment of the applicable conditions

2. Operational specifications

- All DMA orders are required to be routed to the exchange trading system through the broker's trading system. The broker's server routing DMA orders to the exchange trading system should be located in India.
- The broker are required to ensure sound audit trail for all DMA orders and trades, and be able to provide identification of actual user-id for all such orders and trades. The audit trail data should available for at least 5 years.
- Exchanges should be able to identify and distinguish DMA orders and trades from other orders and trades. Exchanges should maintain statistical data on DMA trades and provide information on the same to SEBI on a need basis.
- The DMA system should have sufficient security features including password protection for the user ID, automatic expiry of passwords at the end of a reasonable duration, and reinitialisation of access on entering fresh passwords.
- Brokers would be required to follow the similar logic/priorities used by the Exchange to treat DMA client orders. Brokers would have to maintain all activities/ alerts log with audit trail facility. The DMA Server should have internally generated unique numbering for all such client order/trades.
- A systems audit of the DMA systems and software should be periodically carried out by the broker as may be specified by the exchange and certificate in this regard should be submitted to the exchange.
- The exchanges and brokers would have to provide for adequate systems and procedures to handle the DMA trades.

3. Client Authorization and Broker – Client agreement

- Exchanges should specify from time to time the categories of investors to whom the DMA facility can be extended. Initially, the permission is restricted to institutional clients.
- Brokers should specifically authorize clients for providing DMA facility after fulfilling Know Your Client requirements and carrying out due diligence regarding clients' credit worthiness, risk taking ability, track record of compliance and financial soundness.
- Brokers should ensure that only those clients who are deemed fit and proper for this facility are allowed access to the DMA facility. Brokers should maintain proper records of such due diligence. Individual users at the client end would also be authorized by the broker based on minimum criteria. The records of user details, user-id and such authorization would be maintained by the broker. Details of all user-ids activated for DMA should be provided by the broker to the exchange.
- The broker should enter into a specific agreement with the clients for whom they permit DMA facility. This agreement should include the following safeguards:

  a) The client shall use the DMA facility only to execute his own trades and shall not use it for transactions on behalf of any other person / entity.

  b) Electronic/Automated Risk management at the broker's level before release of order to the Exchange system. The client should agree to be bound by the various limits that the broker should impose for usage of the DMA facility.

  c) Right to withdraw DMA facility if the limits set up are breached or for any other such concerns

  d) Withdrawal of DMA facility on account of any misuse or on instructions from SEBI/Exchange.

Exchanges should prepare a model agreement for this purpose. The broker's agreement with clients should not have any clause that is less stringent/contrary to the conditions stipulated in the model agreement.

4. *Risk Management*

The broker should ensure that trading limits/ exposure limits/ position limits are set for all DMA clients based on risk assessment, credit quality and available margins of the client. The broker system should have appropriate authority levels to ensure that the limits can be set up only by persons authorized by the risk / compliance manager.

The broker should ensure that all DMA orders are routed through electronic/automated risk management systems of the broker to carry out appropriate validations of all risk parameters including Quantity Limits, Price Range Checks, Order Value, and Credit Checks before the orders are released to the Exchange. All DMA orders should be subjected to the following limits:

a) Order quantity / order value limit in terms of price and quantity specified for the client.

b) All the position limits which are specified in the derivatives segment as applicable.

c) Net position that can be outstanding so as to fully cover the risk emanating from the trades with the available margins of the specific client.

d) Appropriate limits for securities which are subject to FII limits as specified by RBI.

The broker may provide for additional risk management parameters as they may consider appropriate.

5. *Broker to be liable for DMA trades*

The broker should be fully responsible and liable for all orders emanating through their DMA systems. It shall be the responsibility of the broker to ensure that only clients who fulfill the eligibility criteria are permitted to use the DMA facility

6. *Cross Trades*

Brokers using DMA facility for routing client orders should not be allowed to cross trades of their clients with each other. All orders must be offered to the market for matching.

7. *Other legal provisions*

In addition to the requirements mentioned above, all existing obligations of the broker as per current regulations and circulars should continue without change. Exchanges may also like to specify additional safeguards / conditions as they may deem fit for allowing DMA facilities to their brokers.

Market Design[1€]

Stock Exchanges

At the end of March 2008, there were 19 *stock exchanges* registered with SEBI having a total of 8,517 registered brokers and 43,874 registered sub-brokers trading on them (Annexure 4-1).

The stock exchanges need to be recognized under the Securities Contracts (Regulation) Act, 1956. There are 19 stock exchanges in India. The Securities and Exchange Board of India (SEBI), has approved and notified the Corporatisation and Demutualisation Scheme of 19 Stock Exchanges. BSE has successfully completed the process of Demutualisation in terms of The BSE (Corporatisation and Demutualisation) Scheme, 2005 on May 16, 2007. NSE since inception has adopted a demutualised structure and its model of demutualization compares well with the international models of demutualised stock exchanges as seen from (Table 4-1).

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

Table 4-1: Comparison of the NSE Model and the International Models of Demutualised Stock Exchanges

Comparators	International Model	NSE Model
Legal Structure	Company	Company
For Profit / Not for Profit	For Profit Company	For Profit Company
Ownership Structure	Owned by Shareholders which includes brokers	Owned by Shareholders which are financial institutions which also have broking firms as subsidiaries.
Listing	Several stock exchanges are listed on themselves after Initial Public Offer.	Not a listed company. No Initial Public Offer made.
Ceilings on shareholding	Mostly 5% of voting rights for a single shareholder	No ceiling
Segregation of ownership, trading rights and management	These are segregated. To become a member of the demutualised stock exchange, it is not necessary to own a share in the company. Thus, members may or may not be shareholders and members who own shares may sell off their trading rights and all shareholders are not necessarily members.	These are segregated. The trading rights and ownership are segregated. The broking firms are not shareholders.
Board Structure	The Governing Board comprises of directors who are elected by shareholders. Some of the directors are brokers but majority do not have stock broking background.	The Board comprises of representatives of shareholders, academics, chartered accountants, legal experts etc. Of these, 3 directors are nominated by SEBI and 3 directors are public representatives approved by SEBI.
Fiscal benefits	As mutual entities, stock exchanges enjoyed fiscal benefits prior to demutualisation, but when converted into for profit companies these are taxed.	NSE was set up as a demutualised for profit company and is taxed. So the question of fiscal benefit prior to demutualisation does not arise.
Transfer of assets	Assets were transferred from the mutual entity to the for-profit demutualised company and shares were given to the members in lieu of the ownership in the old entity. There was no cash consideration paid. Since an Initial Public Offer (IPO) was also made in many cases, the valuation of the shares were done by the market and no separate valuation exercise was required as for example in the case of LSE where a bonus issue was made.	The question of transfer of assets did not arise because NSE was set up by the institutions as a demutualised company itself.
Enactment of legislation to give effect to demutualisation	In several countries a separate legislation was necessary as in the case of Australia, Hong Kong, Toronto and Singapore. In several others no legislation was necessary as in the case of UK.	Not applicable as NSE was set up as a demutualised company.

Source: Report of the SEBI Group on Corporatisation and Demutualisation of Stock Exchanges.

Membership

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

Fees/Eligibility Criteria

The stock exchanges, however are free to stipulate stricter requirements than those stipulated by the SEBI. The minimum standards stipulated by NSE are in excess of those laid down by the SEBI. The admission of trading members is based on various criteria like capital adequacy, track record, education, and experience. With effect from July 1, 2008 a processing fee of Rs.11,236/- and an admission fee of Rs.5,61,800/- is charged for taking up new membership. The detailed eligibility criteria for trading membership in the CM, WDM, F&O and CD segment is presented in Table- 4-2. This reflects a conscious decision of NSE to ensure quality broking services.

Corporatisation No of Brokers and Sub brokers	The authorities have been encouraging corporatisation of the broking industry. As a result, a number of brokers-proprietor firms and partnership firms have converted themselves into corporates. As of end March 2008, 4,190 brokers, accounting for nearly 44.17 % of total brokers have become corporate entities. Amongst those registered with NSE around 92.03 % of them were corporatised, followed by BSE with 81.08 % corporate brokers. During 2007-08, 218 new brokers were registered with SEBI, whereas 174 were membership cases of reconciliation/cancellation/surrender As at end-March 2008, there were 44,074 sub-brokers registered with SEBI, as compared with 27,540 sub-brokers as at end of previous year. NSE and BSE together constituted 97.02% of the total sub-brokers.

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

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

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

Key provisions of Various Acts governing the listing of securities	• The Companies Act, 1956 requires a company intending to issue securities to the public to seek permission from one or more recognised stock exchanges for its listing. If the permission is not granted by all the stock exchanges before the expiry of 10 weeks from the closure of the issue, then the allotment of securities would be void. Also, a company may prefer to appeal against refusal of a stock exchange to list its securities to the Securities Appellate Tribunal (SAT). The prospectus should state the names of the stock exchanges, where the securities are proposed to be listed. • The byelaws of the exchanges stipulates norms for the listing of securities. All listed companies are under obligation to comply with the conditions of listing agreement with the stock exchange where their securities are listed. • According to the Securities Contract Regulation Act 1956, for any security to be listed on any recognized stock exchange, it has to fulfill the eligibility criteria and comply with the regulations made by SEBI. • The Securities Contract (Regulation) Act, 1956 prescribe requirements with respect to the listing of securities on a recognised stock exchange and empowers SEBI to waive or relax the strict enforcement of any or all of requirements with respect to listing prescribed by these rules. • The listing agreement states that the issuer should agree to adhere to the agreement of listing, except for a written permission from SEBI. As a precondition for the security to remain listed, an issuer should comply with the conditions as may be prescribed by the Exchange. Further, the securities are listed on the Exchange at its discretion, as the Exchange has the right to suspend or remove from the list the said securities at any time and for any reason, which it considers appropriate.

	• As per SEBI provision, the basic norms of listing on the stock exchanges should be uniform across the exchanges. However, the stock exchanges can prescribe additional norms over and above the minimum, which should be part of their byelaws. SEBI has been issuing guidelines/circulars prescribing certain norms to be included in the listing agreement and to be complied by the companies. The listing requirements for companies in the CM segment of NSE are presented in (Table 4-3). • The stock exchanges levy listing fees on the companies, whose securities are listed with them. The listing fee has two components-initial fee and annual fee. While, initial fee is a fixed amount, the annual fee varies depending upon the size of the company. as per the below table. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than Rs.500 crores would have to pay minimum fees of Rs.3,75,000 and an additional listing fees of Rs.2,500 for every increase of Rs.5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than Rs.1,000 crores would have to pay minimum fees of Rs.6,30,000 and an additional listing fees of Rs.2,750 for every increase of Rs.5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc.

Listing Fees in the CM Segment

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

Internet trading

SEBI has allowed the use of internet as an order routing system for communicating investors' orders to the exchanges through the registered brokers. These brokers should obtain the permission from their respective stock exchanges. In February 2000, NSE became the first exchange in the country to provide web-based access to investors to trade directly on the Exchange followed by BSE in March 2001. The orders originating from the PCs of investors are routed through the internet to the trading terminals of the designated brokers with whom they have relations and further to the exchange. After these orders are matched, the transaction is executed and the investors get the confirmation directly on their PCs.

Trading Regulations *Insider Trading*	Insider Trading is considered as an offence and is hence prohibited as per the SEBI (Prohibition of Insider Trading) Regulations, 1992. The same was amended in the year 2003. The act prohibits an insider from dealing (on his behalf or on behalf of any other person) in securities of a company listed on any stock exchange, when in possession of any unpublished price sensitive information. Further, it has also prohibited any insider from communicating, counseling or procuring directly or indirectly any unpublished price sensitive information to any person who while in possession of such unpublished price sensitive information should not deal in securities. Price sensitive information means any information which is related directly or indirectly to a company and which if published is likely to materially affect the price of securities of a company. It includes information like periodical financial results of the company, intended declaration of dividends (both interim and final), issue of securities or buy-back of securities, any major expansion plans or execution of new projects, amalgamation, merger or takeovers, disposal of the whole or substantial part of the undertaking and significant changes in policies, plans or operations of the company. SEBI is empowered to investigate on the basis of any complaint received from the investors, intermediaries or any other person on any matter having a bearing on the allegations of insider trading. SEBI can also investigate suo motu upon its own knowledge or information in its
Unfair Trade Practices	The SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to the Securities Market) Regulations 2003 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. The regulations specifically prohibit fraudulent dealings, market manipulations, misleading statements to induce sale or purchase of securities, unfair trade practices relating to securities. When SEBI has reasonable ground to believe that the transaction in securities are being dealt within a manner detrimental to the investor or the securities market in violation of these regulations and when any intermediary has violated the rules and regulations under the act then it can order to investigate the affairs of such intermediary or persons associated with the securities market. Based on the report of the investigating officer, SEBI can initiate action for suspension or cancellation of registration of an intermediary.

Takeovers

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

The SEBI (Substantial Acquisition of shares and Takeover) Regulations, 1997	In context of this regulation '**acquirer**' is defined as a person who directly or indirectly acquires or agrees to acquire shares or voting rights in the target company or acquires or agrees to acquires '**control'** over the target company, either by himself or with any person acting in concert with the acquirer. The term '**control**' includes right to appoint majority of the directors or to control the management or policy decisions exercisable by any person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner. This implies that where there are two or more persons in control over the target company, the cesser of any one of such persons from such control should not be deemed to be in control of management.
Chapter II 'Disclosures of shareholding and control in a listed company' of the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997	Certain categories of persons are required to disclose their shareholding and/or control in a listed company to that company. Such companies, in turn, are required to disclose such details to the stock exchanges where shares of the company are listed. In case of acquisition of 5 percent and more share or voting rights of a company, an acquirer would have to disclose at every stage the aggregate of his shareholding or voting rights in that company to the company and to the stock exchange where shares of the target company are listed. No acquirer either by himself or through/with persons acting in concert with him should acquire, additional shares or voting rights unless such acquirer makes a public announcement to acquire shares in accordance with the regulations. As per the regulations, the mandatory public offer is triggered on:

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Limit of 15 percent or more but less than 55 percent of the shares or voting rights in a company.
Limit of 55 percent or more but less than 75 percent of the shares. In a case where the target company had obtained listing of its shares by making an offer of at least ten percent of issue size to the public in terms of the relevant clause mentioned in the Securities Contracts (Regulations) Rules 1957 or in terms of any relaxation granted from strict enforcement of the said rule, then the limit would be 90 percent instead of 75 percent. Further, if the acquire (holding 55 % more but less than 75 percent) is desirous of consolidating his holding while ensuring that the public shareholding in the target company does not fall below the minimum level permitted in the listing agreement, he may do so only by making a public announcement in accordance with these regulations.

Irrespective of whether or not there has been any acquisition of shares or voting rights in a company, no acquirer should acquire control over the target company, unless such person makes a public announcement to acquire shares and acquires such shares in accordance with the regulations.
The regulations give enough scope for existing shareholders to consolidate and also cover the scenario of indirect acquisition of control. The applications for takeovers are scrutinised by the Takeover Panel constituted by the SEBI.
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<tr><td>Buy Back</td><td>
Buy Back is done by the company with the purpose to improve liquidity in its shares and enhance the shareholders' wealth. Under the SEBI (Buy Back of Securities) Regulations, 1998, a company is permitted to buy back its shares or other specified securities by any of the following methods:-

From the existing security holders on a proportionate basis through the tender offer
From the open market through (i) book building process (ii) stock exchange
From odd-lot holders.

The company has to disclose the pre and post-buy back holding of the promoters. To ensure completion of the buy back process speedily, the regulations have stipulated time limit for each step. For example in the cases of purchases through tender offer an offer for buy back should not remain open for more than 30 days. The company should complete the verifications of the offers received within 15 days of the closure of the offer and shares or other specified securities. The payment for accepted securities has to be made within 7 days of the completion of verification and bought back shares have to be extinguished and physically destroyed within 7 days of the date of the payment. Further, the company making an offer for buy back will have to open an escrow account on the same lines as provided in takeover regulations.
</td></tr>
<tr><td>Circuit Breakers</td><td>
Volatility in stock prices is a cause of concern for both the policy makers and the investors. To curb excessive volatility, SEBI has prescribed a system of circuit breakers. The circuit breakers bring about a nation-wide coordinated halt in trading on all the equity and equity derivatives markets. An index based market-wide circuit breaker system applies at three stages of the index movement either way at 10%, 15% and 20%. The breakers are triggered by movement of either Nifty 50 or Sensex, whichever is breached earlier (discussed in details in chapter 5).
Further, the NSE views entries of non-genuine orders with utmost seriousness as this has market-wide repercussion. It may suo-moto cancel the orders in the absence of any immediate confirmation from the members that these orders are genuine or for any other reason as it may deem fit. As an additional measure of safety, individual scrip-wise price bands has been fixed as below:

Daily price bands of 2% (either way) on a set of specified securities,
Daily price bands of 5% (either way) on a set of specified securities,
Price bands of 20% (either way) on all remaining securities (including debentures, warrants, preference shares etc which are traded on CM segment of NSE),
Daily price bands of 10% (either way) on specified securities,
No price bands are applicable on scrips on which derivative products are available or on scrips included in indices on which derivatives products are available.

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	For auction market the price bands of 20% are applicable. In order to prevent members from entering orders at non-genuine prices in these securities, the Exchange has fixed operating range of 20% for such securities.
Demat Trading	A depository holds securities in dematerialized form. It maintains ownership records of securities in a book entry form, and also effects transfer of ownership through book entry. Though, the investors have a right to hold securities in either physical or demat form, SEBI has made it compulsory that trading in securities should be only in dematerialised form. This was initially introduced for institutional investors and was later extended to all investors. Starting with twelve scrips on January 15, 1998, all investors are required to mandatorily trade in dematerialized form. The companies, which fail to establish connectivity with both the depositories on the scheduled date as announced by SEBI, then their securities are traded on the 'trade for trade' settlement window of the exchanges.
Statistics NSDL & CDSL	At the end of March 2008, the number of companies connected to NSDL and CDSL were 7,354 and 5,943 respectively. The number of dematerialised securities have increased from 233.95 billion at the end of March 2007 to 286.72 billion at the end of March 2008. During the same period the value of dematerialised securities has increased by 26.59 % from Rs.34,365 billion (US $ 788 billion) to Rs.49,670 billion (US $ 1,243 billion). Since the introduction of the depository system, dematerialisation has progressed at a fast pace and has gained acceptance amongst the market participants. All actively traded scrips are held, traded and settled in demat form. The details of progress in dematerialisation in two depositories, *viz*. NSDL and CDSL, as at the end of March 2008 and June 2008 are presented in (Table 4-4A). The Depositories in India provide depository services to investors through Depository Participants (DPs). The Depositories do not charge the investors directly, but charge their DPs who in turn charge the clients. DPs are free to have their own charge structure for their clients. However, as per SEBI directive, DPs cannot charge investors towards opening of a Beneficiary Owner (BO) account (except statutory charges), credit of securities into BO account and custody charges. It may be added that the depositories have been reducing its charges along with the growth in volumes. The charges levied on DPs by NSDL and CDSL are presented in (Table 4-4 B).
Charges for Services	As per SEBI Regulations, every stockbroker, on the basis of his total turnover, is required to pay annual turnover charges, which are to be collected by the stock exchanges. In order to share the benefits of efficiency, NSE has been reducing the transaction charges over a period of time. A member is required to pay the exchange, transaction charges at the rate of 0.0035% (Rs. 3.5 per Rs. 1 lakh) of the turnover. Trading members are also required to pay securities transaction tax (STT) on all delivery based transaction at the rate of 0.125% (payable by both buyer and seller) and in case of non-delivery transactions at the rate of 0.025% for equities payable by the seller only). The maximum brokerage chargeable by trading member in respect of trades effected in the securities admitted to dealing on the CM segment of the Exchange is fixed at 2.5% of the contract price, exclusive of statutory levies like, securities transaction tax, SEBI turnover fee, service tax and stamp duty. However, the brokerage charges as low as 0.15% are also observed in the market Stamp duties are payable as per the rates prescribed by the relevant states. In Maharashtra, for brokers having registered office in Maharashtra, it is charged at @ Re. 1 for every Rs. 10,000 or part thereof (i.e. 0.01%) of the value of security at the time of purchase/sale as the case may be. However, if the securities are not delivered, it is levied at @ 20 paise for every Rs. 10,000 or part thereof (i.e. 0.002%). As per the Finance Bill, 2008 Stock Exchanges and Clearing House Services would be charging a service tax on services rendered by them in relation to assisting, regulating or controlling the business of buying, selling or dealing in securities and including services provided in relation to trading, processing, clearing and settlement of transactions in securities , goods and forward contracts w.e.f 16^{th} May, 2008.

Institutional Trades	Trades by Mutual Funds and Foreign Institutional Investors are termed as Institutional trades. Transactions by MFs in the secondary market are governed by SEBI (Mutual Funds) Regulations, 1996. A MF under all its schemes is not allowed to own more than 10% of any company's paid-up capital. They are allowed to do only 'delivery-based' transactions. With effect from 21st April, 2008 a MF may engage in short selling of securities in accordance with the framework relating to short selling and securities lending and borrowing specified by SEBI. A MF cannot invest more than 10% of the NAV of a particular scheme in the equity shares or equity related instruments of a single company. The investment by FIIs are governed by the rules and regulations of the RBI and the SEBI. As per the RBI guidelines, total holding of each FII/sub-accounts should not exceed 10 % of the total paid up capital or paid up value of each series of convertible debentures. Further total holding of all the FIIs/sub-accounts put together should not exceed 24 % of the paid up capital or paid up value of each series of convertible debentures. This limit of 24 % can be increased to the sectoral cap / statutory limit as applicable to the Indian Company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body.

Index Services : A stock index consists of a set of stocks that are representative of either the whole market, or a specified sector. It helps to measure the change in overall behaviour of the markets or sector over a period of time. NSE and CRISIL, have jointly promoted the India Index Services & Products Limited (IISL). The IISL provides stock index services by developing and maintaining an array of indices for stock prices. IISL maintains a number of equity indices comprising broad-based benchmark indices, sectoral indices and customised indices.

The are maintained professionally to ensure that it continues to be a consistent benchmark of the equity markets, which involves inclusion and exclusion of stocks in the index, day-to-day tracking and giving effect to corporate actions on individual stocks.

NSE Indices

Indices	Particulars	Base date of the Index
S&P CNX NIFTY (NIFTY 50)	• Blue chip index of NSE • Most popular and widely used stock market indicator in the country. • diversified 50 stocks index accounting for 22 sectors of the economy • top 50 liquid stocks in India • accounts for 58.64 % of total market capitalisation of CM segment of NSE as at end-March 2008. • Accounts for 51.39 % of the traded value of all the stocks on the NSE as as at end – March 2008 • Used as a benchmarking fund portfolios, index based derivatives and index funds. • For reflecting the stock market behavior accurately and also for modern applications such as index funds and index derivatives. • base capital of Rs.2.06 trillion.	November 3, 1995
CNX Nifty Junior	• The next rung of liquid securities after Nifty 50 • The maintenance of the Nifty 50 and the CNX Nifty Junior are synchronised so that the two indices will always be disjoint sets • Accounts for 9.60 % of the market capitalization of CM segment of NSE as at end March 2008. • Introduced on January 1, 1997, with a base capital of Rs.0.43 trillion.	November 3, 1996

Contd.

Contd.

Indices	Particulars	Base date of the Index
CNX 100	• A diversified 100 stock index accounting for 35 sector of the economy • A combination of the Nifty 50 and CNX Nifty Junior	January 1, 2003
S&P CNX 500	• India's first broad-based benchmark of the Indian capital market for comparing portfolio returns vis-a-vis market returns. • Represents about 84.24 % of total market capitalization and about 78.00% of the total turnover on the NSE as on March 30, 2008. • The S&P CNX 500 companies are disaggregated into 72 industry indices viz. S&P CNX Industry Indices • Industry weightages in the index reflect the industry weightages in the market. For e.g. if the banking sector has a 5% weightage in the universe of stocks traded on NSE, banking stocks in the index would also have an approximate representation of 5% in the index.	1994
Nifty Midcap 50 and CNX Midcap	• The primary objective of the Nifty Midcap 50 Index and CNX Midcap is to capture the movement of the midcap segment of the market segment which is being increasingly perceived as an attractive investment segment with high growth potential	January 1, 2004 January 1, 2003
S&P CNX Defty	• Used as an instrument for measuring returns by institutional investor and off-shore fund enterprise with an equity exposure in India • S&P CNX Defty is Nifty 50, measured in dollars • Acts as a Performance indicator to foreign institutional investors, off shore funds, • Provides an effective tool for hedging Indian equity exposure • Provides fund managers an instrument for measuring returns on their equity investment in dollar terms. **Calculation of S&P CNX Defty** Computations are done using the Nifty 50 index calculated on the NEAT trading system of NSE and USD Rupee exchange rate that is based on the real time polled data feed which is as follows: (Nifty 50 at time t * Exchange rate as on base date/Exchange rate at time t) **Specifications of S&P CNX Defty:** Base date: 03 November 1995 Base S&P CNX Defty Index Value: 1000 Nifty 50 Value as on Base date: 1000 Exchange rate as on base date: 34.65 Adjustment factor as on Base date:1.00	November 3, 1995
Shariah indices for the Indian equities market S&P CNX 500 Shariah S&P CNX Nifty Shariah.	S&P Shariah Indices undergo sector and accounting-based screens that exclude businesses that offer products and services which are considered unacceptable or non-compliant according to Shariah-law, such as advertising and media (newspapers are allowed, sub-industries are analyzed individually), alcohol, financials, gambling, pork, pornography, tobacco, and the trading of gold and silver as cash on a deferred basis. All S&P Shariah Index constituents are monitored on a daily basis to ensure that the indices maintain strict Shariah compliance. • launched on February 19, 2008 • derived from the S&P CNX 500 and S&P CNX Nifty indices, which are the leading gauges of the Indian equity market	December 29,2006

Contd.

Contd.

Indices	Particulars	Base date of the Index
	• covers over 68% of the market capitalization for S&P CNX 500 and 80% for S&P CNX Nifty, *(though this can vary depending on the number of companies found to be compliant. Historical performance analysis, however, indicates that there is a high level of correlation between the underlying indices and their new Shariah compliant versions.)* • S&P CNX 500 Shariah comprises 247 companies with a market capitalization of In Rs 28,889 billion • S&P CNX Nifty Shariah comprises 38 companies with a market capitalization of In Rs 22,323 billion.	
S&P ESG India.	• launched on January 29,2008 • represents the first of its kind to measure environment, social and corporate governing (ESG) practices based on quantitative as opposed to subjective factors. • employs a unique and innovative methodology that quantifies a company's ESG practices and translates them into a scoring system which is then used to rank each company against their peers in the Indian market. • provides investors with exposure to a liquid and tradable index of 50 of the best performing stocks in the Indian market as measured by the ESG parameters.	January 03, 2005

BSE Indices

Indices	Particulars	Base date of the Index
SENSEX	• Blue chip index index of the Bombay Stock Exchange (BSE). • first compiled in 1986 and was calculated on a "Market Capitalization-Weighted" methodology of 30 component stocks representing a sample of large, well-established and financially sound companies. Consist of • A basket of 30 constituent stocks representing a sample of large, liquid and representative companies • It is scientifically designed and also based on globally accepted construction and review methodology. • From September 2003, the SENSEX is calculated on a free-float market capitalization methodology. The "free-float Market Capitalization-Weighted" methodology is a widely followed index construction methodology on which majority of global equity benchmarks are based. • Base index value is 100.	1978-79
BSE-100 INDEX	• National Index was launched on January 3, 1989. • Comprises of 100 stocks listed at five major stock exchanges in India at Mumbai, Calcutta , Delhi, Ahmedabad and Madras. • Criteria for selection had been market activity, due representation to various industry groups and representation of trading activity on major stock exchanges. • The BSE National Index was renamed as BSE-100 Index from October 14, 1996 and since then it is calculated taking into consideration only the prices of stocks listed at BSE. • BSE also calculates a dollar-linked version of BSE-100 Index. • Base index value is 100.	1983-84

Contd.

Contd.

Indices	Particulars	Base date of the Index
BSE-200 INDEX	• Constructed and launched on 27th May 1994. • Equity shares of 200 selected companies from the specified and non-specified lists of BSE have been considered for inclusion in the sample for `BSE-200'. • Selection of companies has primarily been done on the basis of current market capitalisation of the listed scrips on the exchange. • Besides market capitalisation, the market activity of the companies as reflected by the volumes of turnover and certain fundamental factors were considered for the final selection of the 200 companies. • A dollar-linked version of BSE-200 Index is also calculated • Base index value is 100.	1989-90
BSE-500 INDEX	• Consists of 500 scrips in its basket • Launched on August 9, 1999. • The changing pattern of the economy and that of the market have been kept in mind while constructing this index. BSE-500 index • It represents nearly 93% of the total market capitalisation on Bombay Stock Exchange Limited. means BSE-500 index ideally represents total market. • Represents all 20 major industries of the economy. • Base index value is 1000.	February 1, 1999
BSE Mid-Cap and BSE Small-Cap Index	• Tracks the performance of the companies with relatively small market capitalization and exclusively represent the mid and small cap companies listed on the Bombay Stock Exchange. • constructed to capture the trend in the specific class of companies (with lower market capitalisation). • Scrips that are classified as Z group, scrips traded under the permitted category and scrips with the trading frequency of less than 60 % days in preceding three months are not considered for inclusion in these indices. • Tracks the performance of scrips between 80 and 95 % scrips (95-100%). • Number of companies in each of these indices is • Base index value is 1000**.**	2002-03
BSE PSU Index	• Launched on Monday, 4th June 2001 with the index calculation as Full Market capitalisation • The index consists of major Public Sector Undertakings listed on the Exchange. • The BSE - Public Sector Undertaking (PSU) Index is a stock index that tracks the performance of the listed PSU stocks on the Exchange. • For consideration scrips for inclusion in BSE PSU index, Public Sector Undertaking refers to any undertaking wherein the holding of Central or State Government is equal to or more than 51%. • BSE PSU index is a sub-set of BSE-500 index.. • Base value is 1000**.**	February 1, 1999
Dollex Series of BSE Indices	• Serves a yardstick by which the growth values of BSE indices are measured in dollar terms. • Reflects, in one value, the changes in both the stock prices and the foreign exchange variation. • Formula for calculation of index is suitably modified to express the current and base market values in dollar terms. • The scope for dollar-linked index emerged from the background of Indian equity markets increasingly getting integrated with global capital markets and the need to assess the market movements in terms of international benchmarks. This	

Contd.

Contd.

Indices	Particulars	Base date of the Index
	dollar-linked index is useful to overseas investors, as it helps them measure their 'real returns' after providing for exchange rate fluctuations. • Dollar-linked version of SENSEX i.e Dollex-30 was launched on July 25, 2001 and dollar-linked version of BSE-200 i.e Dollex-200 was launched on May 27, 1994. • These indices are calculated at the end of the trading session by taking into consideration day's rupee/ US$ reference rate as announced by India's Central Bank i.e. Reserve Bank of India. • Dollex-100, a dollar linked version of BSE-100 index was effective from May 22, 2006 • From May 22, 2006, the calculation of Dollex-30, Dollex-100 and Dollex-200 are calculated and displayed through BSE On-line trading terminals (BOLT) by taking into account real-time Re./US$ Exchange rate . • **Dollex** = Index Value (in local currency) * Base Rupee US$ Rate/ Current Rupee US$ Rate	

NSE SECTORAL INDICES

Sr. No	Index	Base Period	Base Index Value	Method of calculation
1	**CNX IT Index** Companies in this index have more than 50% of their turnover from IT related activities like software development, hardware manufacture, vending, support and maintenance.	January 1, 1996	100	Market capitalisation weighted index
2	**CNX Bank Index** This index has the most liquid and large capitalised Indian Banking stocks. The index is composed of 12 stocks from the banking sector which trade on the NSE.	January 01, 2000	1000	Market capitalisation weighted index
3	**CNX FMCG Index -** *(Fast Moving Consumer Goods)*The CNX FMCG Index is a 15 stock Index from the FMCG sector that trade on the National Stock Exchange	December 1995	1000	Market capitalisation weighted index
4	**CNX PSE Index (Public Sector Enterprises)** The Government has selectively been disinvesting its holdings in public sector enterprises since 1991. This index provides regulators , investors and market intermediaries as an appropriate benchmark that captures the performance of this segment of the market, as well as to make available an appropriate basis for pricing forthcoming issues of PSEs. It comprises of 20 PSE stocks.	December 1994	1000.	Market capitalisation weighted index
5	**CNX MNC Index** This index comprised of 50 listed companies in which the foreign shareholding is over 50% and / or the management control is vested in the foreign company.	December, 1994	1000	Market capitalisation weighted index
6	**CNX Service Sector Index** A 30 stocks index which includes companies belonging to services sector like Computers – Software, Banks, Telecommunication –services, Financial Institutions, Power, Media, Courier, Shipping etc.	May 1999	1000	Market capitalisation weighted index

Contd.

Contd.

Sr. No	Index	Base Period	Base Index Value	Method of calculation
7	**S&P CNX Industry Indices** S&P CNX 500 Equity Index is desegregated into 72 Industry sectors which are separately maintained by IISL. The industry indices are derived out of the S&P CNX 500 and care is taken to see that the industry representation in the entire universe of securities is reflected in the S&P CNX 500. e.g., if in the entire universe of securities, Banking sector has a 5% weightage, then the Banking sector (as determined by the Banking stocks in S&P CNX 500) would have a 5% weightage in the S&P CNX 500. The Banking sector index would be derived out of the Banking stocks in the S&P CNX 500. The changes to the weightage of various sectors in the S&P CNX 500 would dynamically reflect the changes in the entire universe of securities			
8	**CNX Energy Index** This index captures the performance of the companies in Energy sector. Energy sector Index will include companies belonging to Petroleum, Gas and Power sub sectors.	January 1, 2001	1000	Market capitalisation weighted index
9	**CNX Pharma** This index capture the performance of the companies in the Pharma Sector Index	January 1, 2001	1000	Market capitalisation weighted index
10	**CNX Infrastructure Index** This Index captures the performance of 25 stocks belonging to the Infrastructure sector like Telecom, Power, Port, Air, Roads, Railways, shipping and other Utility Services providers.	January 1, 2004	1000	Market capitalisation weighted index
11	**CNX PSU BANK Index** This index captures the performance of the Public Sector Undertaking banks. One of the eligibility criteria is that the constituents should be available for trading in the derivatives segment (Stock Futures & Options market) on NSE.	January 1, 2004	1000	Free Float methodology based weighted index
12	**CNX Realty Index** Further necessitated by the thrust of redevelopment of old buildings, building townships and redeveloping mill lands, one can witness plenty of opportunities in real estate sector backed by favourable tax regime. IISL has developed the CNX Realty Index to synergize these emerging opportunities in real estate sector along with their Index expertise creating new investment avenues for investors.	December 29, 2006	1000	Free Float methodology based weighted index

BSE Sectoral Indices

Sr. No	Index	Base Period	Base Index Value	Method of calculation
1	BSE Auto	01-Feb-1999	1000	Free-float market capitalisation
2	BSE BANKEX	01-Jan-2002	1000	Free-float market capitalisation
3	BSE Capital Goods	01-Feb-1999	1000	Launched on full market capitalisation method and effective August 23, 2004, calculation method shifted to free-float market capitalisation

Contd.

Contd.

Sr. No	Index	Base Period	Base Index Value	Method of calculation
4	BSE Consumer Durables	01-Feb-1999	1000	Launched on full market capitalisation method and effective August 23, 2004, calculation method shifted to free-float market capitalisation
5	BSE FMCG	01-Feb-1999	1000	Launched on full market capitalisation method and effective August 23, 2004, calculation method shifted to free-float market capitalisation
6	BSE Healthcare	01-Feb-1999	1000	Launched on full market capitalisation method and effective August 23, 2004, calculation method shifted to free-float market capitalisation
7	BSE IT	01-Feb-1999	1000	Launched on full market capitalisation method and effective August 23, 2004, calculation method shifted to free-float market capitalisation
8	BSE Metal	01-Feb-1999	1000	Free-float market capitalisation
9	BSE Oil & Gas	01-Feb-1999	1000	Free-float market capitalisation
10	BSE Power	03-Jan-2005	1000	Free-float market capitalisation
11	BSE Realty	2005	1000	Free-float market capitalisation
12	BSE TEC*k* Index	02-April-01	1000	Free-float market capitalization

Table 4-2: Eligibility Criteria for Trading Membership

CORPORATES

(Amount in Rs. lakh)

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

Contd.

Contd.

(Amount in Rs. lakh)

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

Net worth requirement for Professional Clearing members in F&O segment is Rs. 300 lakhs. Further a Professional Clearing member needs to bring IFSD of 25 lakhs with NSCCL and Collateral Security Deposit (CSD) of 25 lakhs with NSCCL as deposits.
**Additional IFSD of 25 lakhs with NSCCL is required for Trading and Clearing (TM-CM) and for Trading and Self clearing member (TM/SCM).*
*** Additional Collateral Security Deposit (CSD) of 25 laksh with NSCCL is required for Trading and Clearing (TM-CM) and for Trading and Self clearing member (TM/SCM).*
In addition, a member clearing for others is required to bring in IFSD of Rs. 2 lakh and CSD of Rs. 8 lakh per trading member he undertakes to clear in the F&O segment.

Requirements for Professional Clearing Memberhip

(All values in Rs. lakh)

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

** The Professional Clearing Member (PCM) is required to bring in IFSD of 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.*

Eligibility Criteria for Trading Membership - INDIVIDUALS/PARTNERSHIP FIRMS

(Amount in Rs. lakh)

Particulars	CM	CM and F&O	WDM	CM and WDM	CM,WDM and F&O
Net Worth	75	75 (Membership in CM segment and Trading membership in F&O segment) 100 (Membership in CM segment and Trading and Self clearing membership in the F&O segment) 300 (Membership in CM segment and Trading and Clearing membership in F&O segment)	200	200	200 (Membership in WDM segment, CM segment and Trading/ Trading and Self Clearing membership in F&O segment) 300 (Membership in WDM segment,CM segment and Trading and clearing membership on F&O segment)

Contd.

Contd.

(Amount in Rs. lakh)

Particulars	CM	CM and F&O	WDM	CM and WDM	CM,WDM and F&O
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 Chareges for Futures Segment	NIL	1	NIL	NIL	1

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

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

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
Cash to NSEIL	10	10	12.5	15	15	20	-
Cash to NSCCL	-	25	-	25	-	25	25
Non cash to NSCCL	-	25	-	25	-	25	25

Clearing member pays Rs. 10 lakhs for clearing every trading member's trades in cash & non-cash form.

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

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

Criteria	Initial Public Offerings (IPOs)	Companies listed on other exchanges
Paid-up Equity Capital (PUEC)/Market Capitalisation (MC) /Net Worth	PUEC ≥ Rs. 10 cr. and MC ≥ Rs. 25 cr.	PUEC ≥ Rs. 10 cr. and MC ≥ Rs. 25 cr. OR PUEC ≥ Rs. 25 cr. OR MC ≥ Rs. 50 cr. OR The company shall have a net worth of not less than Rs.50 crores in each of the preceding financial years.
Company/Promoter's Track Record	Atleast 3 years track record of either a) the applicant seeking listing OR b) the promoters/promoting company incorporated in or outside India OR c) Partnership firm and subsequently converted into Company not in existence as a Company for three years) and approaches the Exchange for listing. The Company subsequently formed would be considered for listing only on fulfillment of conditions stipulated by SEBI in this regard.	Atleast three years track record of either a) the applicant seeking listing; OR b) the promoters/promoting company, incorporated in or outside India.

Contd.

Contd.

Criteria	Initial Public Offerings (IPOs)	Companies listed on other exchanges
Dividend Record / Net worth / Distributable Profits	--	Dividend paid in at least 2 out of the last 3 financial years immediately preceding the year in which the application has been made OR The networth of the applicants atleast Rs.50 crores OR The applicant has distributable profits in at least two out of the last three financial years.
Listing		Listed on any other stock exchange for at least last three years OR listed on the exchange having nationwide trading terminals for at least one year.
Other Requirements	(a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs. (b) Satisfactory redressal mechanism for investor grievances, (c) distribution of shareholding and (d) details of llitigation record of the promoting company, if any. (e) Track record of Directors of the Company	(a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs. (b) Satisfactory redressal mechanism for investor grievances, (c) distribution of shareholding and (d) details of llitigation record of the promoting company, if any. (e) Track record of Directors of the Company (f) Change in control of a Company/ Utilisation of funds raised from public

Note:

1. (a) In case of IPOs, Paid up Equity Capital means post issue paid up equity capital.

   (b) In case of Existing companies listed on other exchanges, the existing paid up equity capital as well as the paid up equity capital after the proposed issue for which listing is sought shall be taken into account.

2. (a) In case of IPOs, market capitalisation is the product of the issue price and the post-issue number of equity shares.

   (b) In case of case of Existing companies listed on other stock exchanges the market capitalisation shall be calculated by using a 12 month moving average of the market capitalisation over a period of six months immediately preceding the date of application. For the purpose of calculating the market capitalisation over a 12 month period, the average of the weekly high and low of the closing prices of the shares as quoted on the National Stock Exchange during the last twelve months and if the shares are not traded on the National Stock Exchange such average price on any of the recognised Stock Exchanges where those shares are frequently traded shall be taken into account while determining market capitalisation after making necessary adjustments for Corporate Action such as Rights / Bonus Issue/Split.

3. In case of Existing companies listed on other stock exchanges, the requirement of Rs.25 crores market capital shall not be applicable to listing of securities issued by Government Companies, Public Sector Undertakings, Financial Institutions, Nationalised Banks, Statutory Corporations and Banking Companies who are otherwise bound to adhere to all the relevant statutes, guidelines, circulars, clarifications etc. that may be issued by various regulatory authorities from time to time

4. Net worth means paid-up equity capital + reserves excluding revaluation reserve - miscellaneous expenses not written off - negative balance in profit and loss account to the extent not set off.

5. Promoters mean one or more persons with minimum 3 years of experience of each of them in the same line of business and shall be holding at least 20 % of the post issue equity share capital individually or severally.

6. In case a company approaches the Exchange for listing within six months of an IPO, the securities may be considered as eligible for listing if they were otherwise eligible for listing at the time of the IPO. If the company approaches the Exchange for listing after six months of an IPO, the norms for existing listed companies may be applied and market capitalisation be computed based on the period from the IPO to the time of listing.

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

Parameters of Progress	NSDL			CDSL		
	March-07	March-08	June-08	March-07	March-08	June-08
Companies - Agreement signed	6,483	7,354	7,530	5,589	5,943	6,025
Companies - Available for Demat	6,483	7,354	7,530	5,589	5,943	6,025
Market Cap. of Companies available (Rs.bn.)	35,988	52,197	44,387	33,894	51,626	44,024
Number of Depository Participants	240	251	258	365	419	433
Number of DP Locations	5,599	7,204	7,556	4,178	6,372	6,498
No. of Investor Accounts	7,903,389	9,372,335	9,563,784	2,368,101	4,798,222	5,135,602
Demat Quantity (mn.)	202,701	236,897	250,343	31,250	49,820	63,100
Demat Value (Rs. bn.)	31,426	43,770	39,125	2,939	5,900	5,646

Source: NSDL & CDSL.

Table 4-4 B: Service Charges levied by the Depositories end of June 2008

Depositories Services	NSDL	CDSL
Dematerialisation	Nil	Nil
Rematerialisation	a) Rs.10 for every hundred securities or part thereof ; or b) a flat fee of Rs.10/- per certificate which ever is higher.	A fee of Rs.10/- for every 100 securities or part thereof; or a Flat fee of Rs.10/- per certificate, whichever is higher. (However, no fee shall be collected in case of government securities where rematerialisation is used for transfer to other SGL participant account and units of UTI and other mutual funds where rematerialisation is used for redemption / repurchase.)
Custody	Nil	Nil
Settlement Fee	Rs. 5 per debit instruction	Rs. 500 per month on Clearing Members' settlement related accounts. Rs. 6/- per transaction is levied on Beneficial Owner accounts only for debit transactions.
Pledge Creation	Rs.25 per instruction	12/- per request (only Pledgor)
Pledge Closure	Nil	12/- per request (only Pledgor)
Pledge Invocation	Nil	Nil
Securities Borrowing		Facility not currently used

Source: NSDL & CDSL.

Market Outcome

Turnover – Growth and Distribution

Trading volumes in the equity segments of the stock exchanges have witnessed a phenomenal growth over the last few years. The trading volumes saw a considerable increase in late 1990's, however a slump was witnessed during the year 2001-02, where the trading volume decreased by 69 % as compared to the preceding year. The traits of recovery in the market are visibly seen for the last few years. The year 2002-03, saw a recovery where the total trading volume reported on the exchanges was Rs. 9,689,093 million(US $203,981 million).

During 2003-04, the trading volumes registered an year-on-year increase of 67 % to Rs.16,204,974 million (US $ 373, 473 million). The volumes further increased from Rs.16,668,963 million (US $ 381,005 million) in 2004-05 to Rs.23,901,030 million (US $ 535,777 million) in 2005-06. The fiscal 2006-07, also witnessed an increase in the trading volumes which amounted to Rs. 29,330,590 million (US$ 672,874 million). In percentage terms there has been a growth of 22.46 % in 2006-07 over the previous year's volume.

The trading value of the CM segment on NSE showed year-on-year increase of 82.55 % from Rs. 19,452,865 million (US $ 446,269 million) in 2006-07 to Rs.35,510,382 million (US $ 888,426 million) during 2007-08. The volumes soared mainly during the months of October 2007 to January 2008. (Table 4-5 & Table 4-6**).** The daily turnover on NSE averaged around Rs.141,476 million (US$ 3,540 million) in 2007-08 and continued at the same level of Rs. 133,373 million (US $ 3,105 million) during the first quarter of the fiscal 2008-09).

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

	Stock Exchanges	Capital Market Turnover				Share in Turnover (%)	
		2006-07		2007-08			
		(Rs. mn.)	(US $ million)	(Rs. mn.)	(US $ million)	2006-07	2007-08
1	NSE	19,452,865	446,269	35,510,380	888,426	67.01	69.22
2	BSE	9,561,850	219,359	15,788,570	395,011	32.94	30.77
3	Calcutta	6,940	159	0	0	0.02	0.00
4	Uttar Pradesh	7,990	183	4,750	119	0.03	0.01
5	Ahmedabad	0	0	0	0	0	0.00
6	Delhi	0	0	0	0	0	0.00
7	Pune	0	0	0	0	0	0.00
8	Ludhiana	0	0	0	0	0	0.00
9	Bangalore	0	0	0	0	0	0.00
10	ICSE	0	0	0	0	0	0.00
11	Madras	12	0.28	0	0	0.00004	0.00
12	Madhya Pradesh	0	0	0	0	0	0.00
13	Vadodara	0	0	0	0	0	0.00
14	OTCEI	0	0	0	0	0	0.00
15	Gauhati	0	0	0	0	0	0.00
16	Cochin	0	0	0	0	0	0.00
17	Bhubaneshwar	0	0	0	0	0	0.00
18	Coimbatore	0	0	0	0	0	0.00
19	Jaipur	0	0	0	0	0	0.00
	Total	**29,030,577**	**665,992**	**51,303,700**	**1,283,555**	**100.00**	**100.00**

NSE and BSE, were the only two stock exchange which reported significant trading volumes. With the exception of Uttar Pradesh Stock Exchange, all other stock exchanges did not report any trading volumes during 2007-08. NSE consolidated its position as the market leader by contributing about 69.22% of the total turnover in India. Since its inception in 1994, NSE has emerged as the favoured exchange among trading members. The consistent increase in popularity of NSE is clearly evident from (Annexure 4-2), which presents the business growth of CM segment of NSE. Not only in the national arena, but also in the international markets, NSE has been successful in creating a niche for

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

Month	Turnover				Average Daily Turnover				Market Capitalisation (end of period)			
	NSE		BSE		NSE		BSE		NSE		BSE	
	Rs. mn	US $ mn	Rs. mn	US $ mn	Rs.mn	US $ mn	Rs.mn	US $ mn	Rs.mn	US $ mn	Rs.mn	US $ mn
Apr-06	1,773,724	40,691	874,870	20,070	98,540	2,261	48,600	1,115	29,901,998	685,983	32,555,650	746,861
May-06	2,014,090	46,205	958,200	21,982	91,550	2,100	43,550	999	26,126,387	599,367	28,420,490	651,996
Jun-06	1,510,500	34,652	750,130	17,209	65,674	1,507	32,610	748	25,246,594	579,183	27,216,770	624,381
Jul-06	1,186,983	27,231	546,980	12,548	56,523	1,297	26,050	598	25,142,609	576,798	27,121,430	622,194
Aug-06	1,307,960	30,006	630,840	14,472	59,453	1,364	28,670	658	27,774,010	637,165	29,937,790	686,804
Sep-06	1,443,388	33,113	716,290	16,432	68,733	1,577	34,110	783	29,941,316	686,885	31,856,790	730,828
Oct-06	1,383,822	31,746	696,270	15,973	69,191	1,587	34,810	799	31,383,194	719,963	33,706,750	773,268
Nov-06	1,898,635	43,557	1,018,400	23,363	86,302	1,980	66,290	1,521	33,736,518	773,951	35,773,070	820,671
Dec-06	1,701,054	39,024	855,120	19,617	85,053	1,951	42,760	981	34,262,356	786,014	36,243,560	831,465
Jan-07	1,751,470	40,181	876,040	20,097	87,573	2,009	43,800	1,005	35,714,874	819,336	37,797,410	867,112
Feb-07	1,801,702	41,333	888,440	20,382	94,826	2,175	46,760	1,073	32,969,306	756,350	34,892,130	800,462
Mar-07	1,679,537	38,530	780,280	17,900	79,978	1,835	37,160	852	33,673,500	772,505	35,450,410	813,269
2006-2007	**19,452,865**	**446,269**	**9,591,860**	**220,047**	**78,124**	**1,792**	**38,400**	**881**	**33,673,500**	**772,505**	**35,450,410**	**813,269**
Apr-07	1,685,665	42,173	786,928	19,688	84,283	2,109	39,346	984	36,503,677	913,277	38,281,770	957,763
May-07	2,075,852	51,935	988,207	24,724	98,850	2,473	47,057	1,177	38,980,783	975,251	40,745,500	1,019,402
Jun-07	1,936,482	48,448	952,684	23,835	92,213	2,307	45,366	1,135	39,783,807	995,342	41,682,710	1,042,850
Jul-07	2,672,269	66,857	1,250,537	31,287	121,467	3,039	56,843	1,422	43,175,715	1,080,203	45,297,700	1,133,292
Aug-07	2,312,406	57,854	1,060,414	26,530	105,109	2,630	48,201	1,206	42,969,941	1,075,055	45,380,050	1,135,353
Sep-07	2,660,497	66,562	1,231,438	30,809	133,025	3,328	61,572	1,540	48,865,608	1,222,557	52,029,530	1,301,715
Oct-07	4,555,894	113,983	1,990,887	49,810	207,086	5,181	90,495	2,264	57,222,271	1,431,630	63,320,920	1,584,211
Nov-07	4,144,195	103,683	1,706,227	42,688	188,372	4,713	77,556	1,940	58,767,421	1,470,288	63,854,740	1,597,567
Dec-07	3,663,854	91,665	1,635,157	40,910	192,834	4,824	86,061	2,153	65,432,719	1,637,046	71,699,830	1,793,841
Jan-08	4,471,378	111,868	1,856,418	46,445	194,408	4,864	80,714	2,019	52,953,868	1,324,840	57,960,770	1,450,107
Feb-08	2,801,764	70,097	1,219,746	30,517	133,417	3,338	58,083	1,453	54,199,423	1,356,003	58,878,460	1,473,066
Mar-08	2,530,125	63,301	1,109,911	27,769	140,562	3,517	61,662	1,543	48,581,217	1,215,442	51,380,140	1,285,468
2007-08	**35,510,382**	**888,426**	**15,788,552**	**395,010**	**141,476**	**3,540**	**62,903**	**1,574**	**48,581,217**	**1,215,442**	**51,380,140**	**1,285,468**
Apr-08	2,712,269	63,149	1,154,543	26,881	135,613	3,157	57,727	1,344	54,427,796	1,267,236	57,942,920	1,349,078
May-08	2,779,229	64,708	1,216,701	28,328	138,961	3,235	60,835	1,416	50,988,729	1,187,165	54,288,780	1,264,000
Jun-08	2,644,282	61,567	1,136,046	26,450	125,918	2,932	54,097	1,260	41,036,509	955,448	43,750,210	1,018,631
April 08- June 08	**8,135,781**	**189,424**	**3,507,290**	**81,660**	**133,373**	**3,105**	**57,497**	**1,339**	**41,036,509**	**955,448**	**43,750,210**	**1,018,631**

Source:NSE & BSE

itself. According to the WFE Annual Report 2007, in terms of number of trades in equity shares, NSE ranks 4th with 1,052,318 thousands of trades as end December 2007 and 657,282 thousands of trades during January 2008 to June 2008. The trades details of the top ranked stock exchanges are presented in (Table:4-7).

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

Exchange	End December 2007	January 2008- June 2008
NYSE	2,320,574	1,724,418
Nasdaq	1,644,895	1,029,024
Shanghai Stock Exchange	1,617,332	714,953
NSE	1,052,319	657,282
Shenzhen SE	840,258	358,466
Korea Exchange	605,798	303,789

Source : WFE Reports

The top '50' companies at NSE based on their turnover have been classified as per the different sectors of the economy and are presented in Table 4-8. It is clearly visible how few of the sectors have undergone a significant change in the last two fiscals.

The share of trading volumes in the Infrastructure sector saw a significant increase from 7.38 % in the last fiscal to 22.93 % in the current year. This sector also holds the maximum share in terms of trading volumes in the current fiscal 2007-08. Among the top '50' Companies there was a significant contribution in trading volumes from newly listed companies like DLF limited-2.53 % (listed on 05th July, 2007), Power Grid Corporation Ltd- 1.45 % (listed on 05th October 2007), Reliance Power Ltd -0.80 % (listed on 11th February 2008) and Housing Dev & Infra Ltd- 1.09 % (listed on 24th July,2007) which has attributed to the emergence of this sector.

The top '50' companies cover a significant share of trading volumes in the Petrochemicals sector of 17.80%. This sector includes companies like Cairn India Limited (listed on 09th January 2008).

The share of manufacturing companies in the trading volume of top '50' companies has been witnessing a steady increase over the years. In the current fiscal the top '50' companies with the maximum share in this sector were Rel. Nat. Resources Ltd – 4.90 % in terms of trading volumes and NMDC Ltd (listed on 03rd March 2008).

The IT sector on the other hand witnessed a slowdown in the share of top '50' companies The share of trading volumes decreased from 15.04 % in 2006-07 to 5.90 % in 2007-08.

A slight dip in the share of the Infrastructure sector during the first quarter of the fiscal 2008-09 (17.62 %) in comparison to 2007-08 (22.93 %). The Petrochemicals sector stood out with the highest turnover share of 21.50 % . In case of other sectors the share of turnover during 2007-08 and the first quarter of the fiscal 2008-09 is quite comparable.

The share of top 'N' securities in turnover has been on a declining trend since the past few years. Till the year 2002-03 the share of top '5' securities accounted for 40.58 % of the turnover. However, in the subsequent years it is seen that several more securities have been trading actively and the share of top '5' securities has been steadily declining. In the current fiscal the share of top '5' securities accounted for 16.29 % of the total turnover. Trading in top '100' securities was 77.29 % in the current fiscal. Member-wise distribution of turnover indicates increasing diffusion of trades among a larger number of trading members over the years. During 2007-08, top '5' members accounted for only 14.52% of turnover, while top '100' members accounted for 73.90% of total turnover. (Table 4-9)

The market capitalization of top ten index securities in India is less concentrated in comparison to that in other comparable markets as may been seen from (Table 4-10). Top ten index securities accounted for 26.80 % of the market capitalization in India and ten most active index securities accounted for 21.60 % of the total turnover at the end of December 2007.

Table 4-8: Industry Wise Distribution of Turnover and Market Capitalisation of Top '50' Companies listed at NSE

Sector	Trading Value (Amount)						Trading Value (% to Total 'Top 50 Co's)			Market Capitalisation (Amount)						Market Capitalisation (% to Total 'Top 50 Co's)		
	2006-07		2007-08		April- 08- June 08		2006-07	2007-08	April- 08- June 08	2006-07		2007-08		April- 08- June 08		2006-07	2007-08	April-08-June 08
	(Rs.mn.)	(US $ mn.)	(Rs.mn.)	(US $ mn.)	(Rs.mn.)	(US $ mn.)				(Rs.mn.)	(US $ mn.)	(Rs.mn.)	(US $ mn.)	(Rs.mn.)	(US $ mn.)			
Banks	724,331	16,617	2,041,820	51,084	494,161	11,506	6.01	9.35	8.59	2,032,839	46,635	2,835,871	70,950	1,981,052	46,125	9.23	8.96	7.46
Financial Services	863,158	19,802	2,545,235	63,679	622,179	14,486	7.16	11.66	10.82	531,202	12,186	977,431	24,454	780,200	18,165	2.41	3.09	2.94
Engineering	259,087	5,944	668,120	16,716	199,883	4,654	2.15	3.06	3.48	454,710	10,432	887,017	22,192	638,819	14,874	2.07	2.80	2.40
FMCG (Fast Moving Consumer Goods)	450,126	10,326	266,998	6,680	62,655	1,459	3.74	1.22	1.09	1,021,502	23,434	1,275,324	31,907	1,158,975	26,984	4.64	4.03	4.36
Infrastructure	889,492	20,406	5,004,577	125,208	1,012,840	23,582	7.38	22.93	17.62	1,553,369	35,636	5,392,609	134,916	3,629,058	84,495	7.06	17.05	13.66
Information Technology	1,812,571	41,582	1,287,940	32,223	418,504	9,744	15.04	5.90	7.28	3,992,494	91,592	2,513,882	62,894	2,938,573	68,418	18.14	7.95	11.06
Manufacturing	4,071,678	93,409	4,304,842	107,702	1,036,979	24,144	33.79	19.72	18.03	4,536,595	104,074	7,119,800	178,129	5,547,435	129,160	20.61	22.51	20.88
Petrochemicals	1,643,242	37,698	3,886,460	97,234	1,235,963	28,777	13.64	17.80	21.50	4,817,230	110,512	7,256,691	181,553	6,680,052	155,531	21.88	22.94	25.14
Pharmaceuticals	237,173	5,441	-	-	215,168	5,010	1.97	—	3.74	518,650	11,898	254,619	6,370	485,382	11,301	2.36	0.80	1.83
Services	-	-	-	-	-	-	-	-	-	-	-	231,893	5,802	197,995	4,610	-	0.73	0.75
Telecommunications	923,796	21,193	1,821,924	45,582	401,058	9,338	7.67	8.35	6.98	2,554,117	58,594	2,890,803	72,324	2,529,041	58,883	11.60	9.14	9.52
Media & Entertainment	175,352	4,023	-	-	50,458	1,175	1.46	0.00	0.88	-	-	-	-	-	-	-	-	-
Total	**12,050,008**	**276,440**	**21,827,916**	**546,107**	**5,749,848**	**133,873**	**100.00**	**100.00**	**100.00**	**22,012,708**	**504,994**	**31,635,939**	**791,492**	**26,566,582**	**618,547**	**100.00**	**100.00**	**100.00**

Table 4-9: Percentage Share of Top 'N' Securities/Members in Turnover of NSE

	No. of Securities/Members				
	5	10	25	50	100
Securities					
1994-95 (Nov.-Mar.)	2.00	55.92	68.98	81.14	91.07
1995-96	82.98	86.60	90.89	93.54	95.87
1996-97	84.55	91.96	95.70	97.03	98.19
1997-98	72.98	85.17	92.41	95.76	97.90
1998-99	52.56	67.11	84.71	92.03	95.98
1999-00	39.56	59.22	82.31	88.69	93.66
2000-01	52.15	72.90	88.93	94.57	97.46
2001-02	44.43	62.92	82.24	91.56	95.91
2002-03	40.58	55.41	77.8	89.16	95.38
2003-04	31.04	44.87	64.32	79.44	91.03
2004-05	25.88	41.65	57.98	72.4	84.26
2005-06	22.15	31.35	46.39	59.22	73.12
2006-07	16.97	25.25	43.46	61.94	77.22
2007-08	16.29	26.78	45.46	61.47	77.29
Members					
1994-95 (Nov.-Mar.)	18.19	26.60	44.37	61.71	81.12
1995-96	10.65	16.56	28.61	41.93	58.59
1996-97	5.94	10.08	19.67	30.57	45.95
1997-98	6.29	10.59	18.81	29.21	44.24
1998-99	7.73	11.96	20.77	31.66	47.02
1999-00	7.86	12.99	22.78	34.41	49.96
2000-01	7.78	12.76	23.00	33.86	48.79
2001-02	7.14	12.29	23.63	36.32	53.40
2002-03	10.26	16.41	29.07	42.49	59.15
2003-04	11.58	17.36	30.34	44.05	61.37
2004-05	13.52	20.2	34.97	49.01	65.09
2005-06	14.62	22.57	38.17	52.57	68.45
2006-07	14.72	24.27	42.61	56.71	71.22
2007-08	14.57	25.71	44.70	60.11	73.9

Source: NSE.

Table 4-10: Market Concentration in Emerging Asian Markets: End December 2007

(In per cent)

Market	Index Stock's Share of		Share of 10 Largest Index Stocks in	
	Market Capitalisation	Turnover	Market Capitalisation	Turnover
Brazil	84.0	81.3	42.7	42.0
China	85.4	50.3	37.8	11.9
Thailand	86.8	83.1	48.9	47.7
Taiwan	94.4	59.9	32.8	16.6
Korea	92.1	71.6	29.1	16.9
Malaysia	80.8	63.3	37.8	26.9
India	77.5	67.8	26.8	21.6

Source: S&P Global Stock Markets Factbook 2008

At the end of March 2008, 305 members on CM segment were permitted by NSE to allow investors' web based access to its trading system. These members in turn have registered 4,405,134 clients for web based access. During the year 2007-08 the trading volumes of Rs.6,683,990 million (US $ 167,225 million) constituted 18.82 % of the total trading volumes executed through the internet.

NEAT*iXS* a product of the NSE.IT helps brokerage firms to conduct internet trading, which can be accessed easily using standard browsers. It provides real time on-line market information including stock quotes and order screens, allowing investors to place orders from their personal computers. The success of internet trading in India, however, will depend on expansion of internet bandwidth, which is necessary for faster execution of trades.

World Traded Value

In 2007, United States ranked first with the total traded value of US $ 42,613,206 million. United Kingdom ranked second with the traded value of US $ 10,324,477 million followed by China belonging to the emerging markets at US $ 7,791,702 million of traded value. Among the first 40 countries ranked according to total traded value, 22 countries belonged to the developed markets while 18 belonged to the emerging markets. India ranked 15th with a trading volume of US $ 1,107,550 million (Table 4-11).

Table 4-11: Top 40 countries World Value Traded, 2007

Rank	Country	Total Value Traded (US $ millions)
1	United States	42,613,206
2	United Kingdom	10,324,477
3	**China**	7,791,702
4	Japan	6,497,193
5	France	3,418,890
6	Germany	3,363,093
7	Spain	2,962,122
8	Italy	2,313,483
9	**Korea**	1,974,015
10	Netherlands	1,803,445
11	Switzerland	1,777,801
12	Canada	1,645,469
13	Australia	1,322,822
14	**Taiwan**	1,272,432
15	**India**	1,107,550
16	Sweden	968,832
17	Hongkong	916,884
18	**Russia**	754,537
19	**Saudi Arabia**	679,837
20	**Brazil**	584,951
21	Finland	543,344
22	Norway	471,885
23	**South Africa**	425,747
24	Singapore	384,227
25	**Turkey**	302,402
26	Belgium	255,694
27	Denmark	242,170
28	Greece	151,534
29	**United Arab Emirates**	150,339
30	**Malaysia**	150,002
31	Portugal	144,480
32	Ireland	136,618
33	Austria	121,422
34	**Kuwait**	120,704
36	**Mexico**	115,617
35	Israel	113,459
37	**Indonesia**	112,851
38	**Thailand**	108,210
39	**Pakistan**	100,452
40	**Poland**	84,568

Source:S&P Global Stock Markets Factbook 2008

Emerging markets

Developed markets

The BRIC (Brazil, Russia, India, China) economies posted a signigicant year-on-year increase of 236.53 % in the trading value from US $ 3,042,480 million in 2006 to US $ 10,238,740 million in 2007 (Table:4-12). China witnessed a phenomenal growth of 376.52 % in total BRIC turnover followed by Brazil - 129.83 % during 2007. The share of BRIC Economies in total traded value of emerging economies witnessed a huge increase from 36.98 % in 2006 to 62.58 % in 2007. The contribution of BRIC Economies in total world market turnover as well increased to 10.36% in 2007 from 4.51% in 2006.

Table 4-12: Turnover of BRIC Economies

Country	Traded Value (in US $ millions)		YoY Percentage Change
	December-06	December-07	
Brazil	254,513	584,951	129.83
Russia	514,362	754,537	46.69
India	638,484	1,107,550	73.47
China	1,635,121	7,791,702	376.52
BRIC Economies	**3,042,480**	**10,238,740**	**236.53**
Emerging Market Economies	**8,226,944**	**16,361,131**	**98.87**
World Total	**67,485,359**	**98,816,305**	**46.43**
Percentage share of BRIC Economies to			
1) Total turnover of Emerging Economies	36.98	62.58	
2) Total turnover of World	4.51	10.36	

Source:S&P Global Stock Markets Factbook 2008

Market Capitalisation - Growth and Distribution

The market capitalisation for securities available for trading on the equity segment of NSE and BSE witnessed enormous growth over the previous years (Table 4-6). The market capitalisation of NSE and BSE as at end March 2008 amounted to Rs. 48,581,217 million (US $ 1,215,442 million) and Rs. 51,380,140 million (US $ 1,285,468 million) respectively.

The sectoral distribution of top '50' companies based on their market capitalization and trading volumes on NSE is presented in (Table 4-8). A similar trend is noticed in few of the sectors classified on basis of market capitalization when compared to the trading volumes. For eg. The Infrastructure sector saw a high growth where the share of market capitalization increased from 7.06 % in 2006-07 to 17.05 % in 2007-08 while the IT sector witnessed a fall in the market capitalization form 18.14 % in 2006-07 to 7.95 % in the current year.

During the year 2007-08. The petrochemicals sector was the most dominant sector in terms of market capitalization and reported a significant share of 22.94 % followed by the manufacturing sector with its share of 22.51 %. During the first quarter of the fiscal 2008-09 the petrochemicals sector sustained it dominance with the highest share of 25.14 %. Once again followed by the manufacturing sector – 20.88%. On the other hand the Infrastructure sector saw a slight decrease, its share dropped to 13.66 %. The share of the IT Sector rose to 11.06 % .

World Market Capitalisation

In 2007, United States reported the highest market capitalisation of US $ 19,947,284 million followed by China at US$ 6,226,305 million and Japan at US $4,453,475 million. Among the top 20 countries by Market Capitalisation, 22 were from the developed markets while the other 18 were from the emerging market economies. India ranked 8th in the world with the market capitalization of US $ 1,819,101 million. (Table 4-13).

Table 4-13: Market Capitalisation of top 40 countries

Rank	Country	End December 2007 Market capitalisation (US$ million)
1	United States	19,947,284
2	**China**	**6,226,305**
3	Japan	4,453,475
4	United Kingdom	3,851,706
5	France	2,771,217
6	Canada	2,186,550
7	Germany	2,105,506
8	**India**	**1,819,101**
9	Spain	1,800,097
10	**Russia**	**1,503,011**
11	**Brazil**	**1,370,377**
12	Australia	1,298,429
13	Swizerland	1,274,516
14	Hong Kong	1,162,566
15	**Korea**	**1,123,633**
16	Italy	1,072,692
17	Netherlands	956,469
18	**South Africa**	**833,548**
19	**Taiwan**	**723,687**
20	Sweden	612,497
21	**Saudi Arabia**	**515,111**
22	**Mexico**	**397,725**
23	Belgium	386,362
24	Finland	369,168
25	Norway	357,420
26	Singapore	353,489
27	**Malaysia**	**325,663**
28	**Turkey**	**286,572**
29	Denmark	277,746
30	Greece	264,942
31	**Israel**	**236,361**
32	Austria	228,707
33	**United Arab Emirates**	**224,675**
34	**Chile**	**212,910**
35	**Indonesia**	**211,693**
36	**Poland**	**207,322**
37	**Thailand**	**196,046**
38	**Kuwait**	**188,046**
39	Luxembourg	166,102
40	Ireland	144,026

Source:S&P Fact Book 2008

Emerging markets

Developed markets

Among the BRIC Economies, the highest market capitalisation at the end of 2007 was recorded by China at US$ 6,226,305 million, followed by India at US$ 1,819,101 million. China recorded the highest year-on-year increase of 156.61 % in its market capitalization. (Table 4-14). The BRIC Economies contributed a share of 59.79 % of the market capitalization of the emerging economies during 2007. The contribution of BRIC Economies in total world market capitalisation too augmented from 9.39 % in 2006 to 16.91 % in 2007.

Table 4-14: Market capitalisation of BRIC Economies

Country	Market Capilisation (in US $ Millions)		YoY Percentage Change
	December-06	December-07	
China	2,426,326	6,226,305	**156.61**
India	818,879	1,819,101	**122.15**
Russia	1,057,189	1,503,011	**42.17**
Brazil	711,100	1,370,377	**92.71**
BRIC Economies	**5,013,494**	**10,918,794**	**117.79**
Emerging Market Economies	**10,458,582**	**18,262,550**	**74.62**
World Total	**53,375,287**	**64,563,414**	**20.96**
Percentage share of BRIC Economies to			
1) Total Market capitalisationof Emerging Economies	47.94	59.79	
2) Total Market Capitalisation of World	9.39	16.91	

Source:S&P Global Stock Markets Factbook 2008

Market Movements

The movement of few of the selected indices placed in table 4-15 clearly brings about the trends witnessed in the Indian and foreign markets. A global comparison of these selected indices during the year 2007-08 with the last fiscal 2006-07 shows a varied kind of performance. The American and Europe markets witnessed a drop in their index levels. The point to point return of NASDAQ was -5.89 %. Similarly, the returns on Dow Jones, FTSE 100 and CAC indices dropped down to -0.74 %, -9.61 % and -16.45 % respectively. On the other hand during the same period index levels of Nifty 50, Sensex, Hang Seng and TAI posted positive point to point returns. Nifty 50 saw the highest point to point return of 23.89%. However the market in Japan - Nikkei index posted a negative return of -27-55 %.

Table 4-15: Movement of Select Indices on Indian & Foreign Markets

Region	Index - Country	31.03.2006	30.03.2007	31.03.2008	30.06.2008	Change during 2006-07 (%)	Change during 2007-08 (%)	Change during March 08-June 08 (%)
Americas	Dow Jones	11109.32	12354.35	12262.89	11350.01	11.21	-0.74	-7.44
	Nasdaq	2339.79	2421.64	2279.10	2292.98	3.50	-5.89	0.61
Europe	FTSE 100- UK	5964.60	6308.00	5702.10	5625.90	5.76	-9.61	-1.34
	CAC- France	5220.85	5634.16	4707.07	4434.85	7.92	-16.45	-5.78
Asia Pacific	Nifty 50 (S&P CNX Nifty)- India	3402.55	3821.55	4734.50	4040.55	12.31	23.89	-14.66
	BSE Sensex- India	11280.00	13072.10	15644.44	13461.60	15.89	19.68	-13.95
	Hang Seng- Hong Kong (China)	15805.04	19800.93	22849.20	22102.01	25.28	15.39	-3.27
	Nikkei- Japan	17059.66	17287.65	12525.54	13481.38	1.34	-27.55	7.63
	TAI- Taiwan	6613.97	7884.41	8572.59	7523.54	19.21	8.73	-12.24

Source: NSE, BSE & Bloomberg.

The first quarter of the fiscal 2008-09, shows a downbeat in the index levels of most of the indices. The Nikkei and the NASDAQ were the two indices which stirred up and yielded a point to point return of 7.63 % and 0.61 % respectively.

Chart 4-1: Movement of Nifty, Sensex and NASDAQ, 2007-08

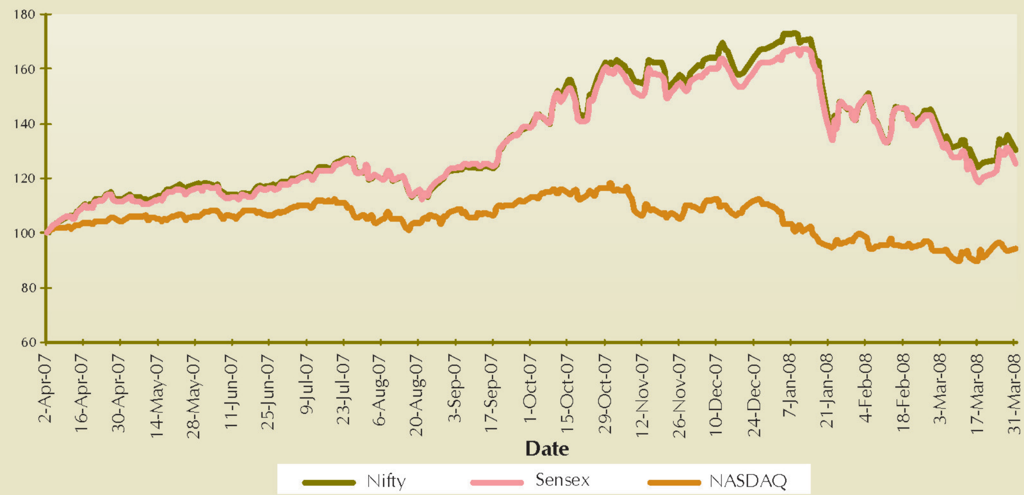
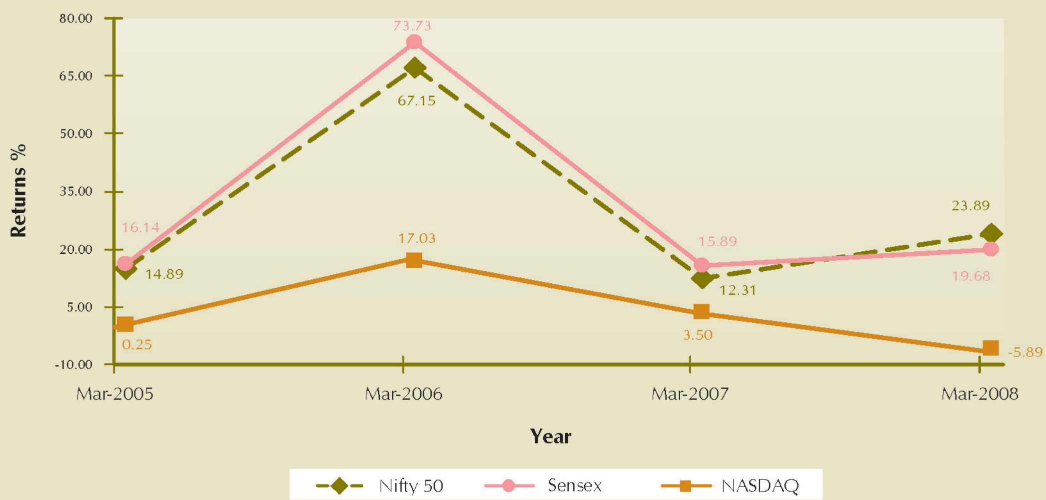


Chart 4-2: Stock Market Returns



Volatility

The volatility of S&P CNX Nifty (Nifty 50) and Sensex since April 2007 is presented in (Table 4-16). The stock markets witnessed maximum volatility during the period January 2008 to March 2008, where the volatility of S&P CNX Nifty (Nifty 50) was 3.29% in January 2008 and the volatility of Sensex 3.21 % in March 2008. The volatility was the lowest at the start of the financial 2007-08. The volatility for S&P CNX Nifty and Sensex was 0.85 % and 0.80 % respectively in May 2008. Volatility of S&P CNX Nifty (Nifty 50), Sensex and NASDAQ is also plotted in (Chart 4-3). It can be observed that the S&P CNX Nifty and (Nifty 50) and Sensex indices were extremely volatile in comparison to the NASDAQ Composite for most of the months.

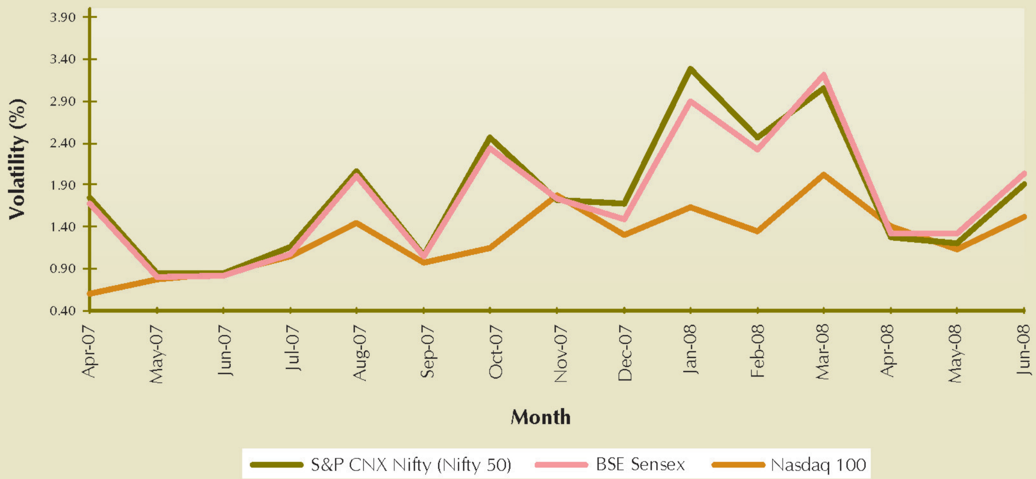
Table 4-16: Stock Market Index, Volatility and P/E Ratio: April 2007 to June 2008

Month/Year	Nifty 50			Sensex		
	Index	Volatility (%)**	P/E Ratio*	Index	Volatility (%)**	P/E Ratio*
Apr-06	3,557.60	1.67	20.31	12,042.56	1.64	21.35
May-06	3,071.05	2.77	17.46	10,398.61	2.55	20.41
Jun-06	3,128.20	3.22	18.44	10,609.25	3.25	17.90
Jul-06	3,143.20	1.93	17.64	10,743.88	1.97	19.02
Aug-06	3,413.90	0.71	19.15	11,699.05	0.67	19.60
Sep-06	3,588.40	1.06	20.92	12,454.42	1.04	20.73
Oct-06	3,744.10	0.93	20.37	12,961.90	0.94	21.56
Nov-06	3,954.50	0.61	21.18	13,696.31	0.58	22.07
Dec-06	3,966.40	1.51	21.26	13,786.91	1.48	22.51
Jan-07	4,082.70	1.15	19.85	14,090.92	1.16	22.73
Feb-07	3,745.30	1.56	18.01	12,938.09	1.54	21.56
Mar-07	3,821.55	2.00	18.40	13,072.10	1.95	19.84
Apr-07	4,087.90	1.75	19.48	13,872.37	1.68	20.75
May-07	4,295.80	0.85	20.41	14,544.46	0.80	20.84
Jun-07	4,318.30	0.84	20.60	14,650.51	0.82	20.67
Jul-07	4,528.85	1.16	20.49	15,550.99	1.07	21.78
Aug-07	4,464.00	2.06	20.20	15,318.60	2.00	19.99
Sep-07	5,021.35	1.06	22.58	17,291.10	1.04	21.69
Oct-07	5,900.65	2.46	25.74	19,837.99	2.34	24.86
Nov-07	5,762.75	1.72	25.21	19,363.19	1.73	25.44
Dec-07	6,138.60	1.67	27.62	20,286.99	1.49	26.94
Jan-08	5,137.45	3.29	21.97	17,648.71	2.89	25.53
Feb-08	5,223.50	2.46	22.27	17,578.72	2.32	22.23
Mar-08	4,734.50	3.06	20.63	15,644.44	3.21	20.18
Apr-08	5,165.90	1.28	22.2	17,287.31	1.40	20.71
May-08	4,870.10	1.21	20.74	16,415.57	1.31	20.66
Jun-08	4,040.55	1.91	17.28	13,461.60	1.93	18.22

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

The volatility across different sectoral indices for the period April 2007 to June 2008 varied widely table (4-18). The CNX Finance index was the most volatile index with the highest volatility during all the months. The month of March 2008 saw the highest volatility of 5.69 % in this index. Extreme volatility amongst all the sectorial indices was spotted in the months of January 08 and March 08.

Chart 4-3: Stock Market Volatility, April 2007- June 2008



Returns in Indian Market

The performance of Nifty 50 and various other indices as at the end of March 2008 and June 2008 of the last one month to 12 months is presented in (Table 4-17). It reveals that almost all the indices have underperformed with varying degrees over varying periods. As at the end of March 2008 all the indices gave negative returns for the shorter periods of 1 month, 3 months and longer periods of 6 months. For the 1 year period all the indices gave encouraging returns with the exception of CNX IT Index.

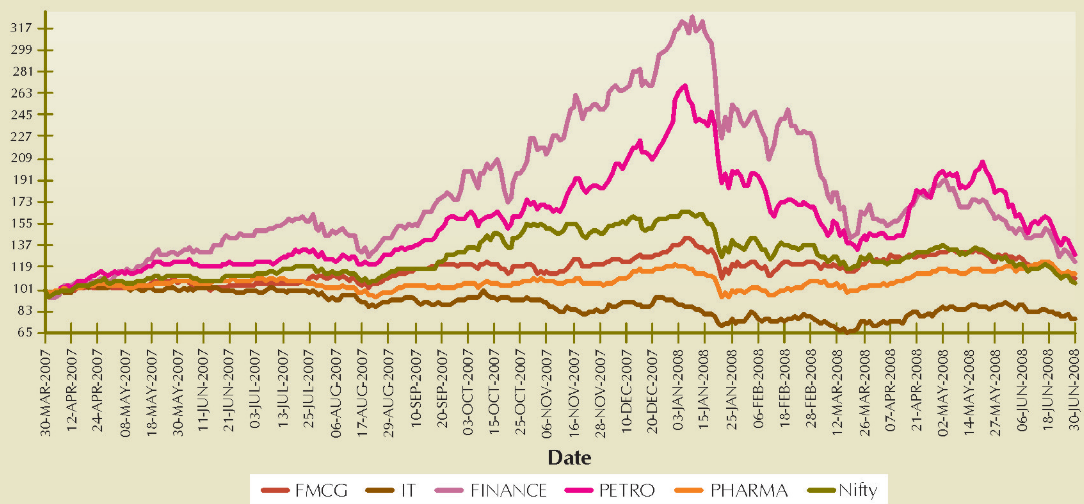
Table 4-17: Performance of Select Indices - NSE

As at end March 2008- In per cent				
	1 month	3 month	6 month	1 year
S&P CNX Nifty	-9.36	-22.87	-5.71	23.89
S&P CNX 500	-12.27	-28.55	-8.66	21.64
S&P CNX Defty	-9.33	-23.96	-6.25	35.01
CNX Nifty junior	-17.23	-36.13	-18.79	15.96
CNX Midcap	-13.87	-32.17	-9.12	28.67
CNX IT Index	-7.02	-23.02	-22.88	-28.49
S&P CNX Banks	-22.98	-32.32	-17.45	25.96
As at end June 2008- In per cent				
	1 month	3 month	6 month	1 year
S&P CNX Nifty	-17.03	-14.66	-34.18	-6.43
S&P CNX 500	-19.1	-16.27	-40.18	-11.65
S&P CNX Defty	-17.93	-20.64	-39.66	-11.27
CNX Nifty junior	-24.18	-21.85	-50.09	-28.35
CNX Midcap	-20.17	-16.05	-43.06	-12.35
CNX IT Index	-14.69	7.95	-16.9	-22.97
S&P CNX Banks	-23.85	-24.63	-48.99	-25.05

On the other hand the performance of all the indices of the last 1 month to 12 month as at the end of June 2008 was remarkably poor. The CNX IT Index was only index which gave a positive return of 7.95 % for the 3 month period. All the rest of the indices underperformed with negative returns.

The comparative performance of five major sectoral indices, *viz*. S&P CNX Petrochemicals Index, S&P CNX Finance Index, CNX FMCG Index, S&P CNX Pharma Index, and CNX IT Index, with that of Nifty 50 Index for the period April 2007-June 2008 is presented in (Chart 4-4). During the financial 2007-08 the CNX Finance Index was the best performer and scored above all the indices through out the period succeeded by the Petrochemicals Index. However a revisal of positions took place in the first quarter of the fiscal 2008-09. The Petrochemicals index scaled above the Finance index and stood at the first position. seconded by the Finance index.

Chart 4-4: Movement of Nifty 50 and Sectoral Indices, April 2007-June 2008



The other three indices - CNX IT, CNX FMCG and Pharmaceuticals scored below the Nifty-50 almost throughout the fiscal 2007-08. During the first quarter of the fiscal 2008-09 the Pharmaceuticlas showed some momentum however could not sustain itself for a longer time and ended below the Nifty. The FMCG index emerged out in the last month of the quarter and scored above the Nifty. The CNX IT was worst performing index . The monthly closing prices of these sectoral indices are presented in (Table 4-18).

Table 4-18: Performance of Sectoral Indices

Month/ Year	Monthly Closing Prices						Average Daily Volatility (%)					
	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petro-chemicals	S&P CNX Pharma-ceuticals	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petro-chemi-cals	S&P CNX Phar-maceu-ticals
Apr-07	4087.90	4825.77	5418.40	3177.92	3635.68	4504.06	1.75	1.53	1.9	2.12	1.49	1.24
May-07	4295.80	5135.35	5218.35	3859.85	3993.94	4722.32	0.85	0.96	0.96	1.80	1.11	0.73
Jun-07	4318.30	4960.32	5192.30	4285.56	3940.59	4720.28	0.84	0.74	0.82	1.35	1.00	0.69
Jul-07	4528.85	5337.74	5086.70	4548.29	4209.92	4544.89	1.16	1.24	1.36	1.94	1.42	0.85

Contd.

Contd.

Month/ Year	Monthly Closing Prices						Average Daily Volatility (%)					
	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petro-chemicals	S&P CNX Pharma-ceuticals	S&P CNX Nifty (Nifty 50)	S&P CNX FMCG	S&P CNX IT	Finance	S&P CNX Petro-chemicals	S&P CNX Pharmaceuticals
Aug-07	4464.00	5291.81	4813.20	4402.57	4310.15	4355.23	2.06	1.64	1.88	3.24	2.08	1.37
Sep-07	5021.35	5756.72	4804.20	5406.37	5088.99	4570.70	1.06	0.89	1.49	1.86	1.26	0.79
Oct-07	5900.65	5636.75	4793.65	6634.62	5542.01	4756.21	2.46	1.70	1.69	4.41	2.62	1.30
Nov-07	5762.75	5830.23	4431.15	7492.02	6048.49	4585.66	1.72	1.89	1.82	2.77	2.12	1.06
Dec-07	6138.60	6329.60	4812.60	8907.97	7526.89	5244.88	1.67	1.11	1.91	2.32	2.14	1.37
Jan-08	5137.45	5674.00	3838.15	6965.67	5999.40	4295.48	3.29	3.41	2.77	5.10	4.86	2.92
Feb-08	5223.50	5881.53	3984.50	6579.58	5414.53	4670.76	2.46	2.20	2.71	3.34	2.64	1.52
Mar-08	4734.50	5817.72	3704.95	4715.80	4664.27	4549.10	3.06	1.82	3.46	5.69	3.70	1.96
Apr-08	5165.90	6228.03	4357.65	5500.64	6333.56	5113.00	1.28	1.34	2.50	1.73	2.90	-0.95
May-08	4870.10	6091.79	4688.35	4653.99	5778.76	5213.16	1.21	1.42	1.66	2.00	2.37	0.93
Jun-08	4040.55	5202.74	3999.40	3643.40	4163.30	4957.40	1.91	1.48	2.24	2.76	3.35	1.36

* * Volatility is calculated as standard deviation of the Natural Log of returns of indices for the respective period
Source: IISL.

Exchange Traded Funds

The first ETF in India, the "Nifty BeEs (Nifty Benchmark Exchange Traded Scheme) based on Nifty 50 was launched in December 2001 by Benchmark Mutual Fund. It is bought and sold like any other stock on NSE and has all characteristics of an index fund. As of June end 2008, there were 13 ETFs listed on NSE. The ETF based on Sensex is SPICE (Sensex Prudential ICICI Exchange Traded Fund) which was launched by -Prudential ICICI. During the period April 2007 to June 2008 the total trading volume of the 13 ETFs listed on NSE was Rs. 29,761 million. (US $ 726.12 million). Details about ETFs are available in Chapter 3.

Liquidity

Many listed securities on stock exchanges are not traded actively. The percentage of companies traded on BSE is was quite low in comparison to that on NSE. In June 2008 only 34.93% of companies traded on BSE while 99.52 % of companies traded on NSE. (Table 4-19).

Table 4-19: Trading Frequency on NSE & BSE

Month/Year	NSE			BSE		
	Companies Available for Trading*	Companies Traded	% of Traded to Available for Trading	Listed Securities *	Traded Securities	% of Traded to Listed Securities
Apr-06	944	935	99.05	7,336	2,425	33.06
May-06	952	943	99.05	7,408	2,460	33.21
Jun-06	962	950	98.75	7490	2459	32.83
Jul-06	956	950	99.37	7,466	2,500	33.49
Aug-06	958	949	99.06	7,407	2,590	34.97
Sep-06	969	968	99.90	7,505	2,567	34.20
Oct-06	981	973	99.18	7,484	2,575	34.41
Nov-06	991	982	99.09	7,412	2,620	35.35

Contd.

Contd.

Month/Year	NSE			BSE		
	Companies Available for Trading*	Companies Traded	% of Traded to Available for Trading	Listed Securities *	Traded Securities	% of Traded to Listed Securities
Dec-06	1,016	1,009	99.31	7,500	2,692	35.89
Jan-07	1,040	1,035	99.52	7,553	2,689	35.60
Feb-07	1,063	1,057	99.44	7,596	2,602	34.25
Mar-07	1,084	1,081	99.72	7,561	2,641	34.93
Apr-07	1,104	1,088	98.55	7,591	2,567	33.82
May-07	1,126	1,113	98.85	7,635	2,674	35.02
Jun-07	1,143	1,130	98.86	7,707	2,728	35.40
Jul-07	1,150	1,140	99.13	7,753	2,749	35.46
Aug-07	1,170	1,166	99.66	7,806	2,775	35.55
Sep-07	1,173	1,116	95.14	7,803	2,741	35.13
Oct-07	1,180	1,176	99.66	7,683	2,778	36.29
Nov-07	1,197	1,189	99.33	7,732	2,833	36.64
Dec-07	1,207	1,202	99.59	7,706	2,904	37.68
Jan-08	1,216	1,210	99.51	7,799	2,839	36.40
Feb-08	1,227	1,226	99.92	7,811	2,792	35.74
Mar-08	1,236	1,229	99.43	7,757	2,746	35.40
Apr-08	1,244	1,240	99.68	7,740	2,740	35.40
May-08	1,252	1,246	99.52	7,867	2,771	35.22
Jun-08	1,262	1,256	99.52	7,885	2,716	34.45

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

Table 4-20: Frequency Distribution of Companies Traded at NSE and BSE

No. of Days Traded	No. of Securities Traded at NSE		No. of Securities Traded at BSE	
	2007-08	% to Total	2007-08	% to Total
Above 100 days	1,177	92.97	2878	89.41
91-100 days	5	0.39	17	0.53
81-90 days	17	1.34	18	0.56
71-80 days	7	0.55	18	0.56
61-70 days	11	0.87	21	0.65
51-60 days	7	0.55	21	0.65
41-50 days	7	0.55	17	0.53
31-40 days	6	0.47	17	0.53
21-30 days	9	0.71	37	1.15
11-20 days	13	1.03	50	1.55
1-10 days	7	0.55	125	3.88
Total	**1,266**	**100.00**	**3219**	**100.00**

*Source:*SEBI & NSE.

The companies traded on BSE for more than 100 days during 2007-08 was 89.32% and that on NSE, was 92.97 %

(Table 4-20). Trading took place for less than 100 days in case of 10.68 % of companies traded at BSE and 7.03 % for companies traded on NSE during the year.

Takeovers

In 2007-08, there were 114 takeovers under open category involving Rs. 287,070 million (US $ 7,182 million) as against 87 takeovers involving Rs. 113,520 million (US $ 2,604 million) during the preceding year (Table 4-21). Under the exempted category there were 232 takeovers involving Rs 64,580 million (US $ 1,616 million) as against 223 takeovers involving Rs. 186,080 million (US $ 4,269 million) in the previous year.

Table 4-21: Substantial Acquisition of Shares and Takeovers

Year	Open Offers									Automatic Exemption		
	Objectives						Total			Number	Value of Shares Acquired	
	Change in Control of Management		Consolidation of Holdings		Substantial Acquisition							
	Number	Value (Rs.mn)	Number	Value (Rs.mn)	Number	Value (Rs. mn)	Number	Value (Rs.mn)	Value (US $ mn)		(Rs. mn)	(US $ mn)
1994-95	0	0	1	1,140	1	42	2	1,182	–	–	–	–
1995-96	4	301	4	255	0	0	8	556	–	–	–	–
1996-97	11	118	7	783	1	23	19	924	–	–	–	–
1997-98	18	1,429	10	3,398	13	956	41	5,784	–	93	35,022	–
1998-99	29	997	24	4,163	12	3,271	65	8,430	199	201	18,881	445
1999-00	42	2,588	9	711	23	1,300	74	4,599	105	252	46,774	1,072
2000-01	70	11,404	5	1,890	2	425	77	13,719	294	248	48,732	1,045
2001-02	54	17,562	26	18,152	1	390	81	36,104	740	276	25,390	520
2002-03	46	38,144	40	25,733	2	14	88	63,891	1,345	238	24,284	511
2003-04	38	3,952	16	1,966	11	10,030	65	15,948	368	171	14,357	331
2004-05	35	35,030	12	1,650	14	9,640	61	46,320	1,059	212	69,580	1,590
2005-06	78	32,520	9	1,190	15	7,090	102	40,800	915	245	171,320	3,840
2006-07	66	67,710	15	44,980	6	830	87	113,520	2,604	223	186,080	4,269
2007-08	78	116,570	28	132,540	8	37,960	114	287,070	7,182	232	64,580	1,616
April 2008-June 2008	27	6,510	6	3,410	1	960	34	10,880	253	83	41,860	975
Total	**596**	**334,836**	**212**	**241,961**	**110**	**72,931**	**918**	**649,728**	**15,064**	**2,474**	**746,860**	**16,215**

Source: SEBI.

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

	Exchanges	Participants at the end March							
		Registered Brokers				Registered Sub-Brokers			
		2005	2006	2007	2008	2005	2006	2007	2008
1	Ahmedabad	317	317	317	321	119	119	97	97
2	Bangalore	250	256	256	256	156	156	156	156
3	BSE	726	840	901	946	6,917	10,691	13,482	20,616
4	Bhubaneshwar	221	219	216	214	17	17	17	17
5	Calcutta	962	962	960	957	88	88	87	87
6	Cochin	446	434	432	435	42	42	42	42
7	Coimbatore	135	135	135	135	22	22	21	21
8	Delhi	376	375	374	374	343	343	292	277
9	Gauhati	119	110	104	103	4	4	4	4
10	ICSEIL	654	788	925	935	3	3	3	3
11	Jaipur	522	507	492	488	34	34	33	33
12	Ludhiana	293	293	293	297	38	38	37	37
13	Madhya Pradesh	174	174	174	174	5	5	5	5
14	Madras	178	182	181	181	115	115	112	112
15	NSEIL	976	1,014	1,077	1,129	5,338	11,359	12,724	22,144
16	OTCEI	801	769	752	719	19	19	19	19
17	Pune	186	192	188	188	161	161	158	158
18	Uttar Pradesh	504	463	384	354	19	19	14	8
19	Vadodara	311	311	311	311	41	41	38	38
	Total *	**9,128**	**9,335**	**9,443**	**9,487**	**13,684**	**23,479**	**27,540**	**44,074**

** Also includes the Brokers and Sub-Brokers from the derecognised Stock Exchanges*
Source: SEBI

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

Month/ Year	No. of Trading Days	No. of Companies Traded	No. of Trades (mn.)	Traded Quantity (mn.)	Turnover (Rs. mn.)	Average Daily Turnover (Rs. mn.)	Turnover Ratio (%)	Demat Securities Traded (mn.)	Demat Turnover (Rs. mn.)	Demat Turnover as a % of Total Turnover	Market Capitalisation (Rs. mn.) *
Nov 94-Mar 95	**102**	–	**0.3**	**139**	**18,050**	**177**	**0.50**	–	–	0	**3,633,500**
1995-96	**246**	–	**7**	**3,991**	**672,870**	**2,735**	**16.76**	–	–	0	**4,014,590**
1996-97	**250**	–	**26**	**13,556**	**2,954,030**	**11,816**	**70.44**	–	–	0	**4,193,670**
1997-98	**244**	–	**38**	**13,569**	**3,701,930**	**15,172**	**76.88**	–	–	0	**4,815,030**
1998-1999	**251**	–	**55**	**16,533**	**4,144,740**	**16,513**	**84.38**	**854**	**238,180**	**5.75**	**4,911,751**
1999-2000	**254**	–	**98**	**24,270**	**8,390,515**	**33,034**	**82.23**	**15,377**	**7,117,057**	**84.82**	**10,204,257**
2000-01	**251**	**1201**	**168**	**32,954**	**13,395,102**	**53,367**	**203.62**	**30,722**	**12,643,372**	**94.39**	**6,578,470**
2001-02	**247**	**1,019**	**175**	**27,841**	**5,131,674**	**20,776**	**80.58**	**27,772**	**5,128,661**	**99.94**	**6,368,610**
2002-03	**251**	**899**	**240**	**36,407**	**6,179,886**	**24,621**	**115.05**	**36,405**	**6,179,845**	**100.00**	**5,371,332**
2003-04	**254**	**804**	**379**	**71,330**	**10,995,339**	**43,289**	**98.09**	**71,330**	**10,995,339**	**100.00**	**11,209,760**
2004-05	**253**	**856**	**451**	**79,769**	**11,400,720**	**45,062**	**71.90**	**79,769**	**11,400,720**	**100.00**	**15,855,853**
2005-06	**251**	**928**	**609**	**84,449**	**15,695,579**	**62,532**	**55.79**	**84,449**	**15,695,579**	**100.00**	**28,132,007**
Apr-06	18	935	57	7,289	1,773,724	98,540	—	7,289	1,773,724	100.00	29,901,998
May-06	22	943	69	9,537	2,014,090	91,550	—	9,537	2,014,090	100.00	26,126,387
Jun-06	23	950	67	6,675	1,510,500	65,674	—	6,675	1,510,500	100.00	25,246,594
Jul-06	21	950	54	4,615	1,186,983	56,523	—	4,615	1,186,983	100.00	25,142,609
Aug-06	22	949	63	5,644	1,307,960	59,453	—	5,644	1,307,960	100.00	27,774,010
Sep-06	21	968	65	6,439	1,443,388	68,733	—	6,439	1,443,388	100.00	29,941,316
Oct-06	20	973	58	6,082	1,383,822	69,191	—	6,082	1,383,822	100.00	31,383,194
Nov-06	22	982	75	7,307	1,898,635	86,302	—	7,307	1,898,635	100.00	33,736,518
Dec-06	20	1,009	67	5,858	1,701,054	85,053	—	5,858	1,701,054	100.00	34,262,356
Jan-07	20	1,035	70	8,835	1,751,470	87,573	—	8,835	1,751,470	100.00	35,714,874
Feb-07	19	1,057	70	8,981	1,801,702	94,826	—	8,981	1,801,702	100.00	32,969,306
Mar-07	21	1,081	71	8,284	1,679,537	79,978	—	8,284	1,679,537	100.00	33,673,500
2006-07	**249**	**1,114**	**785**	**85,546**	**19,452,865**	**78,124**	**57.77**	**85,546**	**19,452,865**	**100.00**	**33,673,500**
Apr-2007	20	1,088	68	7,708	1,685,665	84,283	—	7,708	1,685,665	100.00	36,503,677
May-2007	21	1,113	80	9,791	2,075,852	98,850	—	9,791	2,075,852	100.00	38,980,783
Jun-2007	21	1,130	75	7,964	1,936,482	92,213	—	7,964	1,936,482	100.00	39,783,807
Jul-2007	22	1,140	90	10,532	2,672,269	121,467	—	10,532	2,672,269	100.00	43,175,715
Aug-2007	22	1,166	87	10,622	2,312,406	105,109	—	10,622	2,312,406	100.00	42,969,941
Sep-2007	20	1,116	92	14,380	2,660,497	133,025	—	14,380	2,660,497	100.00	48,865,608
Oct-2007	22	1,176	123	17,095	4,555,894	207,086	—	17,095	4,555,894	100.00	57,222,271
Nov-2007	22	1,189	118	17,059	4,144,195	188,372	—	17,059	4,144,195	100.00	58,767,421
Dec-2007	19	1,202	109	16,397	3,663,854	192,834	—	16,397	3,663,854	100.00	65,432,719
Jan-2008	23	1,210	125	16,682	4,471,378	194,408	—	16,682	4,471,378	100.00	52,953,868
Feb-2008	21	1,226	107	11,359	2,801,764	133,417	—	11,359	2,801,764	100.00	54,199,423
Mar-2008	18	1,229	99	10,260	2,530,125	140,562	—	10,260	2,530,125	100.00	48,581,217
2007-08	**251**	**1,244**	**1,173**	**149,847**	**35,510,382**	**141,476**	**73.09**	**149,847**	**35,510,382**	**100.00**	**48,581,217**
Apr-08	20	1,240	108	11,428	2,712,269	135,613	—	11,428	2,712,269	100.00	54,427,796
May-08	20	1,246	107	11,501	2,779,229	138,961	—	11,501	2,779,229	100.00	50,988,729
Jun-08	21	1,256	111	10,855	2,644,282	125,918	—	10,855	2,644,282	100.00	41,036,509
April-June 08	**61**	**1,236**	**326**	**33,784**	**8,135,781**	**133,373**	**19.83**	**33,784**	**8,135,781**	**100.00**	**41,036,509**

* At the end of the period.
Source: NSE

Annexure 4-3: S&P CNX Nifty Index (Nifty 50)

SL No.	Security	Industry	Market Capitalisa-tion (Rs.million)	Weight-age (%)	Beta	R^2	Volatil-ity	Mon-thly Return	Avg. Impact Cost Mar 08
1	Hindalco India Limited	Aluminium	202,608	0.71	1.19	0.50	5.29	-18.51	0.11
2	National Aluminium Company Limited	Aluminium	291,099	1.02	0.76	0.18	3.72	-2.66	0.15
3	Mahindra & Mahindra Ltd.	Automobile - 4 wheelers	171,294	0.60	0.76	0.40	1.83	0.77	0.11
4	Maruti Udyog Limited	Automobile - 4 wheelers	238,929	0.84	0.68	0.34	2.33	-4.75	0.08
5	Tata Motors Limited	Automobile - 4 wheelers	240,053	0.84	0.77	0.46	2.80	-11.09	0.09
6	Hero Honda Motors Ltd.	Automohiles - 2 and 3 wheelers	138,693	0.49	0.45	0.18	2.33	-8.81	0.12
7	HDFC Bank Ltd	Banks	471,839	1.66	0.93	0.50	3.74	-8.62	0.09
8	ICICI Bank Ltd	Banks	855,118	3.00	1.10	0.55	5.35	-29.32	0.09
9	Punjab National Bank	Banks	160,883	0.56	1.03	0.49	3.72	-15.43	0.09
10	State Bank of India	Banks	1,010,652	3.55	0.99	0.52	3.65	-24.22	0.08
11	ACC Limited	Cement & Cement Products	155,015	0.54	0.79	0.34	2.92	3.79	0.07
12	Ambuja Cement Limited	Cement & Cement Products	184,284	0.65	0.37	0.18	1.79	0.08	0.12
13	Grasim Industries Ltd.	Cement & Cement Products	236,089	0.83	0.80	0.53	2.86	-10.62	0.10
14	ITC Ltd.	Cigarettes	777,001	2.73	0.67	0.32	2.79	1.73	0.08
15	HCL Technologies Ltd	Computers - Software	168,448	0.59	0.87	0.37	4.62	-8.79	0.13
16	Infosys Technologies Ltd.	Computers - Software	823,617	2.89	0.62	0.30	4.01	-7.00	0.08
17	Satyam Computer Services Ltd	Computers - Software	265,708	0.93	0.64	0.24	3.93	-9.28	0.08
18	Tata Consultancy Services Limited	Computers - Software	793,115	2.78	0.68	0.40	3.30	-7.63	0.10
19	Wipro Ltd	Computers - Software	631,443	2.22	0.69	0.35	4.39	-1.13	0.13
20	DLF Limited	Construction	1,100,896	3.86	1.29	0.55	7.16	-17.24	0.09
21	Unitech Ltd	Construction	448,376	1.57	1.55	0.49	5.79	-23.26	0.11
22	Hindustan Uniliver Limited	Diversified	498,323	1.75	0.58	0.25	2.85	0.57	0.09
23	ABB Limited	Electrical Equipment	250,041	0.88	0.83	0.48	3.41	2.13	0.11
24	Bharat Heavy Electricals Ltd	Electrical Equipment	1,009,072	3.54	1.10	0.58	4.11	-9.86	0.09
25	Siemens Ltd	Electrical Equipment	207,826	0.73	0.87	0.38	4.13	-24.56	0.11
26	Suzlon Energy Limited	Electrical Equipment	394,891	1.39	1.09	0.34	5.80	-6.25	0.11
27	Larsen & Toubro Limited	Engineering	887,017	3.11	1.04	0.52	4.75	-13.78	0.08
28	Housing Development Finance Corporation Ltd.	Finance - Housing	675,598	2.37	0.90	0.40	5.31	-14.90	0.08
29	GAIL (India) Limited	Gas	359,782	1.26	0.94	0.38	3.13	0.48	0.09
30	Zee Entertainment Enterprises Ltd	Media & Entertainment	106,679	0.37	0.78	0.30	3.06	1.61	0.12
31	Sterlite Industries (India) Limited	Metals	506,213	1.78	1.28	0.55	4.23	-14.45	0.12
32	Cairn India Limited	Oil Exploration	398,717	1.40	0.95	0.41	5.58	-1.97	0.11

Contd.

Contd.

SL No.	Security	Industry	Market Capitalisa-tion (Rs.million)	Weight-age (%)	Beta	R^2	Volatil-ity	Mon-thly Return	Avg. Impact Cost Mar 08
33	Oil & Natural Gas Corpn Ltd	Oil Exploration	2,097,271	7.36	1.10	0.64	3.27	-3.60	0.10
34	Cipla Ltd.	Pharmaceuticals	171,004	0.60	0.53	0.21	2.63	6.23	0.09
35	Dr. Reddy's Laboratories Ltd.	Pharmaceuticals	99,432	0.35	0.44	0.23	2.25	1.29	0.11
36	Ranbaxy Laboratories Ltd	Pharmaceuticals	163,609	0.57	0.60	0.31	2.45	-1.64	0.08
37	Sun Pharmaceuticals Industries Ltd	Pharmaceuticals	254,619	0.89	0.38	0.11	2.87	0.19	0.12
38	NTPC Limited	Power	1,621,058	5.69	1.17	0.58	3.40	-2.67	0.09
39	Powergrid Corporation of India Limited	Power	413,729	1.45	1.19	0.52	4.83	-10.56	0.09
40	Reliance Energy Limited	Power	295,864	1.04	1.67	0.55	6.41	-20.30	0.09
41	Tata Power Co. Ltd.	Power	257,775	0.90	1.20	0.38	4.21	-16.32	0.12
42	Bharat Petroleum Corpn. Ltd	Refineries	147,708	0.52	0.71	0.20	3.85	-12.10	0.11
43	Reliance Industries Ltd	Refineries	3,293,677	11.56	1.12	0.77	3.50	-8.02	0.08
44	Reliance Petroleum Limited	Refineries	702,900	2.47	1.32	0.48	4.28	-11.15	0.08
45	Steel Authority of India Ltd.	Steel & Steel Products	765,363	2.69	1.47	0.66	4.90	-27.18	0.10
46	Tata Steel Limited	Steel & Steel Products	507,408	1.78	1.15	0.52	5.27	-13.40	0.08
47	Bharti Airtel Limited	Telecommunication - Services	1,568,146	5.50	0.78	0.37	3.31	0.00	0.09
48	Idea Cellular Limited	Telecommunication - Services	270,520	0.95	0.80	0.34	3.41	-6.64	0.14
49	Reliance Communications Limited	Telecommunication - Services	1,052,138	3.69	1.18	0.66	4.05	-11.30	0.08
50	Tata Communications Limited	Telecommunication - Services	146,191	0.51	0.98	0.34	4.26	0.16	0.12
			28,487,729	**100.00**	**1.00**		**3.04**	**-9.36**	**0.09**

* Beta & R^2 are calculated for the period 01-Apr-2007 to 31-Mar-2008
* Beta measures the degree to which any portfolio of stocks is affected as compared to the effect on the market as a whole.
* The coefficient of determination (R^2) measures the strength of relationship between two variables the return on a security versus that of the market.
* Volatility is the Std. deviation of the daily returns for the period 01-Mar-2008 to 31-Mar-2008
* Last day of trading was 31-Mar-2008
* Impact Cost for S&P CNX Nifty is for a portfolio of Rs. 0.5 Crores
* Impact Cost for S&P CNX Nifty is the weightage average impact cost

Capital Market - Clearing and Settlement

Introduction

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

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

- **Clearing Corporation:** The clearing corporation is responsible for post-trade activities such as the risk management and the clearing and settlement of trades executed on a stock exchange.
- **Clearing Members:** Clearing Members are responsible for settling their obligations as determined by the NSCCL. They do so by making available funds and/or securities in the designated accounts with clearing bank/depositories on the date of settlement.
- **Custodians:** Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement. The custodian is required to confirm whether he is going to settle that trade or not. If he confirms to settle that trade, then clearing corporation assigns that particular obligation to him. As on date, there are 11 custodians empanelled with NSCCL. They are Citibank N.A., Deutsche Bank A.G., HDFC Bank Limited, HSBC Limited, ICICI Limited, IL&FS Limited, Standard Chartered Bank, State Bank of India, SHCIL, Kotak Mahendra Bank Ltd., DBS Bank Ltd and Axis Bank.
- **Clearing Banks:** Clearing banks are a key link between the clearing members and Clearing Corporation to effect settlement of funds. Every clearing member is required to open a dedicated clearing account with one of the designated clearing banks. Based on the clearing member's obligation as determined through clearing, the clearing member makes funds available in the clearing account for the pay-in and receives funds in case of a pay-out. There are 13 clearing banks of NSE, *viz.*, Axis Bank Ltd., Bank of India Ltd., Canara Bank Ltd., Citibank N.A, HSBC Ltd., HDFC Bank Ltd., ICICI Bank Ltd., IDBI Bank Ltd., Indusind Bank Ltd., Kotak Mahindra Bank, Standard Chartered Bank, State Bank of India and Union Bank of India
- **Depositories:** Depository holds securities in dematerialized form for the investors in their beneficiary accounts. Each clearing member is required to maintain a clearing pool account with the depositories. He is required to make available the required securities in the designated account on settlement day. The depository runs an electronic file to transfer the securities from accounts of the custodians/clearing member to that of NSCCL and visa-versa as per the schedule of allocation of securities.
- **Professional Clearing Member:** NSCCL admits special category of members known as professional clearing members (PCMs). PCMs may clear and settle trades executed for their clients (individuals, institutions etc.). In such cases, the functions and responsibilities of the PCM are similar to that of the custodians. PCMs also undertake clearing and

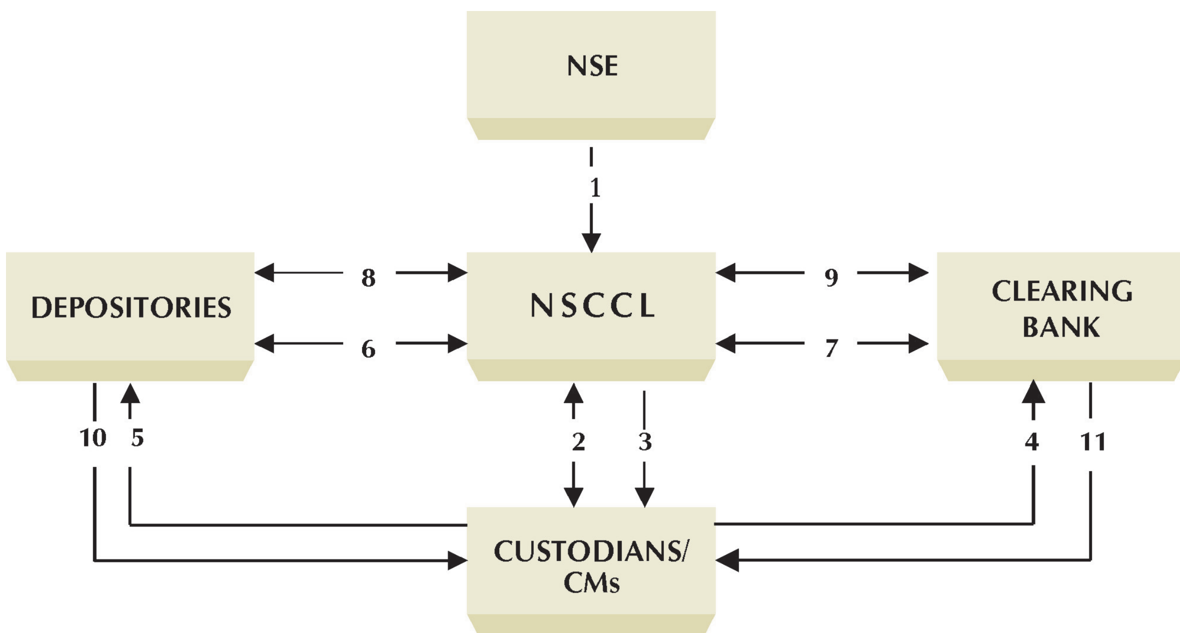
settlement responsibilities of the trading members. The PCM in this case has no trading rights, but has clearing rights i.e. he clears the trades of his associate trading members and institutional clients.

Clearing & Settlement Process

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

The clearing and settlement process for transaction in securities on NSE is presented in (Chart 5-1).

Chart 5-1: Clearing and Settlement Process at NSE



1. Trade details from Exchange to NSCCL (real-time and end of day trade file).
2. NSCCL notifies the consummated trade details to clearing members/custodians 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.

The core processes involved in clearing and settlement include:

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

(b) ***Trade Confirmation*****:** The parties to a trade agree upon the terms of trade like security, quantity, price, and settlement date, but not the counterparty which is the NSCCL. The electronic system automatically generates confirmation by direct participants.

(c) ***Determination of Obligation*****:** The next step is determination of what counter-parties owe, and what counter-parties are due to receive on the settlement date. The NSCCL interposes itself as a central counterparty between 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.

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

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

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

Settlement is deemed to be complete upon declaration and release of pay-out of funds and securities.

Settlement Cycle

NSCCL clears and settles trades as per the well-defined settlement cycles (Table 5-1). All the securities are being traded and settled under T+2 rolling settlement. The NSCCL notifies the relevant trade details to clearing members/custodians on the trade day (T), which are affirmed on T+1 to NSCCL. Based on it, NSCCL nets the positions of counterparties to determine their obligations. A clearing member has to pay-in/pay-out funds and/or securities. The obligations are netted for a member across all securities to determine his fund obligations and he has to either pay or receive funds. Members' pay-in/pay-out obligations are determined latest by T+1 and are forwarded to them on the same day, so that they can settle their obligations on T+2. The securities/funds are paid-in/paid-out on T+2 day to the members' clients' and the settlement is complete in 2 days from the end of the trading day. The settlement cycle for the CM segment are presented in Table 5-1.

Table 5-1: Settlement Cycle in CM Segment

Activity	T+2 Rolling Settlement (From April 1, 2003)
Trading	T
Custodial Confirmation	T+1
Delivery generation	T+1
Securities/Funds Pay-in	T+2
Securities/Funds Pay-out	T+2
Valuation Debit	T+2
Auction	T+3
Bad Delivery Reporting	T+4
Auction Pay-in/Pay-out	T+5
Close Out	T+5
Rectified Bad Delivery Pay-in/Pay-out	T+6
Re-bad Delivery Reporting	T+8
Close Out of Re-bad Delivery	T+9

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

Dematerialised Settlement

NSE along with leading financial institutions established the National Securities Depository Ltd. (NSDL), the first depository in the country, with the objective to reduce the menace of fake/forged and stolen securities and thereby enhance the efficiency of the settlement systems. This has ushered in an era of dematerialized trading and settlement. SEBI, too, has been progressively promoting dematerialisation by mandating settlement only through dematerialized form for more and more securities. The share of demats delivery in total delivery at NSE touched 100% in terms of value during 2007-08.

Settlement Statistics

The details of settlement of trades on CM segment of NSE are provided in Annexure 5.1. There has been a substantial reduction in short and bad deliveries. Short deliveries averaged around 0.27% of total delivery in 2007-08. The ratio of bad deliveries to net deliveries progressively declined to almost negligible in 2007-08.

During 2007-08, taking all stock exchanges together, 29.54% of securities accounting for 28.21% turnover were settled by delivery and the balance were squared up/netted out (Table 5-2). In the preceding year, 33.17% of shares accounting for 28.98% of turnover was settled by delivery. This indicates preference for non-delivery-based trades.

Table 5-2: Delivery Pattern in Stock Exchanges

(In per cent)

Sr. no	Exchange	2006-07		2007-08	
		Quantity	Value	Quantity	Value
1	NSE	28.02	27.92	24.77	27.33
2	BSE	40.96	31.13	36.68	30.16
3	Calcutta	75.28	77.95	90.60	91.03
4	Delhi	0.00	0.00	0.00	0.00
5	Ahmedabad	0.00	0.00	0.00	0.00
6	Uttar Pradesh	0.03	0.08	0.42	0.10
7	Bangalore	0.00	0.00	0.00	0.00
8	Ludhiana	0.00	0.00	0.00	0.00
9	Pune	0.00	0.00	0.00	0.00
10	OTCEI	0.00	0.00	0.00	0.00
11	ISE	0.00	0.00	0.00	0.00
12	Madras	100	100.00	0.00	0.00
13	Vadodara	0.00	0.00	0.00	0.00
14	Bhubaneshwar	0.00	0.00	0.00	0.00
15	Coimbatore	0.00	0.00	0.00	0.00
16	Madhya Pradesh	0.00	0.00	0.00	0.00
17	Jaipur	0.00	0.00	0.00	0.00
18	Gauhati	0.00	0.00	0.00	0.00
19	Cochin	0.00	0.00	0.00	0.00
	Total	**33.17**	**28.98**	**29.54**	**28.21**

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

Risk Management

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

Risk Containment Measures

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

Capital Adequacy

The capital adequacy requirements stipulated by the NSE are substantially in excess of the minimum statutory requirements as also in comparison to those stipulated by other stock exchanges. Corporates seeking membership in the CM and F&O segment are required to have a net worth of Rs. 100 lakh, and keep an interest free security deposit of Rs. 125 lakh and collateral security deposit of Rs. 25 lakh with the Exchange/NSCCL. The deposits kept with the Exchange as part of the membership requirement may be used towards the margin requirement of the member. Additional capital may be provided by the member for taking additional exposure. The capital adequacy norms for Corporates, Individuals/ partnership firms are presented in details in Chapter 4 'Table 4-2 Eligibility Criteria for Trading Membership'.

On-Line Monitoring

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

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

Inspection and Investigation

There is a regulatory requirement that a minimum of 20% of the active trading members in the capital market segment and 50 % of active trading members in the derivatives segment should be inspected every year to verify their level of compliance with various rules, byelaws and regulations of the Exchange. Usually, inspection of more members than the regulatory requirement is undertaken every year. The inspection randomly verifies if the investor interests are being compromised in the conduct of business by the members. On the basis of various alerts further analysis is carried out. If it suggests any possible irregularity such as deviations from the past trends/patterns, concentration of trading at NSE at the member level, then a more detailed investigation is undertaken. If the detailed investigation establishes any irregular activity, then a disciplinary action is initiated against the member. If the investigation suggests suspicions of possible irregular activity across the stock exchanges and/or possible involvement of clients, the same is informed to SEBI.

Margin Requirements

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

- The Stocks which have traded atleast 80% of the days for the previous **six months** constitute the Group I and Group II.
- Out of the scrips identified for Group I & II category, the scrips having mean impact cost of less than or equal to 1% are categorized under Group I and the scrips where the impact cost is more than 1, are categorized under Group II.
- The remaining stocks are classified into Group III.
- The impact cost is calculated on the 15th of each month on a rolling basis considering the order book snapshots of the previous six months. On the basis of the impact cost so calculated, the scrips move from one group to another group from the 1st of the next month.
- For securities that have been listed for less than six months, the trading frequency and the impact cost is computed using the entire trading history of the security

Categorisation of newly listed securities

For the first month and till the time of monthly review a newly listed security is categorised in that Group where the market capitalization of the newly listed security exceeds or equals the market capitalization of 80% of the securities in that particular group. Subsequently, after one month, whenever the next monthly review is carried out, the actual trading frequency and impact cost of the security is computed, to determine the liquidity categorization of the security.

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

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

1) Value at Risk Margin :

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

For the securities listed in Group I, scrip wise daily volatility calculated using the exponentially weighted moving average methodology is applied to daily returns in the same manner as in the derivatives market. 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 is scaled up by root 3.

For the securities listed in Group III, the VaR margin is equal to five times the index VaR and scaled up by root 3.

The index VaR, for the purpose, would be the higher of the daily Index VaR based on NSE Nifty 50 or BSE Sensex. The index VaR would be subject to a minimum of 5%.

Security specific Margin: NSCCL may stipulate security specific margins for the securities from time to time.

The VaR margin rate computed as mentioned above will be charged on the net outstanding position (buy value-sell value) of the respective clients on the respective securities across all open settlements. There would be no netting off of positions across different settlements. The VaR margin shall be collected on an upfront basis by adjusting against the total liquid assets of the member at the time of trade. The VaR margin so collected shall be released on completion of pay-in of the settlement

The VaR numbers are recomputed six times during the day taking into account price and volatilities at various time intervals and are provided on the website of the Exchange.

2) Extreme Loss Margin

The Extreme Loss Margin for any security is be higher of 5%, or 1.5 times the standard deviation of daily logarithmic returns of the security price in the last six months. The Extreme Loss Margin is be collected/ adjusted against the total liquid assets of the member on a real time basis

3) Mark to Market Margin

Mark to market loss is calculated by marking each transaction in security to the closing price of the security at the end of trading. In case the security has not been traded on a particular day, the latest available closing price at the NSE is considered as the closing price. In case the net outstanding position in any security is nil, the difference between the buy and sell values 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 also collected/adjusted from/against the cash/cash equivalent component of the liquid net worth deposited with the Exchange.

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

Close Out Facility

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

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

Index-based Market-wide Circuit Breakers

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.

- In case of a 10% movement in 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 would continue trading.
- In case of a 15% movement of either index, there should 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 should be a one-hour halt. If the 15% trigger is reached on or after 2:00 p.m. the trading should halt for remainder of the day.
- In case of a 20% movement of the index, trading should be halted for the remainder of the day.

NSE may suo moto cancel the orders in the absence of any immediate confirmation from the members that these orders are genuine or for any other reason as it may deem fit. The Exchange views entries of non-genuine orders with utmost seriousness as this has market –wide repercussion. As an additional measure of safety, individual scrip-wise price bands have been fixed as below:

Daily price bands of 2% (either way) on a set of specified securities

Daily price bands of 5% (either way) on a set of specified securities

Daily price bands of 10% (either way) on a set of specified securities

Price bands of 20% (either way) on all the remaining securities (including debentures, warrants, preference shares etc. which are traded on CM segment of NSE),

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

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

Settlement Guarantee Fund

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

Annexure 5-1: Settlement Statistics in CM Segment of NSE

Month/ Year	No. of Trades (mn.)	Traded Quantity (mn.)	Quantity of Shares Deliverable (mn.)	% of Shares Deliverable to Total Shares Traded	Turnover (Rs. mn.)	Value of Shares Deliverable (Rs. mn.)	Turnover (US $. mn.)	Value of Shares Deliverable (US$. mn.)	% of Deliverable to Value of Shares Traded	Securities Pay-in (Rs. mn.)	Short Delivery (Auctioned quantity) (mn.)	% of Short Delivery to Delivery	Unrectified Bad Delivery (Auctioned quantity) (mn.)	% of Unrectified Bad Delivery to Delivery	Funds Pay-in (Rs. mn.)
2005-06	**600**	**81,844**	**22,724**	**27.77**	**15,168,390**	**4,093,525**	**340,022**	**91,762**	**26.99**	**4,079,759**	**89**	**0.39**	**0.00**	**0.00**	**1,314,256**
2006-07	**786**	**85,051**	**23,907**	**28.11**	**19,400,943**	**5,444,345**	**445,078**	**124,899**	**28.06**	**5,430,475**	**77**	**0.32**	**0.00**	**0.00**	**1,731,877**
Apr-07	67	7,664	2,062	26.90	1,681,808	483,490	42,077	1,053	28.75	482,282	5	0.25	0.00	0.00	145,284
May-07	79	9,546	2,464	25.81	1,991,703	556,702	49,830	1,247	27.95	555,296	6	0.26	0.00	0.00	154,308
Jun-07	75	7,791	2,166	27.81	1,921,004	528,252	48,061	1,202	27.50	527,023	6	0.27	0.00	0.00	150,744
Jul-07	89	10,688	3,028	28.33	2,649,495	753,489	66,287	1,658	28.44	751,465	10	0.32	0.00	0.00	209,376
Aug-07	87	10,138	2,575	25.40	2,262,393	637,662	56,602	1,416	28.19	636,508	6	0.24	0.00	0.00	242,642
Sep-07	89	13,586	3,412	25.11	2,528,949	730,520	63,271	1,583	28.89	728,368	9	0.27	0.00	0.00	214,963
Oct-07	121	17,248	4,164	24.14	4,444,070	1,218,218	111,185	2,782	27.41	1,215,614	11	0.26	0.00	0.00	414,170
Nov-07	119	16,962	3,792	22.36	4,151,290	1,074,942	103,860	2,598	25.89	1,072,680	11	0.28	0.00	0.00	316,066
Dec-07	108	16,304	4,047	24.83	3,745,148	1,105,777	93,699	2,344	29.53	1,102,769	13	0.33	0.00	0.00	316,704
Jan-08	126	16,786	4,158	24.77	4,492,612	1,268,081	112,400	2,812	28.23	1,265,517	12	0.29	0.00	0.00	455,242
Feb-08	106	11,192	2,436	21.77	2,813,954	721,231	70,402	1,761	25.63	720,135	5	0.21	0.00	0.00	257,898
Mar-08	98	10,217	2,492	24.39	2,516,759	649,666	62,966	1,575	25.81	648,522	5	0.20	0.00	0.00	218,035
2007-08	**1,165**	**148,123**	**36,797**	**24.84**	**35,199,186**	**9,728,029**	**880,640**	**22,033**	**27.64**	**9,706,179**	**100**	**0.27**	**0.00**	**0.00**	**3,095,432**
Apr-08	107	11,136	2,492	22.38	2,624,229	634,920	65,655	1,529	24.19	633,829	6	0.22	0.00	0.00	193,395
May-08	108	11,550	2,538	21.97	2,789,621	689,028	69,793	1,625	24.70	687,993	5	0.21	0.00	0.00	217,454
Jun-08	112	11,069	2,387	21.57	2,726,970	643,302	68,225	1,588	23.59	642,172	6	0.23	0.00	0.00	222,160
April-June 2008	**327**	**33,755**	**7,417**	**21.97**	**8,140,821**	**1,967,250**	**203,673**	**4,742**	**24.17**	**1,963,994**	**16**	**0.22**	**0.00**	**0.00**	**633,009**

Debt Market [1]

Introduction

The debt market in India comprises mainly of two segments *viz*., the Government securities market consisting of Central and State Governments securities, Zero Coupon Bonds (ZCBs), Floating Rate Bonds (FRBs), T-Bills and the Corporate securities market consisting of FI bonds, PSU bonds, and Debentures/Corporate bonds. Government securities form the major part of the market in terms of outstanding issues, market capitalization and trading value. It sets a benchmark for the rest of the market. The market for debt derivatives have not yet developed appreciably though a market for OTC derivatives in interest rate products exists.

Trends

During 2007-08, the government and corporate sector collectively mobilized Rs. 3,722,501 million (US $ 93,132 million) from primary debt market, a rise of 27.24% as compared to the preceding year (Table 6-1). About 68.77% of the resources were raised by the government (Central and State Governments), while the balance amount was mobilized by the corporate sector through public and private placement issues. The turnover in secondary debt market during 2007-08 aggregated Rs. 56,495,743 million (US $ 1,413,454 million), 57.04% higher than that in the previous year. The share of NSE in total turnover in debt securities witnessed a decline and stood at 5.71% during 2006-07.

Table 6-1: Debt Market: Selected Indicators

Issuer / Securities	Amount raised form Primary Market		Turnover in Secondary Market		Amount raised form Primary Market		Turnover in Secondary Market	
	2006-07 (Rs. mn.)	2007-08 (Rs. mn.)	2006-07 (Rs. mn.)	2007-08 (Rs. mn.)	2006-07 (US $ mn.)	2007-08 (US $ mn.)	2006-07 (US $ mn.)	2007-08 (US $ mn.)
Government	2,001,980	2,559,840	35,833,370*	56,273,470*	45,928	64,044	822,055	1,407,893
Corporate/Non Government	923,552	1,162,661	140,938	222,273	21,187	29,088	3,233	5,561
Total	**2,925,532**	**3,722,501**	**35,974,308**	**56,495,743**	**67,115**	**93,132**	**825,288**	**1,413,454**

* includes NDS-OM turnover
Source : Primedatabase, RBI and NSE.

1 This chapter discusses the market design and outcome in the government securities market, both primary and secondary segment. Data availability for secondary market for corporate debt securities is limited. Wherever possible, the developments in the secondary market for corporate debt are also covered in this chapter. The developments in primary corporate debt market are presented in Chapter 2 of this publication.

Market Segments

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

- Government securities form the oldest and most dominant part of the debt market in India. The market for government securities comprises the securities issued by the central government, state governments and state-sponsored entities. In the recent past, local bodies such as municipal corporations have also begun to tap the debt market for funds. The Central Government mobilises funds mainly through issue of dated securities and T-bills, while State Governments rely solely on State Development Loans. The major investors in sovereign papers are banks, insurance companies and financial institutions, which generally do so to meet statutory requirements.
- Bonds issued by government-sponsored institutions like DFIs, infrastructure-related institutions and the PSUs, also constitute a major part of the debt market. The gradual withdrawal of budgetary support to PSUs by the government since 1991 has increased their reliance on the bond market for mobilising resources. The preferred mode of raising capital by these institutions has been private placement, barring an occasional public issue. Banks, financial institutions and other corporates have been the major subscribers to these issues.
- The Indian corporate sector relies, to a great extent, on raising capital through debt issues, which comprise of bonds and CPs. Of late, most of the bond issues are being placed through the private placement route. These bonds are structured to suit the requirements of investors and the issuers, and include a variety of tailor-made features with respect to interest payments and redemption. Corporate bond market has seen a lot of innovations, including securitised products, corporate bond strips, and a variety of floating rate instruments with floors and caps. In the recent years, there has been an increase in issuance of corporate bonds with embedded put and call options. While some of these securities are traded on the stock exchanges, the secondary market for corporate debt securities is yet to fully develop.
- In addition to above, there is another segment, which comprises of short-term paper issued by banks, mostly in the form of certificates of deposit (CDs). This segment is, however, comparatively less dominant.
- The Indian debt market also has a large non-securitised, transactions-based segment, where players are able to lend and borrow amongst themselves. This segment comprises of call and notice money markets, inter-bank market for term money, market for inter-corporate loans, and market for ready forward deals (repos). Typically, short-term instruments are traded in this segment.
- The market for interest rate derivatives like FRAs, IRSs is emerging to enable banks, PDs and FIs to hedge interest rate risks.

Policy Developments

I. Union Budget 2008-09

Finance Minister in his Budget speech of 2008-09 proposed some measures to expand the market for corporate bonds such as:

- Take measures to develop the bond, currency and derivatives markets that will include launching exchange-traded currency and interest rate futures and developing a transparent credit derivatives market with appropriate safeguards;
- Enhance the tradability of domestic convertible bonds by putting in place a mechanism that will enable investors to separate the embedded equity option from the convertible bond and trade it separately; and

The Finance Minister also announced that supplementing the measures announced in respect of the corporate debt market, it was proposed to exempt from TDS, corporate debt instruments issued in demat form and listed on recognized stock exchanges.

Various developments in the bond market can be read in "Corporate Bond Market" segment later in this chapter. As regards developments in derivative market, details are given in chapter 7. The announcement regarding enhancing the tradeability of domestic convertible bonds is yet to be implemented.

II. DIP Guidelines

In order to facilitate development of a vibrant primary market for corporate bonds in India, SEBI amended certain provisions of the SEBI (Disclosure and Investor Protection) Guidelines, 2000 in December, 2007, which provided the following:

- For public/ rights issues of debt instruments, issuers need to obtain rating from only one credit rating agency instead of from two. This would reduce the cost of issuances.
- In order to facilitate issuance of below investment grade bonds to suit the risk/ return appetite of investors, the stipulation that debt instruments issued through public/ rights issues shall be of at least investment grade has been removed.
- Further, in order to afford issuers with desired flexibility in structuring of debt instruments, structural restrictions such as those on maturity, put/call option, on conversion, etc have been done away with.

III. Amendments to Securities Contracts (Regulation) Act, 1956 (SCRA) to provide legal framework for trading of securitized debt

Securitisation is a form of financing involving pooling of financial assets and the issuance of securities that are repaid from the cash flows generated by the assets. It is a financing tool involving creating, combining and recombining categories of assets and securities into new forms. Assets, loans, receivables, etc. from multiple originators and often from more than one seller, are pooled and repackaged, underwritten and sold in the form of asset-backed or other securities.

Securitisation allows banks and financial institutions to keep these loans off their balance sheets, thus reducing the need for additional capital; provides them with alternative forms of funding risk transfer and a new investor base. Further, it facilitates better matching of assets and liabilities and the development of the long-term debt market. Funding costs are lowered as a result of movement of investments from less efficient debt markets to more efficient capital markets through the process of securitisation.

There is considerable potential in the securities market for the certificates or instruments under securitisation transactions. The development of the securitised debt market is critical for meeting the humungous requirements of the infrastructure sector, particularly housing sector, in the country.

In India, the market for securitised debt remains underdeveloped. Despite two major initiatives, namely, the amendment of the National Housing Bank Act, 1987 (NHB Act) in 2000; and enactment of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act), the market has not picked up mainly because of lack of facility of trading on stock exchanges. This is because securitisation transactions under the NHB Act are not covered under the definition of "securities" in the SCR Act. As a result, buyers of securitised financial instruments have few exit options.

Accordingly, after extensive consultations with major institutional participants and market experts, the Budget 2005-06 proposed to "amend the definition of 'securities' under the SCRA so as to provide a legal framework for trading of securitized debt including mortgage backed debt". In pursuant to this, the Securities Contracts (Regulation) Amendment Bill, 2005 was introduced in the Lok Sabha in December, 2005 and referred to the Standing Committee on Finance. The Committee submitted its report in May, 2006. Based on recommendations of the Committee, a revised Bill was introduced and passed by the Parliament in May 2007. The Securities Contracts Regulation Amendment Act, 2007, providing for legal framework for trading of securitized debt, was enacted on 28th May, 2007.

The amendment, *inter alia*, provided for:

- including securitization certificates or instruments under the definition of "securities" in clause (h) of section 2 of the SCRA;
- a disclosure based regulation for issue of securitized certificates or instruments and the procedure therefore.

The objective of the amendment was to provide a trading platform for securitized instruments under the regulatory purview of SEBI. Now that the securitized debt are "securities" under the SCRA, the entire institutional, supervisory and regulatory architecture of securities law is applicable to these instruments also.

IV. Simplified regulatory framework for issuance and listing of debt securities

In order to facilitate development of a vibrant primary market for corporate bonds in India, SEBI notified Regulations for Issue and Listing of Debt Securities, on June 6, 2008, to provide for simplified regulatory framework for issuance and listing of non-convertible debt securities (excluding bonds issued by Governments) issued by any company, public sector undertaking or statutory corporations. The Regulations do not apply to issue and listing of, securitized debt instruments and security receipts for which separate regulatory regime is in place.

The Regulations provide for rationalized disclosure requirements for public issues and flexibility to issuers to structure their instruments and decide on the mode of offering, without diluting the areas of regulatory concern. In case of public issues, while the disclosures specified under Schedule II of the Companies Act, 1956 shall be made, the Regulations require additional disclosures about the issuer and the instrument such as nature of instruments, rating rationale, face value, issue size, etc.

While the requirement of filing of draft offer documents with SEBI for observations has been done away with, emphasis has been placed on due diligence, adequate disclosures, and credit rating as the cornerstones of transparency. Regulations prescribe certifications to be filed by merchant bankers in this regard. The Regulations emphasize on the role and obligations of the debenture trustees, execution of trust deed, creation of security and creation of debenture redemption reserve in terms of the Companies Act.

The Regulations enable electronic disclosures. The draft offer document needs to be filed with the designated stock exchange through a SEBI registered merchant banker who shall be responsible for due diligence exercise in the issue process and the draft offer document shall be placed on the websites of the stock exchanges for a period of seven working days inviting comments. The requirements for advertisements have also been simplified.

While listing of securities issued to the public is mandatory, the issuers may also list their debt securities issued on private placement basis subject to compliance of simplified regulatory requirements as provided in the Regulations. The Regulations provide an enabling framework for listing of debt securities issued on a private placement basis, even in cases where the equity of the issuer is not listed. NBFCs and Public Finance Instruments (PFIs) are exempted from mandatory listing. However, they may list their privately placed debt securities subject to compliance with the simplified requirements and Listing Agreement.

V. SEBI notifies SEBI (Public Offer and Listing of Securitised Debt Instruments) Regulations, 2008

The amendment to Securities Contracts (Regulation) Act, 1956 (SCRA) (as detailed in III above) enabled SEBI to provide for disclosure based regulation for public issue of or listing of securitized debt instruments on the recognized stock exchanges with a view to develop market for securitized debt instruments. Accordingly, SEBI notified SEBI (Public Offer and Listing of Securitised Debt Instruments) Regulations, 2008 on May 26, 2008 taking into account the market needs, cost of the transactions, competition policy, the professional expertise of credit rating agencies, disclosures and obligations of the parties involved in the transaction and the interest of investors in such instruments. Salient features of the regulations are as follows: -

(a) The special purpose distinct entity i.e. issuer shall be in the form of a trust, the trustees thereof will require registration from SEBI. The registration granted to a trustee shall be permanent subject to compliance with the provisions with the SCRR and the regulations and payment of appropriate fees.

(b) If a debenture trustee registered with SEBI or a securitization company or a asset reconstruction company registered with Reserve Bank of India or National Housing Bank or the NABARD is the trustee of the issuer no registration from SEBI to act as such shall be required.

(c) The securitized debt instruments issued to public or listed on recognized stock exchange shall acknowledge the beneficial interest of the investors in underlying debt or receivables assigned to the issuer. The regulations provide flexibility in terms of pay through / pass through structures and do not restrict any particular mode.

(d) The assignment of assets to the issuer shall be a true sale. The debt or receivables assigned to the issuer should be expected to generate identifiable cash flows for the purpose of servicing the instrument and the originator should have valid enforceable interests in the assets and in cash flow of assets prior to securitization.

(e) The issuer shall be a bankruptcy remote from the originator. Originator shall be an independent entity from the issuer and its trustees and the originator and its associates shall not exercise any control over the issuer. However, the originator may be appointed as a servicer. The issuer may appoint any other person as servicer in respect of any its schemes to co-ordinate with the obligors, manage the said pool and collection therefrom, administer the cash flows of asset pool, distribution to investors and reinvestments. The issuer shall not acquire any debt or receivables from any originator who is part of the same group or which is under the same management as the trustee. Regulations require strict segregation of assets of each scheme.

(f) The issuer may offer securitised debt instruments to public for subscription through an offer document containing disclosures of all relevant material facts including financials of the issuer, originator, quality of the asset pool, disclosure of various kinds of risks, credit ratings including unaccepted ratings, arrangements made for credit enhancement, liquidity facilities availed, underwriting of the issue etc. apart from the routine disclosures relating to issue, offer period, application, etc.

(g) Rating from atleast two credit rating agencies is mandatory and all ratings including unaccepted ratings shall be disclosed in the offer documents. The rating rationale should include reference to the quality of the said pool and strengthen of cash flows, originator profile, payment structure, risks and concerns for investors, etc.

(h) The instrument shall be in dematerialized form.

(i) The draft offer document shall be filed with SEBI atleast 15 days before opening of the issue.

(j) In case of public issuances listing will be mandatory. The instruments issued on private placement basis may also be listed subject to the compliance of simplified provisions of the regulations. The securitised debt instruments issued to the public or listed on a recognized stock exchange in accordance with these regulations shall be freely transferable.

(k) It has been proposed to introduce simplified and relaxed listing agreement. Listing of private placement is also permitted subject to the compliance of simplified provisions of the listing agreement and the regulations. The simplified listing agreement is under preparation.

Market Design

Government Securities Market

Market Participants	Given the large size of the trades, the debt market has remained predominantly a wholesale market. The matrix of issuers, investors, instruments in the debt market and their maturities are presented in (Table 6-2).
Regulators	**RBI** The RBI operates both as the monetary authority and the debt manager to the government. The RBI participates in the market through: • Open-market operations (OMO) • Liquidity Adjustment facility (LAF) • Bank rate • Repo rate.

	SEBI SEBI regulates the debt instruments listed on the stock exchanges. • It issues guidelines for its issuance and also for their listing on stock exchanges. • The secondary market trading is conducted as per the rules set by SEBI.
Primary Dealers	**Primary dealers (PDs)** are important intermediaries in the government securities markets. There were 17 PDs operating in the market at the end of March 2008. • They act as underwriters in the primary market. Normally, PDs collectively offer to underwrite up to 100% of the notified amount in respect of all issues. The underwriting commitment of each PD is broadly decided on the basis of its size in terms of its net owned funds, its holding strength, the committed amount of bids and the volume of turnover in securities. • They are market makers in the secondary market. PDs underwrite a portion of the issue of government security that is floated for a pre-determined amount. • RBI provides liquidity support to the PDs through LAF against collateral of government securities and through repo operations/refinance. • PDs are also given favoured access to the RBI's open market operations. • They are permitted to borrow and lend in the money market. • In addition, they can raise resources through CPs and also have access to finance from commercial banks as any other corporate borrowers.
Brokers	• Play an important role in secondary debt market by bringing together counterparties and negotiating terms of trade. • Trades are entered through them on the stock exchanges The brokers are regulated by the stock exchanges and by SEBI.
Investors	• **Banks** • **Mutual Funds**. • **Foreign Institutional Investors (FIIs)** also are permitted to invest in treasury and corporate bonds, within certain limits. • **Provident and pension funds** are large investors in the debt markets. **Charitable institutions, trusts and societies** are also large investors in the debt markets. They are, however, governed by their rules and bye-laws with respect to the kind of bonds they can buy and the manner in which they can trade on their debt portfolios. • **Small and Medium Sized Investors:** To enable small and medium sized investors to participate in the primary auction of government securities, a "Scheme of Non Competitive Bidding" was introduced in January 2002, which is open to any person including firms, companies, corporate bodies, institutions, provident funds, trusts, and any other entity prescribed by RBI. The scheme provides for allocation of up to 5 per cent of the notified amount at the weighted average rate of accepted bids. Investors can bid through banks or PDs a minimum amount of Rs.10,000 to a maximum amount of Rs. 20 million.
Types & Issuers of Securities	**Types of Securities** **Securities with fixed coupon rates** These securities carry a specific coupon rate remaining fixed during the term of the security and payable periodically. These may be issued at a discount, at par or at a premium to the face value, but are redeemed at par. **Floating Rate Bonds** These securities carry a coupon rate, which consists of a variable base and a spread. The most common base rate used is the weighted average of yield of 364 day-treasury bills. The spread is decided at the auction. **Zero Coupon Bonds** These are issued at a discount and redeemed at par. On the basis of the bids tendered, the RBI determines the cut-off price at which tenders would be accepted at the auction

	Treasury Bills Treasury bills (T-bills) are short-term debt instruments issued by the Central government. They have either 91-days, 182-days or 364-days maturity. T-bills are sold through an auction process announced by the RBI at a discount to its face value. RBI issues an indicative calendar of T-bill auctions. **Government Securities** issued by Central and State Government and Local bodies. In the recent past, local bodies such as municipalities have also tapped the market. The Central Government mobilises funds mainly through issue of dated securities and T-bills, while State Governments rely solely on state development loans.

Table 6-2: Participants and Products in Debt Market

Issuer	Instruments	Maturity	Investors
Central Government	Dated Securities	2 - 30 years	RBI, Banks, Insurance Companies, Provident Funds, Mutual Funds, PDs
Central Government	T-Bills	91/182/364 days	RBI, Banks, Insurance companies, Provident Funds, Mutual Funds, Individuals, PDs
State Government	Dated Securities	5-13 years	RBI, Banks, Insurance Companies, Provident Funds, Mutual Funds, Individuals and PD's.
PSUs	Bonds, Structured Obligations	5-10 years	Banks, Insurance Companies, Provident Funds, Mutual Funds, Individuals, Corporates
Corporates	Debentures	1 - 12 years	Banks, Mutual Funds, Corporates, Individuals
Corporates, PDs	Commercial Papers	7 days to 1 year	Banks, Mutual Funds, Financial Institutions, Corporates, Individuals, FIIs
Scheduled Commercial Banks, Select Financial Institutions (under umbrella limit fixed by RBI)	Certificates of Deposits	7 days to 1 year, whereas for FIs it is 1 year to 3 years	Banks, Companies, Individuals, FIIs, Corporations, Trusts, Funds, Associations, FIs, NRIs
Scheduled Commercial Banks	Bank Bonds	1-10 years	Corporations, Individuals, Companies, Trusts, Funds, Associations, FIs, Non-Resident Indians
Municipal Corporation	Municipal Bonds	0-7 years	Banks, Corporations, Individuals, Companies, Trusts, Funds, Associations, FIs, Non-Resident Indians

Primary Issuance Process of Government Securities

Government issues securities through the auction, tap sale, pre-announced coupon rate etc. A brief about them are as given below:

Issue of securities through auction	The securities are issued through auction either on price basis or yield basis. • If the issue is on price basis, the coupon is pre-determined, then the bidders should quote price per Rs.100 of the face value of the security. • If the issue is on yield basis, then the coupon of the security is decided in an auction and the security carries the same coupon till maturity. On the basis of the bids received, RBI determines the maximum rate of yield or the minimum offer price as the case may be at which offers for purchase of securities would be accepted. The auctions for issue of securities (on either yield basis or price basis) are held either on 'Uniform Price' method or 'Multiple Price Method'.
Issue of securities with pre-announced coupon rates	The coupon on securities is announced before the date of floatation and the securities are issued at par. In case the total subscription exceeds the aggregate amount offered for sale, RBI may make partial allotment to all the applicants.
Issue of securities through tap sale	No aggregate amount is indicated in the notification in respect of the securities sold on tap. Sale of such securities may be extended to more than one day and the sale may be closed at any time on any day.

Issue of securities in conversion of maturing treasury bills/dated securities	The holders of treasury bills of certain specified maturities and holders of specified dated securities are provided an option to convert their holding at specified prices into new securities offered for sale. The new securities could be issued on an auction/pre-announced coupon basis.
Securities with Embedded Options	These securities, where a 'call option'/ 'put option' is specified, are repaid at the option before the specified redemption date.
Issuance Process of Treasury Bills	Treasury bills (T-bills) are short-term debt instruments issued by the Central government. They have 91-days, 182-days or 364-days maturity. T-Bills are available for a minimum amount of Rs.25,000 and in multiples of Rs.25,000. Banks and PDs areT-bills are sold through an auction process announced by the RBI at a discount to its face value. T-Bills are sold through an auction process announced by the RBI at a discount to its face value. RBI issues a calendar of T-bill auctions.
State Government Securities	The States raise resources through Auctions and Tap routes. The State Government raised a gross amount of Rs. 677,790 million in 2007-08 as compared with Rs. 208,250 million in the previous year. The entire gross amount was raised throught the auction route.
Purchasers of G-Secs	• Any person including firm, company, corporate body, institution, state government, provident fund, trust, NRI, OCB predominantly owned by NRIs and FII registered with SEBI and approved by RBI can submit offers, including in electronic form for purchase of government securities. The payments can be done through a variety of means such as cash or cheque drawn on RBI or Banker's pay order or by authority to debit their current account with RBI or by Electronic Fund Transfer. Government securities are issued for a minimum amount of Rs. 10,000 (face value) and in multiples of Rs. 10,000 thereafter. These are issued to the investors by credit to their SGL Account or to a Constituent SGL Account of the institution as maintained with RBI or by credit to their Bond Ledger or in the form of physical certificate. These are repaid at Public Debt Offices of RBI or any other institution at which they are registered at the time of repayment. • Retail investors can participate in the auctions on 'non-competitive' basis. Allocation of the securities to the non-competitive bidders are made at the discretion of the RBI and at a price higher than the weighted average price arrived at on the basis of the competitive bids accepted at the auction. The nominal amount of securities that would be allocated to retail investors on non-competitive basis is restricted to a maximum of 5 percentage of the aggregate nominal amount of the issue, within or outside of the nominal amount which is issued at the weighted average price of the issue at the auction.
Secondary Market Participants	• Banks • Financial Institutions • Primary Dealers • Mutual Funds Most of the secondary market trades in government securities are negotiated between participants (Banks, FIs, PDs, MFs) having SGL accounts with RBI. These may be negotiated directly between counter parties or negotiated through brokers.
Listing of Government Securities	All government securities are 'deemed' listed as and when they are issued. All eligible securities, whether publicly issued or privately placed, can be made available for trading in the WDM segment. Amongst other requirements, privately placed debt paper of banks, institutions and corporates requires an investment grade credit rating to be eligible for listing. The listing requirements for securities on the WDM segment are presented in (Table 6-3).

SECONDARY MARKET – Trading System	
Most of the secondary market trades in government securities are negotiate between participants (Banks, FIs, PDs, MFs) having SGL accounts with RBI. These may be negotiated directly between counter parties or negotiated through brokers. The Exchange facilitates trading members to report off-market deals in securities in cases where the repo period is more than the permissible days in the trading system (14 days). These trades are required to be reported to the Exchange within 24 hours of the issuance of contract note.	
Various Trading Platforms	
Negotiated Dealing System (NDS)	NDS of RBI provides an electronic platform for negotiating trades in government securities. If a broker is involved, the trade is reported to the concerned exchange. Trades are also executed on electronic platform of the WDM segment of NSE. WDM segment of NSE provides trading and reporting facilities for government securities.
NDS– Order Matching (NDS-OM)	• NDS-OM is an electronic, screen based, anonymous, order driven trading system, introduced by RBI as part of the existing NDS system to facilitate electronic dealing in government securities. • It is accessible to members through RBI's INFINET Network. • The system facilitates better price discovery, liquidity, increased operational efficiency and transparency. • NDS-OM facilitates straight- through-processing, with all the trades on the system automatically sent to CCIL for settlement. • NDS-OM is open to all existing NDS members who are regulated by RBI. Trading in this platform has been gradually extended to entities like insurance companies, mutual funds and, provident funds. • The NDS-OM system supports trading in all Central Government Dated Securities and State Government Securities in T+1 settlement type. • It is proposed to be upgraded later to facilitate trading in discounted instruments like Treasury Bills. • Further RBI has permitted the execution of intra-day short sale transaction and the covering of short position only on this trading platform.
WDM Segment of NSE Trading System	NSE's Wholesale Debt Market (WDM) segment offers a fully automated screen based trading platform through the NEAT (National Exchange for Automated Trading) system. The WDM segment as the name suggest permits only high value transactions in debt securities. Hence, it is meant primarily for banks, institutional and corporate participants and intermediaries. The trades on the WDM segment can be executed through the continuous market and negotiated market. In continuous market, the buyer and seller do not know each other and they put their best buy/sell orders, which are stored in order book with price/time priority. If orders match, it results into a trade. The trades in WDM segment are settled directly between the participants, who take an exposure to the settlement risk attached to any unknown counter-party. In the NEAT-WDM system, all participants can set up their counter-party exposure limits against all probable counter-parties. This enables the trading member/participant to reduce/minimise the counter-party risk associated with the counter-party to trade. A trade does not take place if both the buy/sell participants do not invoke the counter-party exposure limit in the trading system. In the negotiated market, the trades are normally decided by the seller and the buyer outside the exchange, and reported to the Exchange through the broker. Thus, deals negotiated or structured outside the exchange are disclosed to the market through NEAT-WDM system. In negotiated market, as buyers and sellers know each other and have agreed to trade, no counter-party exposure limit needs to be invoked.
Types of Securities traded in the WDM Segment of NSE	All types of SLR (Government securities, T-bills etc) and non-SLR (CPs, CDs etc) securities are available for trading in the WDM segment of the NSE. All government securities are 'deemed' listed as and when they are issued. The other debt securities are traded either under the 'permitted to trade' or 'listed' category. All eligible securities, whether publicly issued or privately placed, can be made available for trading in the WDM segment.

Charges	The NSE has waived the transaction charges for the WDM segment of the Exchange for the period April 1, 2008 to March 31, 2009.
Clearing and Settlement	NSE currently allows settlement periods ranging from same day (T+0) settlement to a maximum of (T+2) for non-government securities while settlement of all outright secondary market transactions in government securities was standardized to T+1. In case of repo transactions in government securities, first leg can be settled either on T+0 basis or T+1 basis. In case of government securities, the actual settlement of funds and securities are effected directly between participants or through Reserve Bank of India (RBI). Trades in government securities are reported to RBI-SGL through the Negotiated Dealing System (NDS) of RBI, and Clearing Corporation of India Limited (CCIL) provides settlement guarantee for transactions in government securities including repos. The trades are settled on a net basis through the DvP-III system. In the DvP-III, the settlement of Securities and Funds are carried out on a net basis. For securities other than government securities and T-bills, trades are settled on a gross basis directly between participants on delivery versus payment basis. On the scheduled settlement date, the Exchange provides data/information to the respective member/participant regarding trades to be settled on that day with details like security, counter party and consideration. The settlement details for non-government securities, i.e. certificate no., Cheque no., constituent etc. are reported by the member/participant to the Exchange. The Exchange closely monitors the settlement of transactions through the reporting of settlement details by members and participants. In case of deferment of settlement or cancellation of trade, participants are required to seek prior approval from the Exchange. For any dispute arising in respect of the trades or settlement, the exchange has established arbitration mechanism for resolving the same.

Table 6-3: Eligibility Criteria for Securities on WDM Segment

<table>
<tr><th rowspan="2">Issuer</th><th colspan="2">Eligibility Criteria for listing</th></tr>
<tr><th colspan="2">Public Issue /Private Placement</th></tr>
<tr><td>Corporates (Public limited companies and Private limited companies)</td><td colspan="2">• Paid-up capital of Rs.10 crores; or
• Market capitalisation of Rs.25 crores
(In case of unlisted companies Networth more than Rs.25 crores)
• Credit rating</td></tr>
<tr><td>Public Sector Undertaking, Statutory Corporation established/ constituted under Special Act of Parliament /State Legislature, Local bodies/ authorities,</td><td colspan="2">• Credit rating</td></tr>
<tr><td>Mutual Funds:
Units of any SEBI registered Mutual Fund/scheme :
• Investment objective to invest predominantly in debt or
• Scheme is traded in secondary market as debt instrument</td><td colspan="2">• Qualifies for listing under SEBI's Regulations</td></tr>
<tr><td>Infrastructure companies
• Tax exemption and recognition as infrastructure company under related statutes/regulations</td><td colspan="2">• Qualifies for listing under the respective Acts, Rules or Regulations under which the securities are issued.
• Credit rating</td></tr>
<tr><td rowspan="2">Financial Institutions u/s. 4A of Companies Act, 1956 including Industrial Development Corporations</td><td>Public Issue</td><td>Private Placement</td></tr>
<tr><td>Qualifies for listing under the respective Acts, Rules or Regulations under which the securities are issued.</td><td>Credit rating</td></tr>
<tr><td>Banks</td><td>• Scheduled banks
• Networth of Rs.50 crores or above
• Qualifies for listing under the respective Acts, Rules or Regulations under which the securities are issued.</td><td>• Scheduled Banks
• Networth of Rs.50 crores or above
• Credit rating</td></tr>
</table>

Corporate Bond Market

Corporate debt instruments are traded either as bilateral agreements between two counterparties or on a stock exchange through brokers. In the latter category, these are traded on BSE and on the CM and WDM segments of NSE. The difference between trading of government securities and corporate debt securities is that the latter are traded on the electronic limit order book. This is in view of SEBI mandate, which prohibits negotiated deals in respect of corporate listed debt securities. The SEBI regulation also prescribes that all such trades should be executed on the basis of price and order matching mechanism of stock exchanges as in case of equities. The trades on BSE are settled through the clearing house. The trades on CM segment of NSE are settled through National Securities Clearing Corporation. Trades on WDM segment of NSE are settled on a trade-by-trade basis on the settlement day.

The corporate bond market has been in existence in India for a long time. However, despite a long history, the size of the public issue segment of the corporate bond market in India has remained quite insignificant. The lack of market infrastructure and comprehensive regulatory framework coupled with low issuance leading to low liquidity in the secondary market, narrow investor base, inadequate credit assessment skills, high cost of issuance, lack of transparency in trades and underdevelopment of securitization of products are some of the major factors that hindered the growth of the private corporate debt market.

The market design of corporate bond markets is summarized below:

Market segments	• Bonds issued by public sector units, including public financial institutions, and • Bonds issued by the private corporate sector
Regulatory framework	In January, 2007, the **regulatory jurisdiction** and market design for corporate bonds was clarified by the Government as under: (a) ***Agency responsible for different segments of the corporate debt market*** (i) SEBI will be responsible for primary market (public issues as well as private placement by listed companies) for corporate debt; (ii) RBI will be responsible for the market for repo/reverse repo transactions in corporate debt. However, if it is traded on exchanges, trading and settlement procedure would be determined by SEBI. (iii) SEBI will be responsible for the secondary market (OTC as well as Exchange) for the corporate debt; (iv) The above framework would apply irrespective of the parties (bank or non bank involved in a transaction; (v) The views in respect of trading of unlisted securities and derivatives on corporate debt (other than repo/reverse repo) would be taken as and when the need arises. (b) ***The market design for the secondary market of corporate debt market*** (i) OTC as well as exchange based transactions need to be reported to reporting platforms(s); (ii) All the eligible and willing national stock exchanges need to be allowed to set up and maintain reporting platforms if they approach SEBI for the same. SEBI needs to coordinate among such reporting platforms and assign the job of coordination to a third agency; (iii) The trades executed on or reported to an Exchange need not be reported to a reporting platform; (iv) The participants must have a choice of platform. They may trade on OTC or any exchange trading platform; (vi) Existing exchanges could be used for trading of corporate debts. NSE and BSE could provide trading platforms for this purpose. There is no need to create a separate infrastructure; (vii) There would be no separate trading platforms for different kinds of investors. Institutional and retail investors would trade on the same platform; (viii) Only brokers would have access to trading platform of an Exchange. Banks would have the option of becoming a broker or trading through a broker. RBI, may if considered necessary restrict a bank to trade only on proprietary account as a broker.

Trade reporting platforms	BSE operationalised its reporting platform to capture information related to trading in corporate bond market in January 2007. NSE set up its reporting platform in March, 2007. Further, Fixed Income Money Market and Derivatives Association of India (FIMMDA) proposed to set up a reporting platform for corporate bonds and also provide value added dissemination of information on corporate bonds as in the case of government securities. SEBI granted permission to FIMMDA and thus, its reporting platform was operationalised in September, 2007. Accordingly, for reporting of OTC trades the concerned parties could opt to report their trades on any one of the three reporting platforms.
Trading platforms	In April, 2007 SEBI permitted both BSE and NSE to have in place corporate bond trading platforms and advised both the exchanges advises them that the stock exchanges may provide their services for clearing and settlement of corporate bonds traded or the entities trading in listed corporate debt securities may settle their trades bilaterally. BSE and NSE trading platforms became operational in July 2007. Initially, trade matching platforms at BSE and NSE are order driven with the essential features of OTC market.

Market Outcome

Primary Market

Resource Mobilization

During 2007-08, the central government and state governments borrowed Rs.1,882,050 million (US $ 47,087 million) and Rs.677,790 million (US $ 16,957 million) respectively. The gross borrowings of the central and state governments taken together increased by 27.87 % from Rs. 2,001,980 million (US $ 45,928 million) during 2006-07 to Rs. 2,559,840 million (US $ 64,044 million) during 2007-08 (Table 6-4). Their net borrowings also increased by 8.30 % from Rs. 1,255,440 million (US $ 28,801 million) in the previous year to Rs. 1,151,264 million (US $ 28,803 million) during 2007-08. The gross and net market borrowings of central government are budgeted to increase further to Rs. 1,757,800 million while those of the state governments are budgeted to increased to Rs. 590,620 million and Rs. 447,370 million in the same period.

The Central Government mobilised Rs. 1,560,000 million (US $ 39,029 million) through issue of dated securities and Rs. 322,050 million (US $ 8,057 million) through issue of T-bills. After meeting repayment liabilities of Rs.453,290 million US $ 11,341 million) for dated securities, and redemption of T-bills of Rs. 322,050 million (US $ 8,057 million), net market borrowing of Central Government amounted to Rs. 1,095,040 million (US $ 27,397 million) for the year 2007-08. The state governments collectively raised Rs. 677,790 million (US $ 16,957 million) during 2007-08 as against Rs. 208,250 million (US $ 4,777 million) in the preceding year. The net borrowings of State Governments in 2007-08 amounted to Rs. 562,240 million (US $ 14,067 million). (Table 6-4)

Yields

The year 2007-08 witnessed a rise in interest rates on market borrowings across maturities. This was largely due to comfortable liquidity position during the fiscal year 2007-08, however there were some pressures during the first quarter of the year and in July 2007. The yields on primary issues of dated government securities hardened during the year with the cut-off yield varying between 7.55% and 8.64% during 2007-08 as against the range of 7.06% to 8.75% during the preceding year. Barring the sharp dip in yields on July 18, 2007 and easing of yields in February and March 2008, reflecting easy liquidity conditions and very low short term interest rates, the yields during 2007-08 were higher than their respective levels a year ago. The firming up of yields reflected higher money market interest rates, removal of the ceiling on absorption through reverse repo and hikes in the cash reserve ratio. International developments particulary the cut in the Fed Funds target rate led to softening of rates in October 2007 and January 2008. A notable feature during

Table 6-4: Market Borrowings of Governments

Security	Gross			Repayment			Net			Gross	Repay-ment	Net
	2008-09 BE (Rs. mn)	2007-08 (Rs. mn)	2006-07 (Rs. mn)	2008-09 BE (Rs. mn)	2007-08 (Rs. mn)	2006-07 (Rs. mn)	2008-09 BE (Rs. mn)	2007-08 (Rs. mn)	2006-07 (Rs. mn)	2007-08 (US $ mn)		
1 Central Government (a+b)	1,757,800	1,882,050	1,793,730	767,800	787,020	680,970	990,000	1,095,040	1,112,750	47,087	19,690	27,397
a) Dated Securities	1,497,800	1,560,000	1,460,000	445,750#	453,290	390,790	1,052,050	1,106,710	1,069,210	39,029	11,341	27,689
b) 364-day T-bills	260,000	322,050	333,730	322,050	333,730	290,180	-62,050	-11,670	43,540	8,057	8,350	(292)
2 State Government*	590,620	677,790	208,250	143,710	115,550	65,510	447,370	562,240	142,740	16,957	2,891	14,067
Total (1+2)	**2,348,420**	**2,559,840**	**2,001,980**	**911,510#**	**902,570**	**746,480**	**1,437,370**	**1,657,280**	**1,255,490**	**64,044**	**22,581**	**41,463**

Source: RBI Annual Report, 2007-08

* Excludes three states for which Annual Plans of 2008-09 are yet to be finalised

Includes Rs.5,470 million pertaining to a security with a call and put option

BE- budget estimates

2007-08 was a better management of the usually tight year-end liquidity conditions during 2006-07. The weighted average yield on government dated securities increased to 8.12% in 2007-08 from 7.89% in 2006-07 (Table 6-5).

Table 6-5: Profile of Central Government Dated Securities

		(Amount in Rs. mn.)		(Amount in US $ mn.)	
	Items	**2006-07**	**2007-08**	**2006-07**	**2007-08**
1	Gross Borrowing	1,460,000	1,560,000	33,494	39,029
2	Repayments	390,840	453,290	8,966	11,341
3	Net Borrowings	1,069,160	1,106,710	24,528	27,689
4	Weighted Average Maturity (In years)	14.75	14.90	N.A	N.A
5	Weighted Average Yield (Per cent)	7.89	8.12	N.A	N.A
6	(A) Maturity Distribution (Amount)				
	a Upto 5 years	100,000	-	2,294	-
	b Above 5 and upto 10 years	690,000	890,000	15,829	22,267
	c Above 10 years	670,000	670,000	15,370	16,763
	Total	1,460,000	1,560,000	33,494	39,029
	(B) Maturity Distribution (Per cent)				
	a Upto 5 years	7	0	N.A	N.A
	b Above 5 and upto 10 years	47	57	N.A	N.A
	c Above 10 years	46	43	N.A	N.A
	Total	100	100	N.A	N.A
7	Price based Auctions Amount	1,320,000	1,500,000	30,282	37,528
8	Yield - (Per cent)				
	Minimum	7.06 (6 years, 1 month)	7.55 (9 years, 6 months)	N.A	N.A
	Maximum	8.75 (28 years, 1 month)	8.64 (29 years, 7 months)	N.A	N.A
9	Yield - Maturity Distribution-wise				
	(A) Less than 10 years				
	Minimum	7.06 (6 years, 1 month)	7.55 (9 years, 6 months)	N.A	N.A
	Maximum	8.29 (9 years, 9 months)	8.44 (9 years, 10 months)	N.A	N.A
	(B) 10 years				
	Minimum	7.59	7.99	N.A	N.A
	Maximum	7.59	7.99	N.A	N.A
	(C) Above 10 years				
	Minimum	7.43 (10 years 1 month)	7.62 (14 years)	N.A	N.A
	Maximum	8.75 (28 years, 1 month)	8.64 (29 years)	N.A	N.A

Note: Figures in brackets indicate residual maturity in years.
N.A Not applicable
Source: RBI Annual Report 2007-08

Maturity Structure

Government has been consciously trying to lengthen maturity profile. During 2007-08, around 43 % of central government borrowings were affected through securities with maturities above 10 years and 57% borrowings were effected through securities with maturities above 5 and upto 10 years. The weighted average maturity of dated securities issued during the year was higher at 14.90 years in 2007-08 than 14.75 years during 2007-08. (Table 6-5)

Secondary Market

Turnover

The aggregate secondary market transactions in debt securities (including government and non-government securities) increased by 57.04 % to Rs. 56,495,743 million (US $ 1,413,454 million) in 2007-08 from Rs. 35,974,308 million (US $ 825,288 million) in 2006-07. Non-government securities accounted for a meager 0.39% of total turnover in debt market. NSE accounted for about 5 % of total turnover in debt securities during 2007-08. (Table 6-6)

Table 6-6: Turnover of Debt Securities

Securities	2006-07 (Rs.mn)	2007-08 (Rs.mn)	April-June 2008 (Rs.mn)	2006-07 (US $ mn)	2007-08 (US $ mn)	April-June 2008 (US $ mn)
Government Securities	**35,833,370**	**56,273,470**	**13,669,310***	**822,055**	**1,407,893**	**318,261**
WDM Segment of NSE	2,053,237	2,604,088	510,462	47,103	65,151	11,885
Rest of SGL	33,780,133	53,669,382	13,158,848	774,951	1,342,742	306,376
Non Government Securities	**140,938**	**222,273**	**77,726**	**3,233**	**5,561**	**1,810**
CM Segment of NSE	1,406	845	103	32	21	2
WDM Segment of NSE	137,828	219,082	77,363	3,162	5,481	1,801
'F' Category of BSE	1,704	2,346	261	39.09	59	6
Total	**35,974,308**	**56,495,743**	**13,747,036**	**825,288**	**1,413,454**	**320,071**

Source: RBI, BSE and NSE.

* includes NDS-OM turnover

The non-government securities are traded on the WDM and CM segments of the NSE, and on the BSE (F Category). Except WDM, the volumes are quite insignificant on other segments. The turnover in non-government securities on WDM segment of NSE was Rs. 219,082 million (US $ 5,481 million) in 2007-08, higher by 58.95% than that during the preceding year. BSE reported a turnover of Rs.2,346 million (US $ 59 million) during 2007-08. NSE accounted for over 98.56% of total turnover in non-government securities during the year.

The aggregate turnover in (central and state government dated securities and T-bills) through non-repo SGL transactions touched a level of Rs.5,003,047million (US $ 125,170 million), recording an increase of 25.61% from Rs. 3,982,988 million (US $ 91,374 million) in the previous year (Table 6-7). The monthly turnover in non-repo transactions for the year 2007-08 ranged between Rs. 284,311 million (US $ 7,113) and Rs. 748,462 (US $ 18,726 million, and with a monthly average of Rs. 331,916 million. (US $ 7,614 million).

Table 6-7: Secondary Market Transactions in Government Securities

Month/ Year	SGL Non-Repo Transactions*				Share in Non-Repo Turnover (%)	
	GOI Securities (Rs mn)	Treasury Bills (Rs mn)	Total (1+2) (Rs mn)	Total (1+2) (US $ mn)	GOI Securities	T-Bills
	1	2	3	4	5	6
1994-95	115,860	97,210	213,070	6,779	54.38	45.62
1995-96	180,170	115,130	295,300	8,597	61.01	38.99
1996-97	604,990	334,220	939,210	26,176	64.41	35.59
1997-98	1,198,890	412,010	1,610,900	40,751	74.42	25.58
1998-99	1,446,410	428,900	1,875,310	44,197	77.13	22.87
1999-00	4,089,160	475,750	4,564,910	104,651	89.58	10.42
2000-01	5,120,836	600,620	5,721,456	122,673	89.50	10.50
2001-02	11,446,342	673,316	12,119,658	248,354	94.44	5.56
2002-03	13,155,989	767,845	13,923,834	293,133	94.49	5.51
2003-04	15,813,076	1,200,556	17,013,632	392,110	92.94	7.06
2004-05	9,897,351	2,711,314	12,608,665	288,198	78.50	21.50
2005-06	4,986,040	2,094,107	12,066,187	270,482	41.32	17.36
2006-07	**2,747,384**	**1,235,603**	**3,982,988**	**91,374**	**68.98**	**31.02**
Apr-07	223,875	91,824	315,699	7,898	70.91	29.09
May-07	182,332	101,980	284,311	7,113	64.13	35.87
Jun-07	183,785	131,614	315,398	7,891	58.27	41.73
Jul-07	373,586	162,526	536,112	13,413	69.68	30.32
Aug-07	262,052	122,512	384,564	9,621	68.14	31.86
Sep-07	205,883	87,602	293,485	7,343	70.15	29.85
Oct-07	294,170	265,846	560,016	14,011	52.53	47.47
Nov-07	202,519	108,227	310,746	7,774	65.17	34.83
Dec-07	394,422	102,127	496,549	12,423	79.43	20.57
Jan-08	603,446	145,016	748,462	18,726	80.62	19.38
Feb-08	372,314	73,835	446,149	11,162	83.45	16.55
Mar-08	243,376	68,178	311,554	7,795	78.12	21.88
2007-08	**3,541,760**	**1,461,287**	**5,003,047**	**125,170**	**70.79**	**29.21**
Apr-08	329,338	81,756	411,094	9,571	80.11	19.89
May-08	301,869	66,964	368,833	8,587	81.84	18.16
Jun-08	519,832	65,194	585,027	13,621	88.86	11.14
April-June 2008	**1,151,039**	**213,915**	**1,364,953**	**31,780**	**84.33**	**15.67**

Source : NSE

*excludes NDS-OM turnover

The share of WDM segment of NSE in the total turnover of Non-repo SGL transaction witnessed a marginal increase from 51.55% in 2006-07 to 52.05% in 2007-08 (Table 6-8). The share of WDM in turnover of non-repo dated securities (central and state government securities) also witnessed a decrease from 55.82% in 2006-07 to 54.89% in 2007-08 (Chart 6-1). In the year 2007-08, the share of WDM in turnover of non-repo T-bills has rose to 45.16 % as compared to 42.05 % in the previous year.

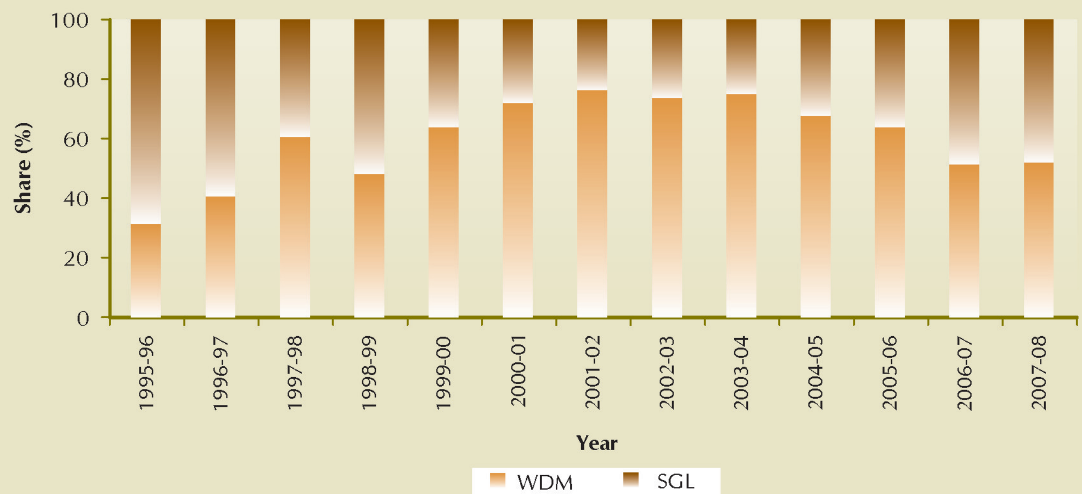
Table 6-8: Share of WDM in Transactions of Government Securities

Year	Turnover of Non-Repo Govt Securities			Turnover of Non-Repo Central & State Govt Sec.			Turnover of Non-Repo T-Bills		
	On SGL (Rs.mn)	On WDM (Rs.mn)	Share of WDM (%)	On SGL (Rs.mn)	On WDM (Rs.mn)	Share of WDM (%)	On SGL (Rs.mn)	On WDM (Rs.mn)	Share of WDM (%)
1995-96	295,300	92,433	31.30	180,170	69,885	6.97	115,130	22,548	19.58
1996-97	939,210	381,023	40.57	604,990	271,902	31.84	334,220	109,121	32.65
1997-98	1,610,900	975,152	60.53	1,198,890	804,943	60.21	412,010	170,209	41.31
1998-99	1,875,310	904,158	48.21	1,446,410	798,295	46.29	428,900	105,863	24.68
1999-00	4,564,910	2,915,915	63.88	4,089,160	2,809,475	58.37	475,750	106,440	22.37
2000-01	5,721,456	4,124,958	72.10	5,120,836	3,893,523	62.94	600,620	231,435	38.53
2001-02	12,119,658	9,269,955	76.49	11,446,342	9,015,121	60.91	673,316	254,834	37.85
2002-03	13,923,834	10,305,497	74.01	13,155,989	9,991,507	55.42	767,845	313,990	40.89
2003-04	17,013,632	12,741,190	74.89	15,813,076	12,185,221	49.01	1,200,556	555,969	46.31
2004-05	12,608,667	8,493,250	67.36	9,902,244	7,246,655	73.18	2,706,422	1,246,595	46.06
2005-06	7,080,147	4,508,016	63.67	4,986,040	3,455,832	69.31	2,094,107	1,052,184	50.24
2006-07	3,982,988	2,053,237	51.55	2,747,384	1,533,697	55.82	1,235,603	519,540	42.05
Apr-07	315,699	164,054	51.97	223,875	120,978	54.04	91,824	43,076	46.91
May-07	284,311	163,838	57.63	182,332	116,762	64.04	101,980	47,076	46.16
Jun-07	315,398	161,732	51.28	183,785	99,641	54.22	131,614	62,091	47.18
Jul-07	536,112	298,911	55.76	373,586	226,322	60.58	162,526	72,589	44.66
Aug-07	384,564	195,501	50.84	262,052	141,942	54.17	122,512	53,560	43.72
Sep-07	293,485	157,105	53.53	205,883	124,328	60.39	87,602	32,777	37.42
Oct-07	560,016	229,938	41.06	294,170	117,650	39.99	265,846	112,288	42.24
Nov-07	310,746	164,596	52.97	202,519	109,136	53.89	108,227	55,460	51.24
Dec-07	496,549	318,559	64.15	394,422	262,876	66.65	102,127	55,683	54.52
Jan-08	748,462	384,358	51.35	603,446	320,814	53.16	145,016	63,544	43.82
Feb-08	446,149	222,578	49.89	372,314	190,144	51.07	73,835	32,435	43.93
Mar-08	311,554	142,917	45.87	243,376	113,547	46.66	68,178	29,370	43.08
2007-08	**5,003,047**	**2,604,088**	**52.05**	**3,541,760**	**1,944,140**	**54.89**	**1,461,287**	**659,948**	**45.16**
Apr-08	411,094	172,170	41.88	329,338	134,664	40.89	81,756	37,506	45.88
May-08	368,833	186,574	50.58	301,869	162,926	53.97	66,964	23,647	35.31
Jun-08	585,027	151,718	25.93	519,832	120,263	23.14	65,194	31,455	48.25
April-June 2008	**1,364,953**	**510,462**	**37.40**	**1,151,039**	**417,854**	**36.30**	**213,915**	**92,608**	**43.29**

SGL Non-Repo Turnover excludes NDS-OM turnover

Source: NSE.

Chart 6-1: Share of WDM in Non-Repo Government Transaction



Settlement of Trades in Government Securities

During 2007-08, 215,455 trades in government securities amounting to Rs.56,026,020 million were settled by CCIL . Out of the total trades, 88% of the trades were outright transactions and the rest were Repo.(Table 6-9).

Table 6-9: Settlement of Trades in Government Securities

Month	Outright Transactions		Repo Transactions		Total		
	No. of Trades	Amount (Face Value in Rs.mn)	No. of Trades	Amount (Face Value in Rs.mn)	No. of Trades	Amount (Face Value in Rs.mn)	Amount (Face Value in US $ mn)
2001-02	7,131	389,190	524	159,300	7,655	548,480	11,239
2002-03	191,843	10,761,470	11,672	4,682,290	203,515	15,443,760	325,131
2003-04	243,585	15,751,330	20,972	9,431,890	264,512	25,183,220	580,392
2004-05	160,682	11,342,221	24,364	15,579,066	185,046	26,921,287	615,344
2005-06	125,509	8,647,514	25,673	16,945,087	151,182	25,592,601	573,696
2006-07	137,100	10,215,357	29,008	25,565,014	166,108	35,780,371	802,071
2007-08	188,843	16,538,512	26,612	39,487,508	215,455	56,026,020	1,401,702
April-June 2008	39,161	3,612,876	5,648	9,940,022	44,809	13,552,898	315,551

Source:CCIL Fact Book

Developments in WDM Segment of NSE

A total of 858 securities with a total outstanding debt of Rs. 5,225,106 million (US $ 130,726 million) were made available for trading in 2007-08. As at end March 2008, 3,566 securities were available for trading on the WDM Segment. Of which 601 securities were active during 2007-08 as compared to 762 in the previous year.

During 2007-08, the turnover in the WDM segment of NSE registered an increase of 28.84% to Rs.2,823,170 million (US$ 70,632 million) from Rs. 2,191,065 million (US $ 50,265 million) in 2006-07. The average daily turnover also increased from Rs. 8,980 million (US $ 206.01 million) to Rs.11,380 million (US$ 284.71 million) during the same period.

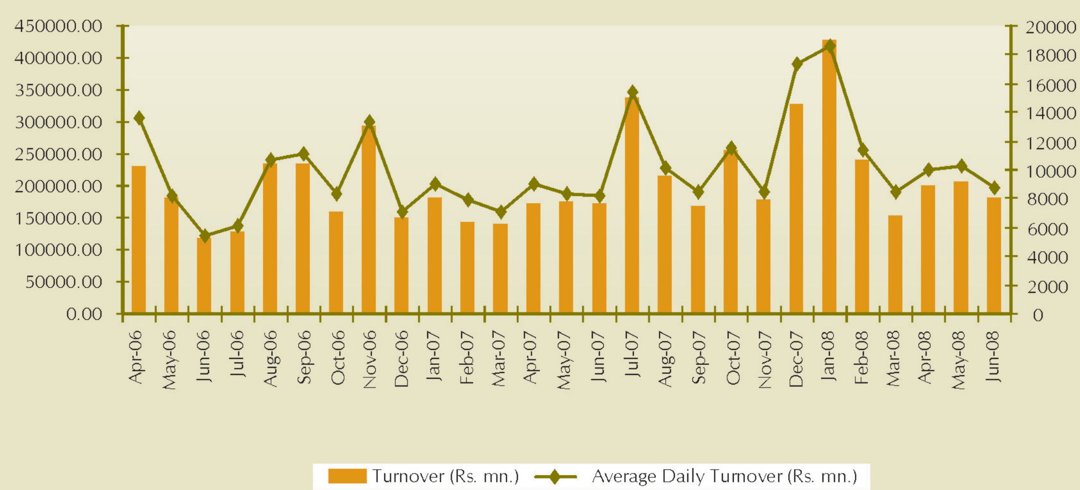
However, the average trade size increased from Rs.111.90 million (US $ 2.57 million) to Rs.174.50 (US$ 4.37 million) in 2007-08.The summary statement of business growth of WDM segment is presented in Table 6-10, Annexure 6-1 and Chart 6-2.

Table 6-10: Business Growth of WDM Segment of NSE

Parameter	2006-07	2007-08	April-June 2008
No. of Active Securities	762	601	449
No. of Trades	19,575	16,179	3172
No. of Retail Trades	399	211	115
Turnover (Rs. mn.)	2,191,065	2,823,170	587,825
Turnover (Rs.US $ mn)	***50,265***	***70,632***	**13,686**
Average Daily Turnover (Rs. mn.)	8,980	11,380	475
Average Daily Turnover (US $ mn)	**206.01**	***284.71***	***11.05***
Retail Turnover (Rs. mn.)	1,015	490	228
Retail Turnover (US $ mn)	***23.29***	***12.26***	***5.31***
Share of Retail Trades (%)	0.05	0.02	0.04
Average Trade Size (Rs. mn.)	111.9	174.50	185.32
Average Trade Size (US $ mn)	***2.57***	***4.37***	***4.31***
Average Size of Retail Trade (Rs. Mn.)	2.54	2.32	1.98
Average Size of Retail Trade (US $ mn)	***0.06***	***0.06***	***0.05***

Source: NSE.

Chart 6-2: Business Growth of WDM Segment



The highest turnover of Rs. 427,242 million (US $ 10,689 million) was witnessed in January 2008. The average daily turnover ranged between Rs.8,255 million (US $ 207million) and Rs. 18,576 million (US $ 465 million).

Securities Profile

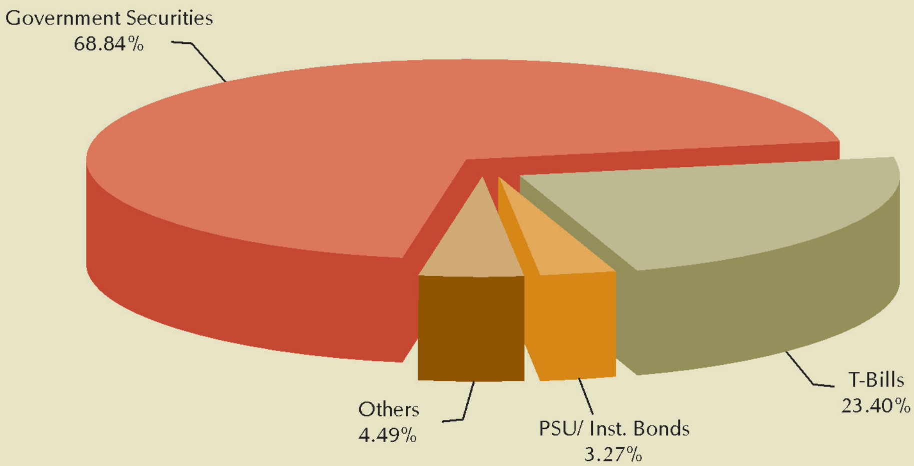
Long-term securities dominated the market during 2007-08 revealing the interest of investors to hold on to long term of assets. The turnover in Government securities increased by 26.72% in 2007-08 as compared to the previous year, and accounted for a turnover of Rs.1,943,442 million (US $ 48,623 million). Its share in total turnover was 68.84% in the 2007-08. (Table 6-11). The share of T-Bills in WDM turnover accounted for a share of 23.40% during 2007-08. The PSU bonds witnessed a significant growth of 109% in turnover and amounted to Rs. 61,501 million (US $ 1,539 million) in 2007-08 as against Rs.23,038 million (US $ 529 million) in 2006-07. (Chart 6-3).

Table 6-11: Security-wise Distribution of WDM Turnover

Month/Year	Turnover (Rs. mn)					Turnover (percent)			
	Government Securities	T-Bills	PSU/ Inst. Bonds	Others	Total WDM Turnover	Government Securities	T-Bills	PSU/ Inst. Bonds	Others
1994-95 (June-March)	30,264	26,337	8,239	2,970	67,812	44.63	38.84	12.15	4.38
1995-96	77,294	22,596	11,495	7,292	118,677	65.13	19.04	9.69	6.14
1996-97	273,522	109,570	27,692	11,992	422,776	64.70	25.92	6.55	2.84
1997-98	847,159	188,703	40,500	36,272	1,112,633	76.14	16.96	3.64	3.26
1998-99	845,757	107,051	50,414	51,469	1,054,691	80.19	10.15	4.78	4.88
1999-00	2,828,906	110,126	48,675	54,455	3,042,162	92.99	3.62	1.60	1.79
2000-01	3,909,520	231,434	78,859	66,002	4,285,815	91.22	5.40	1.84	1.54
2001-02	9,021,049	255,742	109,874	86,194	9,471,912	95.24	2.70	1.16	0.91
2002-03	10,005,182	322,748	199,847	159,237	10,687,014	93.62	3.02	1.87	1.49
2003-04	12,187,051	556,709	271,116	146,087	13,160,962	92.60	4.23	2.06	1.11
2004-05	7,248,302	1,248,422	178,346	197,866	8,872,936	81.69	14.07	2.01	2.23
2005-06	3,455,629	1,052,333	121,734	125,538	4,755,235	72.67	22.13	2.56	2.64
2006-07	1,533,697	519,541	44,178	93,648	2,191,065	70.00	23.71	2.02	4.27
Apr-07	120,986	43,068	1,647	5,885	171,587	70.51	25.10	0.96	3.43
May-07	116,055	47,782	1,853	9,144	174,835	66.38	27.33	1.06	5.23
Jun-07	99,643	62,095	2,566	9,049	173,352	57.48	35.82	1.48	5.22
Jul-07	226,321	72,600	22,960	16,265	338,146	66.93	21.47	6.79	4.81
Aug-07	141,934	53,555	8,894	9,922	214,305	66.23	24.99	4.15	4.63
Sep-07	124,334	32,774	3,668	8,265	169,024	73.56	19.39	2.17	4.89
Oct-07	117,651	112,298	12,747	12,237	254,932	46.15	44.05	5.00	4.80
Nov-07	109,145	55,466	4,550	7,878	177,039	61.65	31.33	2.57	4.45
Dec-07	262,890	55,674	3,155	6,935	328,654	79.99	16.94	0.96	2.11
Jan-08	320,816	63,531	16,192	26,703	427,242	75.09	14.87	3.79	6.25
Feb-08	190,139	32,435	10,074	7,790	240,439	79.08	13.49	4.19	3.24
Mar-08	113,552	29,371	4,009	6,682	153,615	73.92	19.12	2.61	4.35
2007-08	**1,943,470**	**660,622**	**92,318**	**126,760**	**2,823,170**	**68.84**	**23.40**	**3.27**	**4.49**
Apr-08	134,674	37,498	18,858	7,897	198,928	67.7	18.85	9.48	3.97
May-08	162,937	23,651	12,001	7,973	206,563	78.88	11.45	5.81	3.86
Jun-08	120,268	31,453	16,556	14,058	182,334	65.96	17.25	9.08	7.71
April-June 2008	**417,854**	**92,608**	**29,706**	**47,657**	**587,825**	**71.08**	**15.75**	**5.05**	**8.11**

Source : NSE

Chart 6-3: Security-wise Distribution of Turnover, 2007-08



The share of top '10' securities has increased to 53.31% in 2007-08 as compared to 51.29% in 2006-07 (Table 6-13). Top 50 securities accounted for 79.64 % of turnover in 2006-07.

Participant Profile

Indian banks, foreign banks and PDs together accounted for over 59.51% of WDM turnover during 2007-08 and 65.22% of the WDM turnover during April-June 2008. The share of the Indian banks fell from 26.03% in 2006-07 to 23.78% in 2007-08. Though the trading member's contribution was the highest at 38.15% during 2007-08 while during April-June 2008, the contribution of foreign banks was 38.41% . (Table 6-12 and Chart 6-4)

Chart 6-4: Participant-wise Distribution of Turnover, 2007-08

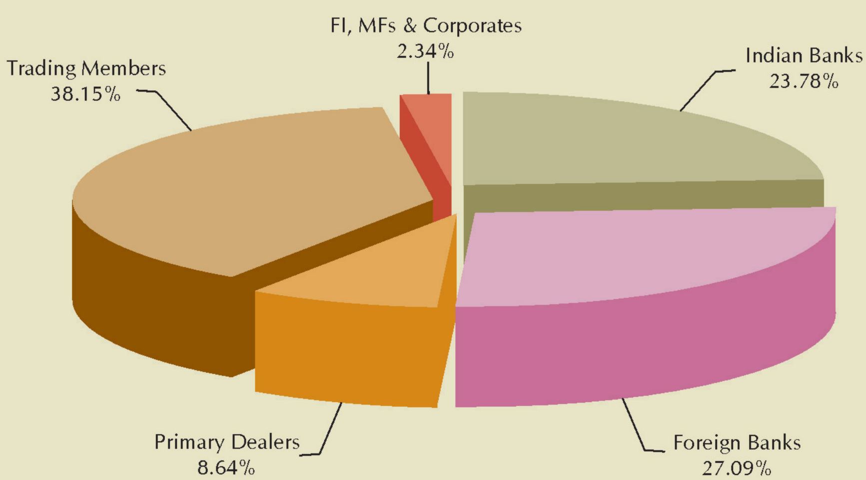


Table 6-12: Participant wise Distribution of WDM Turnover

Month/Year	Turnover (Rs.mn)					Turnover (percent)				
	Trading Members	FIs/MFs/ Corporates	Primary Dealers	Indian Banks	Foreign Banks	Trading Members	FIs/MFs/ Corporates	Primary Dealers	Indian Banks	Foreign Banks
1994-95 (June-March)	39,209	4,360	14	9,602	14,627	57.82	6.43	0.02	14.16	21.57
1995-96	27,865	9,019	1,377	35,686	44,729	23.48	7.60	1.16	30.07	37.69
1996-97	97,027	16,108	25,789	126,875	156,977	22.95	3.81	6.10	30.01	37.13
1997-98	219,745	47,843	134,184	458,850	252,011	19.75	4.30	12.06	41.24	22.65
1998-99	163,266	51,996	154,407	444,236	240,786	15.48	4.93	14.64	42.12	22.83
1999-00	566,755	127,162	590,788	1,299,612	457,845	18.63	4.18	19.42	42.72	15.05
2000-01	996,023	179,147	948,879	1,437,462	724,303	23.24	4.18	22.14	33.54	16.90
2001-02	2,227,794	394,032	2,131,180	3,466,720	1,252,187	23.52	4.16	22.50	36.60	13.22
2002-03	2,651,448	402,900	2,354,349	4,143,355	1,134,961	24.81	3.77	22.03	38.77	10.62
2003-04	4,580,015	600,140	2,241,312	4,785,326	954,170	34.80	4.56	17.03	36.36	7.25
2004-05	3,013,249	456,069	1,641,493	2,652,121	1,110,004	33.96	5.14	18.50	29.89	12.51
2005-06	1,522,151	186,405	1,040,921	1,334,794	670,964	32.01	3.92	21.89	28.07	14.11
2006-07	676,601	59,159	434,269	570,334	450,702	30.88	2.70	19.82	26.03	20.57
Apr-07	52,060	3,192	29,015	48,113	39,208	30.34	1.86	16.91	28.04	22.85
May-07	71,403	1,346	19,616	41,418	41,051	40.84	0.77	11.22	23.69	23.48
Jun-07	65,995	2,687	22,466	48,140	34,046	38.07	1.55	12.96	27.77	19.64
Jul-07	136,036	11,497	41,490	92,720	56,403	40.23	3.40	12.27	27.42	16.68
Aug-07	98,066	6,065	16,330	40,868	52,976	45.76	2.83	7.62	19.07	24.72
Sep-07	76,703	3,380	8,874	37,760	42,307	45.38	2.00	5.25	22.34	25.03
Oct-07	123,795	3,977	14,123	60,572	52,465	48.56	1.56	5.54	23.76	20.58
Nov-07	73,471	3,381	12,375	30,150	57,662	41.50	1.91	6.99	17.03	32.57
Dec-07	106,385	7,921	23,630	84,661	106,056	32.37	2.41	7.19	25.76	32.27
Jan-08	161,540	12,262	30,035	94,292	129,112	37.81	2.87	7.03	22.07	30.22
Feb-08	72,012	7,574	18,634	60,470	81,749	29.95	3.15	7.75	25.15	34.00
Mar-08	39,587	2,734	7,450	32,182	71,661	25.77	1.78	4.85	20.95	46.65
2007-08	**1,077,039**	**66,062**	**243,922**	**671,350**	**764,797**	**38.15**	**2.34**	**8.64**	**23.78**	**27.09**
Apr-08	70,162	3,998	11,021	32,326	81,421	35.27	2.01	5.54	16.25	40.93
May-08	55,834	3,615	17,393	55,400	74,321	27.03	1.75	8.42	26.82	35.98
Jun-08	67,555	3,300	8,406	33,057	70,016	37.05	1.81	4.61	18.13	38.40
April-June 2008	**193,571**	**10,875**	**36,798**	**120,798**	**225,784**	**32.93**	**1.85**	**6.26**	**20.55**	**38.41**

Source : NSE

Top '50' trading members accounted for the total turnover of WDM in 2007-08, which is indicative of the narrow membership structure of WDM segment (Table 6-13). As on June 30, 2008, there were 62 members on the WDM segment.

Market Capitalisation

Market capitalisation of the WDM segment has witnessed a constant increase. The total market capitalisation of securities available for trading on WDM segment stood at Rs.21,233,463 million (US $ 531,235 million) as at end-March 2008, registering a growth of 18.97% over end-March 2008. The market capitalisation at the end of June 2008 was Rs.21,949,609 million (US$ 511,050 million). The relative shares of different securities in market capitalisation maintained the trend of 2006-07 with the Government securities accounting for the highest share of 65.57% of total market capitalisation at the end of March 2008 (Chart 6-5). The growth of market capitalisation of WDM is presented in Table 6-14

Table 6-13: Share of Top 'N' Securities/Trading Members/ Participants in Turnover in WDM Segment

Year	In Percent				
	Top 5	Top 10	Top 25	Top 50	Top 100
Securities					
1994-95	42.84	61.05	80.46	89.81	97.16
1995-96	57.59	69.46	79.60	86.58	93.24
1996-97	32.93	48.02	65.65	78.32	90.17
1997-98	30.65	46.92	71.25	85.00	92.15
1998-99	26.81	41.89	64.30	78.24	86.66
1999-00	37.11	55.57	82.12	90.73	95.28
2000-01	42.20	58.30	80.73	89.97	95.13
2001-02	51.61	68.50	88.73	94.32	97.19
2002-03	43.10	65.15	86.91	92.74	96.13
2003-04	37.06	54.43	81.58	90.66	95.14
2004-05	43.70	57.51	71.72	80.59	89.55
2005-06	47.42	59.78	72.02	81.04	89.36
2006-07	40.90	51.29	65.82	77.15	86.91
2007-08	**39.65**	**53.31**	**68.35**	**79.64**	**49.55**
April-June 2008	**40.42**	**55.55**	**71.30**	**84.42**	**94.38**
Trading Members					
1994-95	51.99	73.05	95.37	100.00	--
1995-96	44.36	68.58	96.10	100.00	--
1996-97	30.02	51.27	91.57	99.96	100.00
1997-98	27.17	47.85	83.38	99.82	100.00
1998-99	29.87	50.45	86.55	99.98	100.00
1999-00	32.38	53.41	84.46	100.00	--
2000-01	35.17	54.25	86.82	100.00	--
2001-02	35.18	58.68	88.36	100.00	--
2002-03	31.77	53.71	85.49	100.00	--
2003-04	30.72	53.01	86.71	100.00	--
2004-05	35.75	56.84	86.74	100.00	--
2005-06	39.68	60.63	89.38	100.00	--
2006-07	57.75	78.01	96.43	100.00	--
2007-08	**65.32**	**80.24**	**97.60**	**100.00**	--
April-June 2008	**76.16**	**89.79**	**99.45**	**100.00**	**--**
Participants					
1994-95	18.37	27.38	38.40	42.20	--
1995-96	29.66	47.15	70.49	76.32	76.58
1996-97	25.27	44.92	67.00	76.33	77.10
1997-98	23.60	38.96	65.59	77.96	80.22
1998-99	22.47	37.39	62.79	79.27	84.51
1999-00	15.54	27.87	52.51	74.76	81.32
2000-01	17.51	28.85	50.64	69.72	76.78
2001-02	17.49	29.25	50.19	69.16	76.49
2002-03	17.27	28.29	49.22	68.14	75.20
2003-04	16.66	25.69	44.25	59.87	65.17
2004-05	16.82	28.64	47.24	61.71	66.00
2005-06	17.50	30.53	53.61	65.84	67.97
2006-07	25.85	40.65	59.99	68.17	69.09
2007-08	**28.36**	**40.64**	**55.58**	**61.77**	**61.84**
April-June 2008	**34.39**	**47.87**	**62.83**	**67.08**	**67.09**

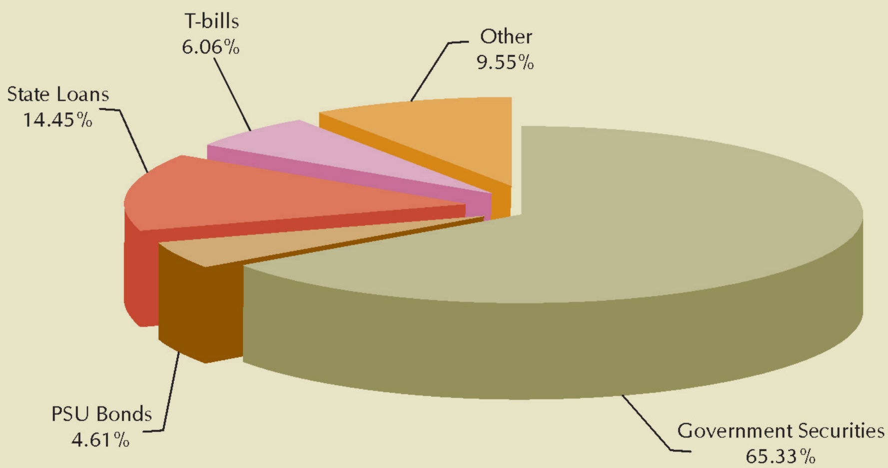
Source: NSE.

Table 6-14: Market Capitalisation of WDM Securities

Month/Year (end of period)	Market Capitalisation (In Rs. mn.)							(In per cent)				
	Govt. Securities	PSU bonds	State loans	T-bills	Others	Total	Total (US $ mn.)	Govt. securities	PSU bonds	State loans	T-bills	Others
Mar-00	3,198,650	393,570	394,770	153,450	799,890	4,940,330	113,257	64.75	7.97	7.99	3.11	16.19
Mar-01	3,972,280	363,650	446,240	177,250	848,940	5,808,360	124,536	68.39	6.26	7.68	3.05	14.62
Mar-02	5,426,010	399,440	613,850	238,490	890,160	7,567,950	155,081	71.70	5.28	8.11	3.15	11.76
Mar-03	6,580,017	383,828	720,940	349,188	610,839	8,644,812	181,996	76.12	4.44	8.34	4.04	7.06
Mar-04	9,593,017	568,319	793,403	326,920	876,979	12,158,638	280,218	78.90	4.67	6.53	2.69	7.21
Mar-05	10,061,070	683,981	2,232,082	735,018	905,193	14,617,344	334,111	68.83	4.68	15.27	5.03	6.19
Mar-06	10,597,890	887,160	2,419,270	701,860	1,069,560	15,675,740	351,395	67.61	5.66	15.43	4.48	6.82
Mar-07	11,822,777	896,275	2,498,474	1,151,827	1,478,652	17,848,006	409,452	66.24	5.02	14.00	6.45	8.28
Apr-07	11,881,845	902,892	2,458,876	1,194,330	1,531,337	17,969,280	449,569	66.12	5.02	13.68	6.65	8.53
May-07	11,937,486	902,926	2,471,047	1,258,924	1,556,343	18,126,726	453,508	65.86	4.98	13.63	6.95	8.58
Jun-07	12,161,753	889,404	2,503,989	1,443,752	1,616,191	18,615,089	465,727	65.33	4.78	13.45	7.76	8.68
Jul-07	12,523,073	912,995	2,476,140	1,505,134	1,628,661	19,046,003	476,507	65.75	4.79	13.00	7.90	8.55
Aug-07	12,683,436	902,834	2,556,007	1,549,239	1,676,548	19,368,064	484,565	65.49	4.66	13.20	8.00	8.66
Sep-07	12,821,085	914,671	2,586,826	1,454,368	1,768,915	19,545,865	489,013	65.59	4.68	13.23	7.44	9.05
Oct-07	13,095,794	920,936	2,633,288	1,554,732	1,805,854	20,010,603	500,641	65.44	4.60	13.16	7.77	9.02
Nov-07	13,149,848	946,256	2,686,667	1,436,503	1,848,156	20,067,429	502,062	65.53	4.72	13.39	7.16	9.21
Dec-07	13,184,187	942,875	2,789,658	1,241,693	1,867,399	20,025,812	501,021	65.84	4.71	13.93	6.20	9.32
Jan-08	13,574,854	965,415	2,943,411	1,243,929	1,971,044	20,698,653	517,855	65.58	4.66	14.22	6.01	9.53
Feb-08	13,865,662	974,328	3,071,123	1,206,648	2,013,001	21,130,762	528,666	65.62	4.61	14.53	5.71	9.53
Mar-08	**13,922,192**	**962,685**	**3,156,607**	**1,115,621**	**2,076,357**	**21,233,463**	**531,235**	**65.57**	**4.53**	**14.87**	**5.25**	**9.77**
Apr-08	14,376,427	985,243	3,147,158	1,102,799	2,074,881	21,686,508	504,925	66.29	4.54	14.51	5.09	9.57
May-08	14,387,430	988,451	3,179,717	1,264,692	2,101,541	21,921,831	510,404	65.63	4.51	14.50	5.77	9.59
Jun-08	**14,340,716**	**1,010,848**	**3,170,955**	**1,330,607**	**2,096,483**	**21,949,609**	**511,050**	**65.33**	**4.61**	**14.45**	**6.06**	**9.55**

Source : NSE

Chart 6-5: Market Capitalisation of WDM Segment at the end of June 2008



Yields

The yields (yield-to-maturity) on government and corporate securities of different maturities of 0-1 year, 5-6 years, 9-10 years and above 10 years are presented in (Table 6-15). The yields on government and corporate securities showed an upward trend through out 2007-08.

Table 6-15: Yields on Government and Corporate Securities, 2006-07

Month/ Year	Government Securities				Corporate Securities			
	0-1 year	5-6 years	9-10 years	Above 10 years	0-1 year	5-6 years	9-10 years	Above 10 years
Apr-06	5.88	6.88	7.16	7.45	6.88	7.33	8.32	8.33
May-06	5.82	6.85	7.45	7.88	6.71	7.96	8.15	8.61
Jun-06	7.02	7.90	8.23	8.55	6.94	6.76	8.65	8.88
Jul-06	6.49	7.47	8.20	8.68	6.89	7.62	8.93	9.24
Aug-06	6.55	7.52	8.04	8.27	6.96	7.96	9.23	9.32
Sep-06	6.61	7.41	7.73	7.95	7.50	8.46	8.98	8.85
Oct-06	6.69	7.40	7.75	7.98	7.71	8.35	8.82	8.87
Nov-06	6.76	7.36	7.61	7.61	7.88	8.32	8.79	8.86
Dec-06	6.96	7.53	7.54	7.59	9.22	8.42	9.11	8.93
Jan-07	7.19	7.62	7.65	7.73	9.03	9.04	9.06	9.00
Feb-07	7.36	7.86	7.91	8.07	10.72	9.37	9.44	9.05
Mar-07	7.40	8.00	8.09	8.27	10.82	10.09	9.57	9.85
Apr-07	7.34	8.14	8.14	8.45	9.60	10.53	10.04	10.12
May-07	7.30	8.02	8.17	8.39	9.72	10.30	10.00	10.04
Jun-07	7.02	7.90	8.23	8.49	8.63	10.11	10.08	10.30
Jul-07	5.24	7.26	7.86	8.17	7.46	8.78	9.65	9.52
Aug-07	6.73	7.69	7.90	8.30	8.78	9.42	9.57	9.69
Sep-07	7.10	7.68	7.83	8.34	8.74	9.36	9.97	9.91
Oct-07	6.97	7.72	7.87	8.40	8.42	9.17	9.58	9.62
Nov-07	7.47	7.77	7.90	8.28	0.00	9.09	9.45	9.58
Dec-07	7.58	7.79	7.87	8.16	8.69	9.04	9.39	9.45
Jan-08	7.11	7.48	7.60	7.88	8.94	8.98	9.06	9.22
Feb-08	7.15	7.45	7.53	7.78	9.71	9.17	9.24	9.37
Mar-08	7.24	7.55	7.69	8.20	8.54	9.45	9.38	9.47
Apr-08	7.10	7.85	8.00	8.46	8.82	9.53	9.49	9.65
May-08	7.31	7.83	7.97	8.54	8.75	9.40	9.64	9.62
Jun-08	8.30	8.58	8.40	9.15	9.81	10.02	9.88	9.97

Source: NSE.

WDM Products

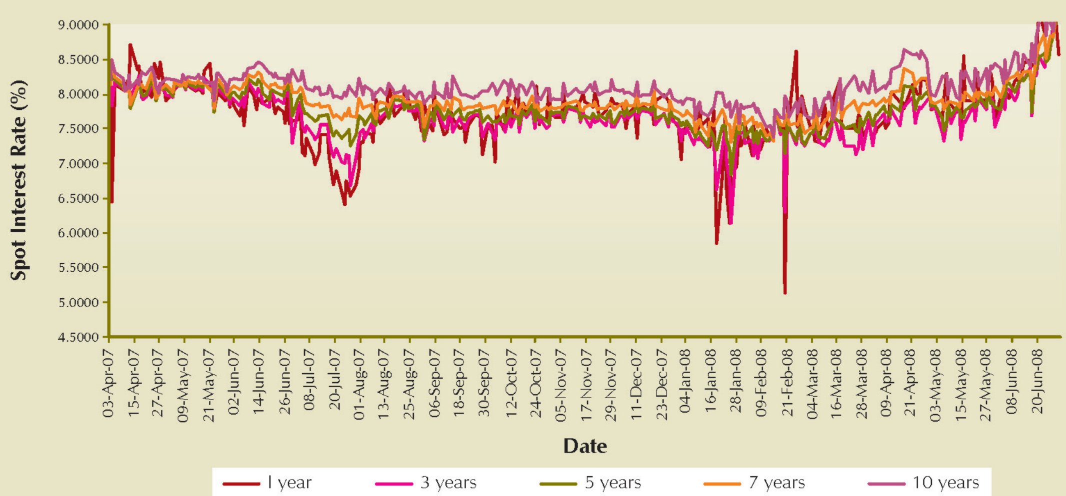
Zero Coupon Yield Curve

Keeping in mind the requirements of the banking industry, financial institutions, mutual funds, insurance companies, that have substantial investment in sovereign papers, NSE disseminates a 'Zero Coupon Yield Curve' (NSE Zero Curve) to help in valuation of securities across all maturities irrespective of its liquidity in the market. This product has been developed by using Nelson-Siegel model to estimate the term structure of interest rate at any given point of time and been successfully tested by using daily WDM trades data. This is being disseminated daily.

The ZCYC depicts the relationship between interest rates in the economy and the associated terms to maturity. It provides daily estimates of the term structure of interest rates using information on secondary market trades in government securities from the WDM segment. The term structure forms the basis for the valuation of all fixed income instruments. Modeled as a series of cash flows due at different points of time in the future, the underlying price of such an instrument is calculated as the net present value of the stream of cash flows. Each cash flow, in such a formulation, is discounted using the interest rate for the associated term to maturity; the appropriate rates are read off the estimated ZCYC. Once estimated, the interest rate-maturity mapping is used to compute underlying valuations even for securities that do not trade on a given day. The daily ZCYC captures the changes in term structure, and is used to track the value of portfolios of government securities on a day-to-day basis.

The estimates of daily ZCYC are available from February 1998. (Chart 6-6) plots the spot interest rates at different maturities for the period April 2007 till June 2008.

Chart 6-6: Zero Coupon Yield Curve, 2007-08

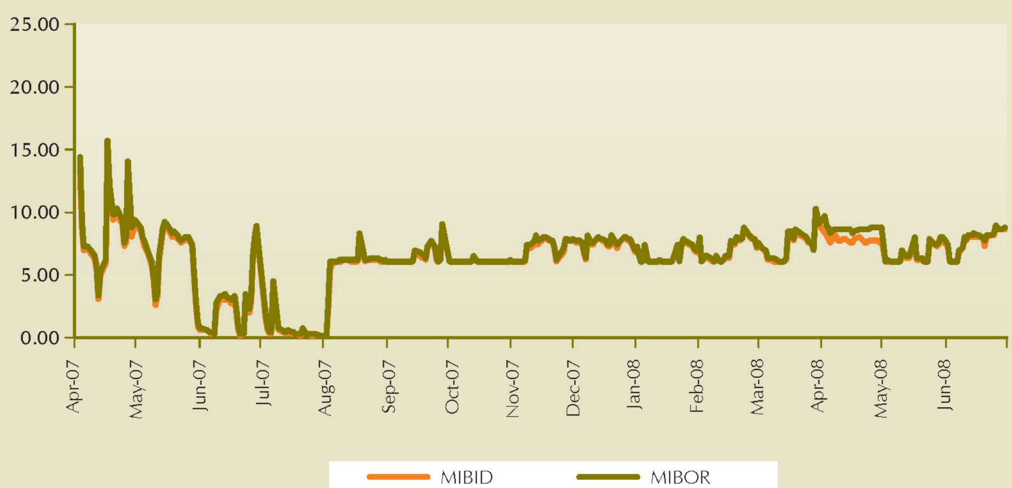


FIMMDA-NSE MIBID /MIBOR

A reference rate is an accurate measure of the market price. In the fixed income market, it is an interest rate that the market respects and closely matches. On these lines, NSE has been computing and disseminating the NSE Mumbai Inter-bank Bid Rate (MIBID) and NSE Mumbai Inter-bank Offer Rate (MIBOR) for the overnight money market from June 15, 1998, the 14-day

MIBID/MIBOR from November 10, 1998 and the 1 month and 3 month MIBID/MIBOR from December 1, 1998. In view of the robust methodology of computation of these rates and their extensive use by market participants, these have been co-branded with Fixed Income and Money Market Dealers Association (FIMMDA) from March 4, 2002. These are now known as FIMMDA-NSE MIBID/MIBOR. (Chart 6-7) presents overnight FIMMDA-NSE MIBID/MIBOR from April 2006 to March 2007. The FIMMDA-NSE MIBID/MIBOR rates for month ends are presented in (Annexure 6-2). The daily FIMMDA-NSE MIBID/MIBOR rates are available at www.nseindia.com.

Chart 6-7: Overnight NSE-FIMMDA MIBID/MIBOR Rates, 2007-08



The overnight MIBID/MIBOR rates ruled fairly steady within a narrow range during the year 2007-08 and for the period April-June 2008. These rates touched the peak of 58.15% and 68.27%, respectively, on March 30, 2007 and the low of 5.50% and 5.60%, respectively, on May 31, 2006. The rates have been particularly stable during the current financial year, reflective of a stable interest rate environment, and have been hovering around 5-7%. The stability of the rates in overnight call market may be due to the guidelines issued by RBI moving non-banks from the call market in a phased manner.

FIMMDA-NSE MIBID/MIBOR are based on rates polled by NSE from a representative panel of 33 banks/institutions/ primary dealers. Currently, quotes are polled and processed daily by the Exchange at 0940 (IST) for overnight rate, at 1130 (IST) for the 14 day, 1 month and 3 month rates and 0940 (IST) for 3 Day rate as on the last working day of the week . The rates polled are then processed using the bootstrap method to arrive at an efficient estimate of the reference rates. The overnight rates are disseminated daily and 3 Day rate are disseminated on the last working day of the week to the market at about 0955 (IST) and the 14 day, 1 month and 3 month rates at about 1145 (IST).Overnight Rates for Saturdays is calculated and disseminated at 1030Hrs

NSE-VaR System

NSE has developed a VaR system for measuring the market risk inherent in Government of India (GOI) securities. NSE-VaR system builds on the NSE database of daily yield curves (ZCYC) and provides measures of VaR using 5 alternative methods (variance-covariance, historical simulation method, weighted normal, weighted historical simulation and extreme value method). Together, these 5 methods provide a range of options for market participants to choose from.

NSE-VaR system releases daily estimates of security-wise VaR at 1-day and multi-day horizons for securities traded on WDM segment of NSE and all outstanding GoI securities with effect from January 1, 2002. Participants can compute their portfolio risk as weighted average of security-wise VaRs, the weights being proportionate to the market value of a given security in their portfolio. 1-day VaR (99%) measure for GoI Securities traded on NSE-WDM on June 30, 2008 is presented in (Table 6-16). The VaR for other GOI securities are available at www.nseindia.com.

Table 6-16: 1-day VaR (99%) for GoI Securities Traded on NSE-WDM as on June 30, 2008

Security Type	Security Name	Issue Name	VaR (%)					Clean Price (off NSE-ZCYC)
			Normal	Weighted Normal	Historical Simulation	Weighted Historical Simulation	EVT	
GS	CG2009	5.48%	0.6100	0.8790	0.7620	0.6420	0.7120	96.6920
GS	CG2009	6.96%	0.5380	0.7840	0.6960	0.8100	0.6440	98.4160
GS	CG2010	5.87%	0.7350	1.1030	0.9620	0.7800	0.8500	95.3800
GS	CG2024	8.03%	2.5610	5.9070	2.9190	11.8250	2.1750	86.6620
GS	CG2026	8.40%	2.7340	6.4440	3.1250	13.2010	2.3590	89.2730
GS	CG2027	8.24%	2.9010	6.9160	3.3400	7.2170	2.5060	87.6540
GS	CG2036	8.33%	4.3120	9.5770	5.5280	11.3590	3.9890	86.6780
TB	182D	261208	0.4120	0.6190	0.5190	0.4850	0.4850	95.7060
TB	364D	100409	0.5520	0.8010	0.7160	0.8320	0.6580	93.2580
TB	364D	190609	0.6210	0.8950	0.7780	0.6450	0.7280	91.6550
TB	91D	150808	0.1380	0.2190	0.1850	0.1730	0.1640	98.8820

Bond Index

Market participants are familiar with the equity Indices such as the Nifty 50 and the BSE Sensex. These have been around for years and are very popular as benchmarks. These are comparatively easy to construct due to the high liquidity of many equities across several industry categories. In contrast, designing debt indices posed as a challenge in India as the breadth and depth of the debt market has not been very promising. There were also a few additional difficulties in construction and maintenance of debt indices. First, on account of the fixed maturity of bonds vis-à-vis the perpetuity of equity, the universe of bonds changes frequently (new issues come in while existing issues are redeemed). Secondly, while market prices for the constituents of an equity index are normally available on all trading days over a long period of time, market prices of constituent bonds in a bond index, irrespective of the selection criteria used, may not be available daily. This is on account of the fact that the liquidity of a security varies over its lifetime and, in addition, can witness significant fluctuations over a short period. However, market participants need an index to compare their performance with as well as the performance of different classes of assets.

A widely tracked benchmark in this context is the ICICI Securities' (Isec) bond index (i-BEX), which measures the performance of the bond markets by tracking returns on government securities. There are also other indices like NSE's G-Sec Index and NSE's T-Bills Index. These have emerged as the benchmark of choice across all classes of market participants - banks, financial institutions, primary dealers, provident funds, insurance companies, mutual funds and foreign institutional investors. It has two variants, namely, a Principal Return Index (PRI) and Total Return Index (TRI). The PRI tracks the price movements of bonds or capital gains/losses since the base date. It is the movement of prices quoted in the market and could be seen as the mirror image of yield movements. During 2007-08, the PRI of i-BEX and NSE G-Sec Index increased by 2.03 % and 0.78% respectively. The TRI tracks the total returns available in the bond market. It captures both interest accruals and capital gains/losses. In a declining interest rate scenario, the index gains on account of interest accrual and capital gains, while losing on reinvestment income. As against this, during rising interest rate periods, the interest accrual and reinvestment income is offset by capital losses. Therefore, the TRI typically has a positive slope except during periods when the drop in market prices is higher than the interest accrual. During 2007-08, the TRI registered rise of 9.23% and 6.93 % for i-BEX and NSE G-Sec Index respectively.

While constructing the NSE-Government Securities Index prices are used from NSE ZCYC so that the movements reflect returns to an investor on account of change in interest rates. The index provides a benchmark for portfolio management by various investment managers and gilt funds. The movements of popular fixed income indices at monthly rates are presented in (Table 6-17)

Table 6-17: Debt Market Indices, 2007-08 and April-June 2008

At the end of the month	I Sec I-BEX (Base August 1, 1994 = 1000)		NSE-T-Bills Index		NSE-G Sec Index	
	TRI	PRI	TRI	PRI	TRI	PRI
Apr-05	3618.70	1294.29	198.56	198.56	237.68	117.26
May-05	3701.75	1316.10	199.20	199.20	239.46	117.42
Jun-05	3758.31	1328.02	200.23	200.23	243.71	118.92
Jul-05	3758.06	1319.44	201.42	201.42	244.23	118.48
Aug-05	3771.29	1315.55	202.52	202.52	242.50	117.28
Sep-05	3791.01	1313.83	203.31	203.31	243.21	117.16
Oct-05	3820.32	1315.54	204.20	204.20	244.00	117.25
Nov-05	3845.28	1315.63	205.16	205.16	244.79	116.93
Dec-05	3868.40	1314.93	205.75	205.75	249.19	118.38
Jan-06	3851.46	1300.30	206.81	206.81	244.73	115.80
Feb-06	3858.77	1294.54	207.64	207.64	244.56	115.00
Mar-06	3851.96	1282.36	209.16	209.16	244.03	114.25
Apr-06	3894.74	1288.17	210.99	210.99	244.24	114.09
May-06	3878.34	1273.56	210.95	210.95	240.92	112.08
Jun-06	3820.07	1245.31	211.25	211.25	242.84	112.29
Jul-06	3821.74	1236.92	212.87	212.87	233.69	107.95
Aug-06	3899.46	1253.58	214.51	214.51	240.51	110.5
Sep-06	3975.15	1269.72	215.45	215.45	244.61	111.95
Oct-06	4018.27	1274.90	216.16	216.16	244.91	111.53
Nov-06	4128.44	1301.83	217.98	217.98	252.04	114.18
Dec-06	4100.89	1284.33	218.39	218.39	250.07	112.51
Jan-07	4066.43	1264.38	220.24	220.24	248.68	111.08
Feb-07	4068.54	1256.91	221.21	221.21	248.02	110.26
Mar-07	4076.09	1250.01	222.52	222.52	246.91	109.40
Apr-07	4069.77	1239.62	224.19	224.19	246.89	108.70
May-07	4114.76	1245.33	225.61	225.61	247.79	108.46
Jun-07	4130.32	1241.87	227.15	227.15	254.61	110.78
Jul-07	4253.34	1271.47	229.17	229.17	256.55	111.20
Aug-07	4231.31	1256.53	230.03	230.03	261.09	112.64
Sep-07	4251.29	1254.59	231.44	231.44	256.39	110.02
Oct-07	4297.44	1260.58	232.50	232.50	258.24	110.12
Nov-07	4315.46	1258.08	234.08	234.08	259.29	110.06
Dec-07	4383.47	1270.47	235.58	235.58	262.58	110.73
Jan-08	4480.57	1291.24	237.26	237.26	268.01	112.30
Feb-08	4488.96	1285.74	238.51	238.51	269.25	112.33
Mar-08	4445.35	1264.82	239.71	239.71	264.01	109.55
Apr-08	4411.69	1247.01	241.18	241.18	265.37	109.66
May-08	4412.02	1239.23	242.83	242.83	265.93	109.32
Jun-08	**4289.21**	**1196.03**	**243.85**	**243.85**	**249.21**	**101.85**

Source: ICICI Securities and NSE

Policy Debate[2]

Repos in corporate bonds

A repo market is an important constituent of a well functioning corporate debt market. In a repo trade, a market participant pledges a corporate paper in exchange for funds for a specific period and at a rate determined by the market. Secondary market trading cannot take place unless there are enough dealers offering quotes in the market. Since dealers operate with funded portfolios, they will be able to offer quotes at low spreads only if they are able to carry their stocks at a low cost. Repos allow them to do this by enabling them to borrow against the securities in their inventory.

Repo transactions are currently permitted only in the Central government securities, treasury bills and state development loans. The success of the government securities market owes a lot to the work done by Primary Dealers (PDs) appointed by RBI. PDs have access to both call and repo market for their funding. As more and more participants have been phased out of the call market, the dependence on repos has grown. Today, direct market repos and third party repos are both important sources of finance for dealers in government securities.

The absence of a similar arrangement for corporate repos acts a serious dampener for this market. Banks are currently not allowed to enter into repo contracts on securities other than government securities. This puts corporate bonds at a considerable disadvantage. As a result the secondary market for corporate bonds remains dormant. The use of tripartite repos overcomes many of the systemic risk concerns that arise out of direct repos, and a product on the lines described below will result in the creation of secondary market liquidity for corporate bonds.

The above has been highlighted by the Government appointed High Level Committee on Corporate Bonds and Securitisation, December, 2005 (R. H. Patil Committee). The Committee has, inter-alia, recommended that in order to improve secondary market trading, repos in corporate bonds should be permitted to be operated by the proposed clearing entities for corporate bonds. It will give an opportunity to investors who have illiquid corporate bonds to recycle the same and borrow money against these securities.

The Report of Committee on Infrastructure Financing, May 2007 (Deepak Parikh Committee) has also pointed out that secondary market trading in corporate bonds cannot take place unless there are enough dealers offering quotes in the market. Since dealers operate with funded portfolios, they are able to offer quotes at low spreads only if they can carry their stocks at a low cost. The success of government securities market is due to the availability of repos which enable the dealers to carry their stocks at a low cost. The absence of similar arrangement for corporate bond market puts it at a considerable disadvantage.

Regulators need to take steps to introduce repos in corporate bonds to enhance the liquidity in these markets.

2 The views and approaches reflected in the policy debates are not necessarily of the NSE.

Annexure 6-1: Business Growth of WDM Segment

Month/Year	All Trades							Retail Trades			
	No. of Active Securities	Number of Trades	Turnover (Rs. mn.)	Average Daily Turnover (Rs. mn.)	Average Trade Size (Rs. mn.)	Turnover (US $ mn.)	Average Daily Turnover (US $ mn.)	Number of Trades	Turnover (Rs. mn.)	Turnover (US $ mn.)	Share in Total Turnover (%)
2000-01	**1,038**	**64,470**	**4,285,815**	**14,830**	**66.48**	**91,891**	**318**	**498**	**1,318**	28.26	**0.03**
2001-02	**979**	**144,851**	**9,471,912**	**32,775**	**65.39**	**194,097**	**672**	**378**	**1,094**	22.42	**0.01**
2002-03	**1,123**	**167,778**	**10,687,014**	**35,983**	**63.70**	**224,990**	758	**1,252**	**2,995**	**63.05**	**0.03**
2003-04	**1,078**	**189,518**	**13,160,962**	**44,765**	**69.44**	**303,318**	**1,032**	**1,400**	**3,317**	**76.45**	**0.03**
2004-05	**1,151**	**124,308**	**8,872,936**	**30,283**	**71.38**	**202,810**	**692**	**1,278**	**4,101**	**93.74**	**0.05**
2005-06	**897**	**61,891**	**4,755,235**	**17,547**	**76.83**	**106,596**	**393**	**892**	**3,104**	**69.58**	**0.07**
2006-07	**762**	**19,575**	**2,191,065**	**8,980**	**111.93**	**50,265**	**206**	**399**	**1,015**	**23.29**	**0.05**
Apr-07	98	928	171,587	9,031	184.90	4,293	226	12	30	0.75	0.02
May-07	145	1,093	174,835	8,326	159.96	4,374	208	18	60	1.50	0.03
Jun-07	143	1,065	173,352	8,255	162.77	4,337	207	38	60	1.50	0.03
Jul-07	184	2,089	338,146	15,370	161.90	8,460	385	9	30	0.75	0.01
Aug-07	128	1,230	214,305	10,205	174.20	5,362	255	8	40	1.00	0.02
Sep-07	148	934	169,024	8,451	180.97	4,229	211	27	40	1.00	0.02
Oct-07	147	1,411	254,932	11,588	180.67	6,378	290	10	40	1.00	0.02
Nov-07	110	1,083	177,039	8,430	163.47	4,429	211	7	20	0.50	0.01
Dec-07	117	1,585	328,654	17,298	207.40	8,223	433	12	40	1.00	0.01
Jan-08	144	2,359	427,242	18,576	181.11	10,689	465	27	70	1.75	0.02
Feb-08	118	1,497	240,439	11,449	160.61	6,015	286	7	20	0.50	0.01
Mar-08	148	905	153,615	8,534	169.70	3,843	214	36	40	1.00	0.03
2007-08	**601**	**16,179**	**2,823,170**	**11,380**	**174.50**	**70,632**	**285**	**211**	**490**	**12.26**	**0.02**
Apr-08	122	1,016	198,928	9,946	195.80	4,632	232	6	21	0.49	0.01
May-08	137	1,200	206,563	10,328	172.10	4,809	240	3	4	0.09	0.00
Jun-08	190	956	182,334	8,683	190.70	4,245	202	106	203	4.73	0.11
April-June 2008	**449**	**3,172**	**587,825**	**28,957**	**185.32**	**13,686**	**674**	**115**	**228**	**5.31**	**0.04**

Source : NSE

Annexure 6-2: FIMMDA NSE MIBID/MIBOR Rates

(In percent)

Month/Date	OVERNIGHT AT 9.40 a.m.		14 DAY AT 11.30 a.m.		1 MONTH RATE AT 11.30 a.m.		3 MONTH RATE AT 11.30 a.m.	
	MIBID	MIBOR	MIBID	MIBOR	MIBID	MIBOR	MIBID	MIBOR
29-Apr-06	5.57	5.68	5.64	6.16	5.91	6.45	6.37	6.97
31-May-06	5.50	5.60	5.78	6.11	6.00	6.39	6.39	6.82
30-Jun-06	5.78	5.85	5.79	6.19	6.14	6.61	6.59	7.09
31-Jul-06	6.01	6.10	6.01	6.33	6.27	6.62	6.66	7.20
31-Aug-06	6.02	6.10	6.05	6.36	6.30	6.68	6.72	7.21
29-Sep-06	6.95	7.17	6.30	6.64	6.46	6.86	6.74	7.21
31-Oct-06	6.76	6.89	6.68	7.04	6.85	7.29	7.21	7.63
30-Nov-06	6.12	6.20	6.68	7.00	6.94	7.32	7.34	7.70
30-Dec-06	14.47	15.79	7.82	10.47	8.00	10.30	8.24	9.56
31-Jan-07	7.71	7.84	7.26	8.21	7.64	8.55	8.57	9.19
28-Feb-07	6.01	6.11	7.74	8.51	8.53	9.47	9.53	10.22
30-Mar-07	58.15	68.27	9.03	12.62	9.43	11.66	9.71	11.65
30-Apr-07	9.03	9.34	8.55	9.62	9.22	10.42	10.05	11.12
31-May-07	0.89	1.16	5.74	6.69	7.34	8.27	8.86	9.72
29-Jun-07	8.66	8.96	7.33	8.13	7.44	8.49	8.69	9.59
30-Jun-07	2.23	3.18	6.80	7.78	6.97	8.15	8.39	9.31
31-Jul-07	0.13	0.19	3.36	4.56	5.45	6.22	6.45	7.54
31-Aug-07	6.05	6.15	6.15	6.85	6.70	7.51	7.61	8.47
28-Sep-07	8.74	9.08	6.22	6.83	7.07	7.85	7.78	8.45
31-Oct-07	6.08	6.15	5.83	6.72	6.29	7.13	7.24	7.90
30-Nov-07	7.66	7.75	6.57	7.56	6.83	7.88	7.52	8.50
31-Dec-07	6.87	7.02	7.27	7.86	7.58	8.07	8.01	8.56
31-Jan-08	6.82	6.93	6.30	7.34	6.65	7.78	7.51	8.54
29-Feb-08	7.12	7.26	7.08	8.25	7.61	8.75	8.59	9.61
31-Mar-08	8.96	9.16	7.49	9.17	8.00	9.46	8.74	9.82
30-Apr-08	7.79	8.77	6.28	7.41	6.73	7.87	7.79	8.77
31-May-08	7.53	7.93	6.51	7.53	6.88	8.07	7.89	8.87
30-Jun-08	8.69	8.77	8.59	9.13	8.90	9.56	9.39	9.94

Source : NSE

Derivatives Market

Introduction

Growth of the markets often gives rise to demand for new, different instruments to enable the investors to diversify and control the different risks in the capital markets. Demand for derivative instruments, like options and futures contracts, was one such demand. A market for derivative products emerged as a result of the willingness of risk-averse economic agents to guard against uncertainties arising out of fluctuations in asset prices. Derivatives are meant to facilitate hedging of price risk of inventory holding or a financial/commercial transaction over a certain period. Derivative products initially emerged as hedging devices against fluctuations in commodity prices and commodity-linked derivatives were the sole forms of such products for a long time. The financial derivatives gained prominence in post-1970 period due to growing instability in the financial markets and became very popular, accounting for about two-thirds of total transactions in derivative products. In the recent years, the market for financial derivatives has grown both in terms of variety of instruments available, their complexity and turnover.

Derivatives trading commended in June 2000, after SEBI approval, on the NSE and BSE. Trading first commenced in Index futures contracts, followed by index options in June 2001, options in individual stocks in July 2001 and futures in single stock derivatives in November 2000.Thus, in 2000 and 2001, the Indian equity market reached the logical conclusion of the reforms program which began in 1994.

India's experience with the launch of equity derivatives market has been extremely positive. The derivatives turnover on the NSE has surpassed the equity market turnover. The turnover of derivatives on the NSE increased from Rs. 23,654 million (US $ 207 million) in 2000-01 to Rs. 130,904,779 million (US $ 3,275,076 million) in 2007-08. India is one of the most successful developing countries in terms of a vibrant market for exchange-traded derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery.

The factors that have been driving the growth of financial derivatives worldwide, as also in India are increased volatility in asset prices in financial markets; increased integration of national financial markets with international markets; development of more sophisticated risk management tools, providing economic agents a wider choice of risk management strategies and innovations in the derivatives markets, which optimally combine the risks and returns over a large number of financial assets.

Table 7-1 : Benchmark Indices Contracts & Volume in futures & Options Segment of NSE for the fiscal 2007-08 and the quarter (April 2008- June 2008)

Indices	No of Contracts	Traded Value (Rs. Mn.)	Traded Value (US $ Mn.)	Percent-age of Contracts to total contracts	No of Contracts	Traded Value (Rs. Mn.)	Traded Value (US $ Mn.)	Percentage of Contracts to total contracts
Index Futures								
	2007-08				**April 2008-June 2008**			
NIFTY	152,838,395	37,508,314.90	938,411.68	72.11	37,764,776.00	8,900,319.60	207,225.14	57.94
MINIFTY	2,070,453	212,484.80	5,316.11	0.98	2,936,717.00	277,386.40	6,458.36	4.51
BANKNIFTY	1,217,536	375,130.30	9,385.30	0.57	423,192.00	70,150.20	1,633.30	0.65
CNXIT	211,363	50,441.60	1,261.99	0.10	35,181.00	7,560.90	176.04	0.05
JUNIOR	228,888	53,329.70	1,334.24	0.11	5,189.00	1,104.70	25.72	0.01
NFTYMCAP50	11,790	2,725.40	68.19	0.01	1,335.00	259.50	6.04	0.002
CNX100	20,154	4,246.10	106.23	0.01	79.00	18.20	0.42	0.0001
Index Options								
NIFTY	55,360,252	13,620,323.80	340,763.67	26.12	23,989,447.00	5,710,611.00	132,959.51	36.81
MINIFTY	4,679	551.10	13.79	0.00	16,963.00	2,568.80	59.81	0.03
BANKNIFTY	41	10.30	0.26	0.00	2,214.00	220.00	5.12	0.003
CNXIT	55	11.50	0.29	0.00	3.00	0.60	0.01	0.00
JUNIOR	1,001	209.20	5.23	0.00	-	-	-	-
NFTYMCAP50	6	1.90	0.05	0.00	-	-	-	-
CNX100	4	0.90	0.02	0.00	-	-	-	-
Total of all Indices	**211,964,617**	**51,827,782**	**1,296,667**	**100.00**	**65,175,096.00**	**14,970,199.90**	**348,549.47**	100.00
Total of Nifty Index Futures and Options	208,198,647	51,128,639	1,279,175	98.22	61,754,223.00	14,610,930.60	340,184.65	94.75

Global Derivatives Markets [1]

As per the *FIA Annual Volume Survey,* more than 15 billion futures and options contracts were traded during 2007 on the 54 exchanges that report to the FIA, a remarkable increase of 28% from the previous year. Looking back at the last three years, the growth rates were 19% in 2006, 12% in 2005, and 9% in 2004. The last time this much growth was seen was in 2003 when volumes increased by 31% from 6.2 billion to 8.1 billion (Table 7-2).

[1] Data source is Futures Industry Magazine, March/April 2008

Table 7-2: Year Wise Trend of Derivatives Trading (in terms of contracts)

(in millions)

Year	US Exchanges	Non-US Exchanges	Global
1992	550.39	387.83	938.22
1993	523.36	538.36	1,061.72
1994	807.87	779.83	1,587.70
1995	776.64	905.99	1,682.63
1996	793.63	975.34	1,768.97
1997	905.16	1,025.07	1,930.23
1998	1,033.20	1,142.65	2,175.81
1999	1,100.86	1,301.98	2,405.84
2000	1,313.65	1,675.80	2,989.45
2001	1,578.62	2,768.70	4,347.32
2002	1,844.90	4,372.38	6,217.28
2003	2,172.52	5,990.22	8,162.54
2004	2,795.21	6,069.50	8,864.71
2005	3,525.00	6,448.67	9,973.67
2006	4,616.73	7,245.48	11,862.21
2007	6,137.20	9,049.47	15,186.67

Source : FI Futures Industry, March/April 2008. The magazine of the FIA

The upward trend in growth in derivatives segment is being witnessed across all the segments of the exchange traded derivative contracts. However, Equity futures and options, both index and single stock, are the most powerful drivers, together accounting for 68.36% of increase in volumes of exchange traded derivative contracts in 2007 over the 2006 levels. The trading in foreign currency derivatives grew at 39.43% in 2007 followed by Agricultural derivatives which registered growth of 32.02% (Table 7-3).

Table 7-3: Global Exchange traded derivatives volume by category

(in millions)

GLOBAL	2007	2006	(%) Change
Equity Indices	5,616.82	4,453.95	26.1
Interest Rate	3,740.88	3,193.44	17.14
Individual Equities	4,091.92	2,876.49	42.25
Energies	496.41	385.97	28.61
Agricultural	645.64	489.03	32.02
Metals	256.07	218.68	17.09
Currency	334.71	240.05	39.43
Others	4.23	4.36	-2.98
Total Volume	15,186.67	11,862.21	28.03

Source : FI Futures Industry, March/April 2008. The magazine of the FIA

The details for the top 20 contracts for the year 2007 are presented in (Table 7-4). With 2.64 billion contracts, Kospi 200 options contract was the most traded in 2007 followed by Euro-Dollar Futures of CME having traded 621.47 million contracts. E-mini S&P 500 Futures, CME contract saw an increase of 61% in its traded volumes and moved to 3rd position in the list of top traded contracts in 2007 from 6th position in 2006. Another contract which witnessed a sharp increase in its volume in 2007 was the DJ Euro Stoxx 50 Futures contract leading to its positions' improvement from 8th to 6th in 2007.

Table 7-4: Top 20 Contracts for the year 2007

(in millions - net of individual equities)

Rank	Contract	2007	2006	Volume Change	% Change
1	Kospi 200 Options, Korea Exchange	2,642.68	2,414.42	228.26	9.45
2	Eurodollar Futures, CME	621.47	502.08	119.39	23.78
3	E-mini S&P 500 Index Futures, CME	415.35	257.93	157.42	61.03
4	10-Year T-Note Futures, CME	349.23	255.57	93.66	36.65
5	Euro-Bund Futures, Eurex	338.32	319.89	18.43	5.76
6	DJ Euro Stoxx 50 Futures, Eurex	327.03	213.51	113.52	53.17
7	Eurodollar Options on Futures , CME	313.03	268.96	44.07	16.39
8	DJ Euro Stoxx 50 Options, Eurex	251.44	150.05	101.39	67.57
9	1-Day Interbank Deposit Futures, BM&F	221.63	161.65	59.98	37.10
10	3 month Euribor Futures, Liffe	221.41	202.09	19.32	9.56
11	TIIE 28-Day Interbank Rate Futures, Mexder TIIE 28 Futures, Eurex	220.61	264.16	-43.55	-16.49
12	Powershares QQQ ETF Options *	185.81	112.07	73.74	65.80
13	Euro-Schatz Futures, Eurex	181.10	165.32	15.78	9.55
14	Euro-Bobl Futures, Eurex	170.91	167.31	3.60	2.15
15	5 Year T-Note Futures, CBOT CME	166.21	124.87	41.34	33.11
16	S&P 500 Index Options, CBOE	158.08	104.31	53.77	51.55
17	iShare Russell 2000 ETF Options *	154.06	80.95	73.11	90.32
18	SPDR S&P 500 ETF Options *	141.61	64.91	76.70	118.16
19	**S&P CNX Nifty Futures, NSE India**	**138.79**	**70.29**	**68.51**	**97.47**
20	Light Sweet Crude Oil Futures, CME Nymex	121.53	71.05	50.48	71.05

Source: FI Futures Industry, March/April 2008. The monthly magazine of the FIA.
* Traded as multiple U.S options exchanges

In terms of trading volumes in single stock futures, while the NSE was ranked first (1st) in terms on number of contracts traded in 2006, it has shifted to second position as the Johannesburg Stock Exchange (JSE) overtook NSE with a 265.49 million contracts traded in 2007 at the JSE as against 179.33 contracts on the NSE (Table 7-5).

Table 7-5: Futures on Individual Equities (Stock Futures)

(Number of Contracts- in million)

Exchange	2007	2006	% Change
JSE South Africa	265.49	69.67	281.06
National Stock Exchange of India	179.32	100.29	78.81
Eurex	52.46	35.59	47.41
Liffe	75.27	29.52	155.00
MEFF	21.29	21.23	0.30

Source: WFE 2007 Annual Report and Statistics.

However, NSE faired very well in 2007 in terms of traded volumes in futures and options taken together, improving its worldwide ranking from 15th in 2006 to 9th in 2007. The traded volumes in the derivatives segment of the NSE saw an increase of 95% in 2007 over the figure in 2006 (Table 7-6).

Table 7-6: Global Futures and Options Volume

(in million)

Rank		Exchange	Volume		%change
2007	2006		2007	2006	
1	#	CME Group*	2804.99	2209.15	26.97
2	1	Korea Exchange	2709.14	2474.59	9.48
3	2	Eurex	1899.86	1526.75	24.44
4	5	Euronext.liffe	949.03	730.30	29.95
5	6	Chicago Board Options Exchange	945.61	675.21	40.05
6	7	International Securities Exchange	804.35	591.96	35.88
7	9	Bolsa de Mercadorias & Futuros	426.36	283.57	50.35
8	12	Philadelphia Stock Exchange	407.97	273.09	49.39
9	15	**National Stock Exchnage of India**	**379.87**	**194.49**	95.32
10	8	Sao Paul Stock Exchange (Bovespa)	367.69	287.52	27.88
11	10	New York Mercantile Exchange	353.39	276.15	27.97
12	14	NYSE Arca Options	335.84	196.59	70.83
13	19	JSE South Africa	329.64	105.05	213.79
14	13	American Stock Exchange	240.38	197.05	21.99
15	11	Mexican Derivatives Exchange	228.97	275.22	-16.80
16	#	Intercontinental Exchange**	195.71	140.28	39.51
17	17	Dalian Commodity Exchange	185.61	120.35	54.23
18	16	OMX Group	142.51	123.17	15.70
19	20	Boston Options Exchange	129.79	94.39	37.50
20	39	Australian Stock Exchange	116.09	100.57	15.43
21	18	Taiwan Futures Exchange	115.15	114.60	0.48
22	26	Osaka Securities Exchange	108.92	60.65	79.59
23	23	Tel-Aviv Stock Exchange	104.37	83.05	25.67
24	30	Zhengzhou Commodity Exchange	93.05	46.29	101.02
25	22	London Metal Exchange	92.91	86.94	6.87
26	33	Hong Kong Exchanges & Clearing	87.99	42.91	105.06
27	27	Shanghai Futures Exchange	85.56	58.11	47.24
28	31	**Multi Commodity Exchange of India**	**68.95**	**45.64**	51.07
29	57	Mercadi Esoanol de Opciones y Futuros Financieros	51.86	46.97	10.41
30	25	The Tokyo Commodity Exchange	47.07	63.69	-26.10
31	35	Singapore Exchange	44.21	36.59	20.83
32	34	Bourse de Montreal	42.74	40.54	5.43
33	36	Tokyo Financial Exchange	42.61	35.49	20.06
34	37	Italian Derivatives Market	37.12	31.61	17.43
35	28	**National Commodity & Derivatives Exchange (India)**	**34.95**	**53.27**	-34.39
36	38	Tokyo Stock Exchange	33.09	29.23	13.21
37	41	Mercado a Termino de Roasario	25.42	18.21	39.59
38	46	Turkish Derivatives Exchange	24.87	6.85	263.07
39	#	Tokyo Grain Exchange	19.67	19.14	2.77
40	42	Budapest Stock Exchange	18.83	14.68	28.27
41	43	Oslo stock Exchange	13.97	13.16	6.16
42	47	Warsaw Stock Exchange	9.34	6.71	39.20
43	45	One Chicago	8.11	7.92	2.40
44	44	Central Japan Commodity Exchanges	6.55	9.64	-32.05
45	49	Malaysia Derivatives Exchange Berhad	6.20	4.16	49.04
46	48	Kansas City Board of Trade	4.67	5.29	-11.72
47	52	Minneapolis Grain Exchange	1.83	1.66	10.24
48	51	New Zealand Futures Exchange	1.65	1.83	-9.84
49	#	Wiener Boerse	1.32	1.31	0.76
50	#	Chicago Climate Exchange	0.28	0.03	865.52
51	#	Dubai Mercantile Exchange	0.22	NA	NA
52	57	Mercado a Termino de Buenos Aires	0.18	0.15	20.00
53	56	Kansai Commodities Exchange	0.16	0.32	-50.00
54	58	US Futures Exchange (Eurex US)	0.008	0.14	-94.29

*CME Group includes CME Exchange and Chicago Board of Trade, which were combined into a single company in 2007
** Includes ICE Futures Europe, ICE Futures US and ICE Futures Canada
# new enrant in 2007

Derivatives market survey by WFE-May 2008

The World Federation of Exchanges carried out an annual survey of derivatives markets for the International Options Markets Association (IOMA) derivatives exchanges, covering the markets in its member countries. The survey completed in May 2008 covered derivative markets in 52 exchanges.

The main findings of the 2007 IOMA survey are listed below:

1. 2007 was again a brilliant year for most segments of derivatives trading.

2007		Stock	Stock index	STIR	LTIR	Currency
Number of contracts traded (millions)	*Options*	3,729	3,743	472	188	46
	Futures	626	1,698	1,546	1,530	287
Growth rate of contracts traded	*Options*	35 %	18 %	22 %	6 %	91 %
	Futures	118 %	45 %	15 %	20 %	36 %

Note: STIR: short term interest rate products
LTIR: long term interest rate products

The growth of equity products, which account for 64 % of global derivative markets for the number of traded contracts, accelerated in 2007 for all types of products.

- Stock options and index options are increasingly traded around the world. The growth of stock options trading volume more than doubled in 2007 and caught up with stock index options. Meanwhile, the latter are the type of derivatives products listed on the greatest (and increasing) number of exchanges. Volumes in the Korean KOSPI 200 contract are huge (2.4 billion contracts traded) and increased again in 2007, although less rapidly than the rest of the market.
- Volumes of stock futures more than doubled again in 2007. The most successful exchanges in this segment challenge traditional markets like the JSE South Africa and the National Stock Exchange of India, which are ranked first in terms, respectively, of number of contracts traded and notional value of trading. Regarding index futures, growth has accelerated continuously : + 17 % in 2004, + 32 % in 2006, + 45 % in 2007.
- Short term interest rate products were the only segment of the market that showed lower rates of growth, but the figures were still very impressive. The concentration of the market became more pronounced, with only 16 exchanges listing options or futures, and the two leaders, CME Group and Liffe accounting for 71 % of global trading.
- Long term interest rate products showed a contrasting picture, where the growth of options was the smallest of all segments, while the growth of futures accelerated to 20 %. The concentration of the market is even stronger than on short term products : CBOT (now part of CME Group) and Eurex account for 92 % of global trading volume.
- Currency derivatives are still a relatively small segment of organized markets. However, the growth rate, which is similar to 2006 (42 %), is higher than that of most other products.

2. The growth of derivatives market signals a general trend in the global economy, where financial markets are more and more active all around the world. Again in 2007, cash markets grew even more rapidly than derivatives markets : the number of trades in equity shares increased 73 % in 2007, though the growth in value of cash equities traded was lower than that.

3. The concentration of derivatives business has not changed much in the past three years. Trading of equity products and commodity futures are still less concentrated in the top five exchanges than interest rate and currency products. However, the trend towards more concentration of single stocks derivatives trading on the biggest exchanges

continued in 2007, while the concentration of index option trading decreased slightly. Also, concentration can be analysed by the share of the 5 and 10 most active members in the total trading volume of the exchanges. Thus, Wiener Börse is the most concentrated market: nearly 100 % of transactions are realised by the 5 biggest members. European markets are more concentrated than their counterparts in other regions, except for the Italian Stock Exchange. On the opposite position, the 5 most active members on the National Stock Exchange of India represents less than 15 % of the total trading volume of the market.

4. The ratio of open positions to turnover is still higher on stock options than on other products, but it has decreased over time, and the trend accelerated in 2007 ; and although retail trading has been more important for that class of products than others, the velocity of trading has been rising.

Policy Developments

I. Comprehensive Guidelines on Derivatives trading by banks

As indicated by the RBI in its Mid-term Review of Annual Policy for year 2006-07, an Internal Group was constituted by the Bank to review the existing guidelines on derivatives and formulate comprehensive guidelines on derivatives by banks. Based on based on the recommendations of this Group and a public consultation process, comprehensive guidelines on derivatives trading by banks were released by the RBI in April 2007.

The main contents of these guidelines are:

a. Broad principles for undertaking derivative transactions

The guidelines lay down that the major requirements for undertaking any derivative transaction from the regulatory perspective would include:

- Market-makers may undertake a transaction in any derivative structured product (a combination of permitted cash and generic derivative instruments) as long as it is a combination of two or more of the generic instruments permitted by RBI and does not contain any derivatives as underlying;
- Market-makers should be in a position to arrive at the fair value of all derivative instruments, including structured products on the basis of the following approach :
  - Marking the product to market, if a liquid market in the product exists.
  - In the case of structured products, marking the constituent generic instruments to market.
  - If (a) and (b) are not feasible, marking the product to model, provided:
    - All the model inputs are observable market variables.
    - Full particulars of the model, including the quantitative algorithm should be documented.
- All references to Primary Dealers in these guidelines apply to stand-alone PDs, not Bank- PDs.
- All permitted derivative transactions, including roll over, restructuring and novation shall be contracted only at prevailing market rates.
- All risks arising from derivatives exposures should be analysed and documented, both at transaction level and portfolio level.
- The management of derivatives activities should be an integral part of the overall risk management policy and mechanism. It is desirable that the board of directors and senior management understand the risks inherent in the derivatives activities being undertaken.
- Market-makers should have a 'Suitability and Appropriateness Policy' vis-à-vis users in respect of the products offered, on the lines indicated in these guidelines.
- Market-makers may, where they consider necessary, maintain cash margin/liquid collateral in respect of derivative transactions undertaken by users on mark-to-market basis.

b. Permissible derivative instruments

The RBI permitted banks to trade in the following types of derivative instruments, subject to certain conditions:

- Rupee interest rate derivatives – Interest Rate Swap (IRS), Forward Rate Agreement (FRA), and Interest Rate Futures (IRF).
- Foreign Currency derivatives – Foreign Currency Forward, Currency Swap and Currency Option.

II. Permission for acceptance of Foreign Sovereign Securities as collateral from Foreign Institutional Investors (FIIs) for Exchange Traded Derivative Transactions

For Exchange Traded Derivative transactions, FIIs were required to deposit the collateral with the clearing members, in the form of cash. Under the existing guidelines for clearing members, as per SEBI Circular dated July 28, 1999, for collateral purposes, at least 50% of the liquid assets, is required to be in the form of cash or cash equivalents, and the rest can be in the form of non-cash components. The Reserve Bank of India (RBI) vide A. P. (DIR Series) Circular no. 2 dated July 19, 2007 permitted clearing corporations and clearing members –

a. to open and maintain demat accounts with foreign depositories and to acquire, hold, pledge and transfer the foreign sovereign securities, offered as collateral by FIIs;

b. to remit the proceeds arising from corporate action, if any, on such foreign sovereign securities; and

c. to liquidate such foreign sovereign securities if the need arises.

Accordingly, SEBI issued a circular on September 11, 2007 permitting clearing members to accept foreign sovereign securities with 'AAA' rating, (hereinafter referred to as "sovereign securities") as collateral from FII client with the following necessary safeguards:

i. Before accepting sovereign securities as collateral from FII, the clearing member would be required to enter into a written agreement with the FII and also with the clearing corporation, containing, *inter alia*, the following terms:

   a. In the event of any dispute regarding liquidation or return of the sovereign securities tendered as collateral, or any other incidental matter, the courts in India will have jurisdiction to decide such disputes. Alternatively, the agreement may contain an arbitration clause.

   b. The agreement shall also contain the right of the clearing corporation as well as the clearing member to liquidate the sovereign securities tendered as collateral, in the event of default by clearing member or FII, as the case may be.

ii. The clearing member shall take due care to ensure that the sovereign securities tendered as collateral are available for liquidation in the event of insolvency of the FII or any intermediary or any other person located overseas through whom the securities are held.

iii. The clearing corporation shall also take due care to ensure that sovereign securities tendered as collateral are available for liquidation in the event of insolvency of the clearing member or any intermediary or other person located overseas through whom the securities are held.

iv. The clearing corporation shall take adequate care to ensure that the sovereign securities accepted by it as margin are tendered under a mechanism which does not unduly hinder timely liquidation in the event of default by the clearing member.

SEBI further provided that:

- The clearing corporation shall value the collateral tendered by applying due haircuts. The haircut may either be a fixed percentage or VaR based. A higher haircut may be considered to cover the expected time frame for liquidation. A market determined price as obtained from an internationally recognized data vendor shall be considered for valuation. The prices shall be converted into rupee terms on a daily basis. The rupee value so used for conversion shall be the "RBI Reference rate". The RBI reference rate shall be disclosed by the clearing corporation to the clearing members, so as to enable them to report the value of the margins collected from FIIs.

- The sovereign securities tendered as collateral shall be treated as part of the cash component of the liquid assets of the clearing member, and shall be subject to the condition that the value of the sovereign securities shall not be more than 10% of the total value of the cash component of the liquid assets of the clearing member.
- The existing procedure for acceptance and release of collateral tendered by domestic investors in the case of domestic securities shall be adopted *mutatis mutandis* for the sovereign securities tendered by FII, except to the extent specifically provided otherwise.

III. Introduction of mini derivative (Futures & Options) contract on Index (Sensex & Nifty)

Pursuant to the recommendation of the SEBI appointed Derivatives Market Review Committee (DMRC) the SEBI Board approved the introduction of mini derivatives contract on Index (Sensex and Nifty). Accordingly, SEBI issued a circular on December 27, 2007, providing as follows:

- To begin with, the mini derivative contract on Index (Sensex and Nifty) would have a minimum contract size of Rs. 1 lakh at the time of its introduction in the market.
- The existing risk containment and other measures applicable for existing exchange traded equity Index derivative contracts would also be extended to the mini derivative contract on Index.

IV. Introduction of Volatility Index

The SEBI appointed Derivatives Market Review Committee (DMRC) had recommended the introduction of Volatility Index and Futures and Options on this Index. Accordingly, SEBI, in January, 2008 permitted Exchanges to construct a Volatility Index and disseminate the same. Volatility Index is a measure of market's expectation of volatility over the near term. Volatility is often described as the "rate and magnitude of changes in prices" is often referred to as risk. Volatility Index is a measure, of the amount by which an underlying Index is expected to fluctuate, in the near term, (calculated as annualised volatility, denoted in percentage e.g. 20%) based on the order book of the underlying index options.

The NSE has accordingly designed the first India VIX volatility index and started dessminating the same with effect from April 08, 2008. This index is based on the Nifty 50 Index Option prices. From the best bid-ask prices of Nifty 50 Options contracts, a volatility figure (%) is being calculated indicating the expected market volatility over the next 30 calendar days.

V. Long Term Options contracts on S&P CNX NIFTY

The SEBI Derivatives Market Review Committee (DMRC) recommended the introduction of new derivative products in the Indian market, with option contracts on indices and stocks with life/tenure of up to 5 years (60 months) being one of them. Accordingly SEBI approved introduction of Long Term Options contracts on S&P CNX NIFTY for trading in F&O segment. The cycle for Long Term Options contracts on S&P CNX NIFTY would be as

The 3 serial month contracts would continue to exist.

The 3 quarterly months of the cycle March / June / September / December would be available.

After these, 5 following semi-annual months of the cycle June / December would be available, so that at any point in time there would be options contracts with atleast 3 year tenure available.

Revised contract specifications for Nifty Options is given in the table 1 below.

Table 1

Parameter	Existing parameters	Changed parameter
Underlying	S&P CNX Nifty	No Change
Instrument	OPTIDX	No Change
Symbol	NIFTY	No Change
Expiry Date	DD-MMM-YYYY	No Change
Option Type	CE / PE	No Change
Trading Cycle	3 month trading cycle - the near month (one), the next month (two) and the far month (three)	3 near month expiries, next three quarter expiries (March, June, Sept & Dec cycle) and next 5 half yearly expiries (June, Dec cycle)
Expiry Day	Last Thursday of the expiry month. If the last Thursday is a trading holiday, then the expiry day is the previous trading day.	No Change
No of Strikes	Dependent on index level	Dependent on index level and expiry period Given at in Table 2
Strike Price Intervals	Dependent on index level	Dependent on index level and expiry period Given at in Table 2
Permitted Lot Size	50	No Change
Price Steps	Rs.0.05	No Change
Operating Range	Upper Operating Range + 99% of base price or Rs.20, whichever is higher; Lower Operating Range Rs.0.05	No Change

Table 2 Revised number of strikes for Nifty

Index Level	First, second and third month expiries	3 quarterly expiries	5 half yearly expiries
upto 2000	4-1-4	6-1-6	4-1-4
>2000 upto 4000	4-1-4	6-1-6	4-1-4
>4000 upto 6000	5-1-5	8-1-8	5-1-5
>6000	6-1-6	8-1-8	6-1-6

Revised strike price intervals for NIFTY

Index Level	First, second and third month expiries	3 quarterly expiries	5 half yearly expiries
upto 2000	25	25	50
>2000 upto 4000	50	50	100
>4000 upto 6000	50	50	100
>6000	50	50	100

VI Introduction of Futures and Options contracts on S&P CNX Defty Index

Trading in Futures and options on CNX Defty index was introduced w.e.f. 10th December 2008.The contraction specifications are mentioned in the table below.

Underlying Index	S&P CNX Defty
Security descriptor	Futures : FUTIDX DEFTY Options : OPTIDX DEFTY
Price steps	Re. 0.05
Permitted lot size	150
Price Bands	No Price bands
Trading Cycle	Maximum of three months – the near month, the next month and the far month. New contract shall be introduced on the next trading day following the expiry of near month contract
Expiry day	Last Thursday of the expiry month or the previous trading day if the last Thursday is a trading holiday
Settlement basis	Cash settlement
Style of option	European

Market Design

Only two exchanges in India have been permitted to trade in derivatives contracts, the NSE and the BSE. NSE's contribution to the total turnover in the market is nearly 99%. Hence, the market design enumerated in this section is the derivative segment of NSE (hereafter referred to as the F&O segment). The different aspects of market design for F&O segment of the exchanges can be summarized as follows:

Trading Mechanism	• NEAT-F&O system: a fully automated screen-based, anonymous order driven trading system for derivatives on a nationwide basis. • There are four entities in the trading system: 1. *Trading members* who can trade either on their own account or on behalf of their clients including participants. 2. *Clearing members* who are members of NSCCL and carry out risk management activities and confirmation/inquiry of trades through the trading system. These clearing members are also trading members and clear trades for themselves and/or others. 3. *Professional clearing members* are clearing members who are not trading members. Typically, banks and custodians become PCMs and clear and settle for their trading members. *Participants* who are client of trading members like financial institutions. These clients may trade through multiple trading members, but settle their trades through a single clearing member only.
Membership	The members are admitted by NSE for its F&O segment in accordance with the rules and regulations of the Exchange and the norms specified by the SEBI. The eligibility criteria for membership on F&O segment has been mentioned in Chapter 4 Secondary Market – Trading. At the end of June 2008, there were 983members in the F&O segment.
Contracts available	• Index futures and index options contracts on NSE based on Nifty 50 Index, CNX IT Index, Bank Nifty Index, CNX Nifty Junior, CNX 100, Nifty Midcap 50 and S&P CNX Defty. • Stock Futures and options, based on 265 individual securities. • Interest rate Futures rate contracts on Notional 91 day t-bill and Notional 10 year bond (6% coupon bearing and zero coupon bond).

<table>
<tr><td>Charges</td><td>Transaction charges payable to the exchange by the trading member for the trades executed by him on the F&O segment are fixed at Rs. 2 per lakh of turnover (0.002%) subject to a minimum of Rs. 1,00,000 per year. However for the transactions in the options sub-segment the transaction charges are levied on the premium value at the rate of 0.05% (each side) instead of on the strike price as levied earlier.
Derivatives on S&P CNX Defty both futures and options was started with effect from December 10, 2008. Transaction charges in respect of all trades done from December 10, 2008 till March 31, 2009 in the futures and options contracts of S&P CNX Defty have been waived</td></tr>
<tr><td></td><td>Transaction charges payable to the exchange by the trading member for the trades executed by him on the F&O segment are fixed at Rs. 2 per lakh of turnover (0.002%) subject to a minimum of Rs. 1,00,000 per year. However for the transactions in the options sub-segment the transaction charges are levied on the premium value at the rate of 0.05% (each side) instead of on the strike price as levied earlier.
Derivatives on S&P CNX Defty both futures and options was started with effect from December 10, 2008. Transaction charges in respect of all trades done from December 10, 2008 till March 31, 2009 in the futures and options contracts of S&P CNX Defty have been waived</td></tr>
<tr><td></td><td>Securities Transaction Tax
The trading members are also required to pay securities transaction tax (STT) on non-delivery transactions at the rate of 0.017 (payable by the seller) for derivatives w. e. f June 1, 2008.
<table>
<tr><th>Taxable securities transaction</th><th>Rate (%)</th><th>Taxable Value</th><th>Payable by</th></tr>
<tr><td>Sale of an option in securities</td><td>0.017</td><td>Option premium</td><td>Seller</td></tr>
<tr><td>Sale of an option in securities, where option is exercised</td><td>0.125</td><td>Settlement Price</td><td>Purchaser</td></tr>
<tr><td>Sale of a futures in securities</td><td>0.017</td><td>Sale Price</td><td>Seller</td></tr>
</table>
Value of taxable securities transaction relating to an “option in securities” will be the option premium, in case of sale of an option in securities.
Value of taxable securities transaction relating to an “option in securities” will be the settlement price, in case of sale of an option in securities, where option is exercised.</td></tr>
<tr><td></td><td>Contribution to Investor Protection Fund
The trading members contribute to Investor Protection Fund of F&O segment at the rate of Re.1/- per Rs. 100 crore of the traded value (each side) in case of Futures segment and Rs.1/- per Rs. 100 crore of the premium amount (each side) in case of Options segment.</td></tr>
<tr><td>Clearing and Settlement</td><td>• National Securities Clearing Corporation Limited (NSCCL) undertakes clearing and settlement of all trades executed on the futures and options (F&O) segment of the NSE.
• Index as well as stock options and futures are settled in cash.</td></tr>
</table>

Risk Management Framework

NSCCL has developed a comprehensive risk containment mechanism for the F&O segment. The salient features of risk containment mechanism on the F&O segment are:

a. The financial soundness of the members is the key to risk management. Therefore, the requirements for membership in terms of capital adequacy (net worth, security deposits) are quite stringent.

b. NSCCL charges an upfront initial margin for all the open positions of a Clearing Member. It specifies the initial margin requirements for each futures/options contract on a daily basis. It also follows Value- at- Risk (VaR) based margining computed through SPAN. The CM in turn collects the initial margin from the Trading Members (TMs) and their respective clients.

c. The open positions of the members are marked to market based on contract settlement price for each contract *at the end of the day*. The difference is settled in cash on a T+1 basis.

d. NSCCL's on-line position monitoring system monitors a CM's open position on a real-time basis. Limits are set for each CM based on his effective deposits. The on-line position monitoring system generates alert messages whenever a CM reaches 70 %, 80 %, 90 % and a disablement message at 100 % of the limit. NSCCL monitors the CMs for Initial Margin violation, Exposure margin violation, while TMs are monitored for Initial Margin violation and position limit violation.

e. CMs are provided with a trading terminal for the purpose of monitoring the open positions of all the TMs clearing and settling through him. A CM may set exposure limits for the TM clearing and settling through him. NSCCL assists the CM to monitor the intra-day limits set up by a CM and whenever a TM exceed the limits, it stops that particular TM from further trading.

f. A member is alerted of his position to enable him to adjust his exposure or bring in additional capital. *Margin violations* result in disablement of trading facility for all TMs of a CM in case of a violation by the CM.

g. A separate settlement guarantee fund for this segment has been created out of the base capital of members.

The most critical component of risk containment mechanism for F&O segment is the margining system and on-line position monitoring. The actual position monitoring and margining is carried out on–line through Parallel Risk Management System (PRISM). PRISM uses SPAN®[2] (Standard Portfolio Analysis of Risk). SPAN system is for the purpose of computation of on-line margins, based on the parameters defined by SEBI.

Risk Containment Measures

A. Eligibility Criteria for stock selection

The stock selection criteria for derivatives trading in India ensure that stock is large in terms of market capitalization, turnover and has sufficient liquidity in the underlying market and there are no adverse issues related to market manipulation.

Eligibility Criteria for selection of stocks and indices for futures and options contracts

The following criteria was adopted by the Exchange w.e.f September 22, 2006, for selecting stocks and indices on which Futures & Options contracts are to be introduced.

1. Eligibility criteria of stocks

- The stock are to be chosen from amongst the top 500 stocks in terms of average daily market capitalisation and average daily traded value in the previous six months on a rolling basis.
- The stock's median quarter-sigma order size over the last six months should be not less than Rs. 0.10 million (Rs. 1 lac). For this purpose, a stock's quarter-sigma order size would mean the order size (in value terms) required to cause a change in the stock price equal to one-quarter of a standard deviation.
- The market wide position limit in the stock should not be less than Rs. 500 million (Rs. 50 crores). The market wide position limit (number of shares) is be valued taking the closing prices of stocks in the underlying cash market on the date of expiry of contract in the month. The market wide position limit of open position (in terms of the number of underlying stock) on futures and option contracts on a particular underlying stock is :
    - 20% of the number of shares held by non-promoters in the relevant underlying security i.e. free-float holding.

[2] SPAN ® is a registered trademark of the Chicago Mercantile (CME) used here under license.

- If an existing security fails to meet the eligibility criteria for three months consecutively, then no fresh month contract can be issued on that security.

  However, the existing unexpired contracts may be permitted to trade till expiry and new strikes may also be introduced in the existing contract months.

  Selection criteria for unlisted companies

  For unlisted companies coming out with initial public offering, if the net public offer is Rs. 500 crore or more, then the Exchange may consider introducing stock options and stock futures on such stocks at the time of its' listing in the cash market.

  Re-introduction of dropped stocks

- A stock which is dropped from derivatives trading may become eligible once again. In such instances, the stock is required to fulfill the eligibility criteria for three consecutive months to be re-introduced for derivatives trading.

  Eligibility criteria of stocks for derivatives trading especially on account of corporate restructuring

  The eligibility criteria for stocks for derivatives trading on account of corporate restructuring is as under:

  I. All the following conditions should be met in the case of shares of a company undergoing restructuring through any means, for eligibility to re-introduce derivative contracts on that company from the first day of listing of the post restructured company/(s)'s (as the case may be) stock (herein referred to as post restructured company) in the underlying market,

     a) the Futures and options contracts on the stock of the original (pre restructure) company were traded on any exchange prior to its restructuring;

     b) the pre restructured company had a market capitalisation of at least Rs.1000 crores prior to its restructuring;

     c) the post restructured company would be treated like a new stock and if it is, in the opinion of the exchange, likely to be at least one-third the size of the pre restructuring company in terms of revenues, or assets, or (where appropriate) analyst valuations; and

     d) in the opinion of the exchange, the scheme of restructuring does not suggest that the post restructured company would have any characteristic (for example extremely low free float) that would render the company ineligible for derivatives trading,

  II. If the above conditions are satisfied, then the exchange takes the following course of action in dealing with the existing derivative contracts on the pre-restructured company and introduction of fresh contracts on the post restructured company

     a) In the contract month in which the post restructured company begins to trade, the Exchange shall introduce near month, middle month and far month derivative contracts on the stock of the restructured company.

     b) In subsequent contract months, the normal rules for entry and exit of stocks in terms of eligibility requirements would apply. If these tests are not met, the exchange does not permit further derivative contracts on this stock and future month series are not be introduced.

2. Eligibility criteria of Indices

- The Exchange may consider introducing derivative contracts on an index if the stocks contribution to 80% weight age of the index are individually eligible for derivative trading. However, no single ineligible stocks in the index shall have a weightage of more than 5% in the index."

- The above criteria is applied every month, if the index fails to meet the eligibility criteria for three months consecutively, then no fresh month contract shall be issued on that index. However, the existing unexpired contracts are permitted to trade till expiry and new strikes may also be introduced in the existing contracts.

B. Margins Requirements

As pointed out above, one of the critical components of risk containment mechanism for F&O segment is the margining system. This is explained below:

- Initial margin: Margin in the F&O segment is computed by NSCCL upto client level for open positions of CMs/ TMs. These are required to be paid up-front on gross basis at individual client level for client positions and on net basis for proprietary positions. NSCCL collects initial margin for all the open positions of a CM based on the margins computed by NSE-SPAN. A CM is required to ensure collection of adequate initial margin from his TMs up-front. The TM is required to collect adequate initial margins up-front from his clients.

  Initial margin requirement is based on 99% VaR and worst case loss over a specified horizon, which depends on the time in which Mark to Market margin is collected. A portfolio based margining approach has been adopted which takes an integrated view of the risk involved in the portfolio of each individual client comprising of his positions in all derivative contracts. The initial margin requirements are based on worst scenario, loss of a portfolio of an individual client to cover 99% VaR over a one day horizon across various scenarios of price changes and volatility shifts.

- Premium Margin: In addition to Initial Margin, Premium Margin is charged at client level. This margin is required to be paid by a buyer of an option till the premium settlement is complete.
- Assignment Margin for Options on Securities: Assignment margin is levied in addition to initial margin and premium margin. It is required to be paid on assigned positions of CMs towards interim and final exercise settlement obligations for option contracts on individual securities, till such obligations are fulfilled. The margin is charged on the net exercise settlement value payable by a CM towards interim and final exercise settlement.
- Exposure margins: Clearing members are subject to exposure margins in addition to initial margins.
- Client Margins: NSCCL intimates all members of the margin liability of each of their client. Additionally members are also required to report details of margins collected from clients to NSCCL, which holds in trust client margin monies to the extent reported by the member as having been collected form their respective clients.

C. Exposure Monitoring and Position Limit

Another component of the risk management framework for derivatives segment is the stiputation of exposure limits and position limits on trading in different categories of contracts by market participants. These are summarized below:

	Index Options	Index Futures	Stock Options	Stock Futures
Exposure Limit	33.33 times the liquid net-worth of the member. Liquid net-worth is the total liquid assets deposited with the Exchange/ Clearing Corporation towards initial margin and the capital adequacy, LESS initial margin applicable to the total gross position at any given point of time of all trades cleared through the clearing member.	33.33 times the liquid net-worth of the member.	Higher of 5% or 1.5 sigma of the notional value of gross open position.	Higher of 5% or 1.5 sigma of the notional value of gross open position.

Position Limits

Client Level	Any person or persons acting in concert who together own 15% or more of the open interest on a particular underlying index is required to report this fact to the Exchange/ Clearing Corporation.		1% of free float market capitalization or 5% of open interest in all derivative contracts in the same underlying stock (in terms of number of shares) which-ever is higher
Trading Member Level	The trading member position limits in equity index option contracts is higher of Rs.500 Crore or 15% of the total open interest in the market in equity index option contracts. This limit is applicable on open positions in all option contracts on a particular underlying index.	The trading member position limits in equity index futures contracts is higher of Rs.500 Crore or 15% of the total open interest in the market in equity index futures contracts. This limit is applicable on open positions in all futures contracts on a particular underlying index.	• For stocks having applicable market-wide position limit (MWPL) of Rs. 500 crores or more, the combined futures and options position limit is 20% of applicable MWPL or Rs. 300 crores, whichever is lower and within which stock futures position cannot exceed 10% of applicable MWPL or Rs. 150 crores, whichever is lower. • For stocks having applicable MWPL less than Rs. 500 crores, the combined futures and options position limit would be 20% of applicable MWPL and futures position cannot exceed 20% of applicable MWPL or Rs. 50 crore which ever is lower.
Market wide			The market wide limit of open position (in terms of the number of underlying stock) on futures and option contracts on a particular underlying stock should be 20% of the number of shares held by non-promoters in the relevant underlying security i.e. free–float holding. This limit is applicable on all open positions in all futures and option contracts on a particular underlying stock.

Position limits for FIIs, Mutual Funds:

Index Options	Index Futures	Stock Options	Stock Futures
Rs.500 Crore or 15 % of the total open interest of the market in index options, whichever is higher. This limit is applicable on open positions in all options contracts on a particular underlying index.	Rs. 500 crores or 15 % of the total open interest of the market in index futures, whichever is higher. This limit is applicable on open positions in all futures contracts on a particular underlying index.	• For stocks having applicable market-wide position limit (MWPL) of Rs. 500 crores or more, the combined futures and options position limit is 20% of applicable MWPL or Rs. 300 crores, whichever is lower and within which stock futures position cannot exceed 10% of applicable MWPL or Rs.150 crores, whichever is lower. • For stocks having applicable market-wide position limit (MWPL) less than Rs. 500 crores, the combined futures and options position limit is 20% of applicable MWPL and futures position cannot exceed 20% of applicable MWPL or Rs. 50 crore which ever is lower.	
In addition to the above, FIIs & MFs can exposure in equity index derivatives subject to the following limits: a. Short positions in index derivatives (short futures, short calls and long puts) not exceeding (in notional value) the FII's / MF's holding of stocks. b. Long positions in index derivatives (long futures, long calls and short puts) not exceeding (in notional value) the FII's / MF's holding of cash, government securities, T-Bills and similar instruments.			

D. NSE - Span

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

Its over-riding objective is to determine the largest loss that a portfolio might reasonably be expected to suffer from one day to the next day based on 99% VaR methodology.

SPAN considers uniqueness of option portfolios. The following factors affect the value of an option:

- Underlying market price.
- Volatility (variability) of underlying instrument, and
- Time to expiration.
- Interest rate
- Strike price

As these factors change, the value of options maintained within a portfolio also changes. Thus, SPAN constructs scenarios of probable changes in underlying prices and volatilites in order to identify the largest loss a portfolio might suffer from one day to the next. It then sets the margin requirement to cover this one-day loss.

The complex calculations (e.g. the pricing of options) in SPAN are executed by NSCCL. The results of these calculations are called risk arrays. Risk arrays, and other necessary data inputs for margin calculation are provided to members daily in a file called the SPAN Risk Parameter file. Members can apply the data contained in the Risk Parameter files, to their specific portfolios of futures and options contracts, to determine their SPAN margin requirements.

Hence, members need not execute a complex option pricing calculation, which is performed by NSCCL. SPAN has the ability to estimate risk for combined futures and options portfolios, and also re-value the same under various scenarios of changing market conditions.

NSCCL generates six risk parameters file for a day taking into account price and volatilities at various time intervals and are provided on the website of the Exchange

Market Design For Currency Derivatives

Currency derivatives have been launched on the NSE in August, 2008. The market design, including the risk management framework for this new product is summarized below:

Eligibility criteria

The following entities are eligible to apply for membership subject to the regulatory norms and provisions of SEBI and as provided in the Rules, Regulations, Byelaws and Circulars of the Exchange -

1. Individuals;
2. Partnership Firms registered under the Indian Partnership Act, 1932;
3. Corporations, Companies or Institutions or subsidiaries of such Corporations, Companies or Institutions set up for providing financial services;
4. Such other person as may be permitted under the Securities Contracts (Regulation) Rules 1957

Professional Clearing Member (PCM)

The following persons are eligible to become PCMs of NSCCL for Currency Futures Derivatives provided they fulfil the prescribed criteria:

1. SEBI Registered Custodians; and
2. Banks recognised by NSEIL/NSCCL for issuance of bank guarantees

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 futures market of the recognized stock exchanges, on their own account and on behalf of their clients, subject to fulfilling the following minimum prudential requirements:

a) Minimum net worth of Rs. 500 crores.

b) Minimum CRAR of 10 per cent.

c) Net NPA should not exceed 3 per cent.

d) Made net profit 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 futures 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 futures market only as clients, subject to approval therefore from the respective regulatory Departments of the Reserve Bank.

Other applicable eligibility criteria

1. Where the applicant is a partnership firm/corporate entity, the applicant shall identify a Dominant Promoter Group as per the norms of the Exchange at the time of making the application. Any change in the shareholding of the company including that of the said Dominant Promoter Group or their shareholding interest shall be effected only with the prior permission of NSEIL/SEBI.

2. The applicant has to ensure that at any point of time they would ensure that atleast individual/one partner/one designated director/compliance officer would have a valid NCFM certification as per the requirements of the Exchange. The above norm would be a continued admittance norm for membership of the Exchange.

3. An applicant must be in a position to pay the membership and other fees, deposits etc, as applicable at the time of admission within three months of intimation to him of admission as a Trading Member or as per the time schedule specified by the Exchange.

4. The trading members and sales persons in the currency futures market must have passed a certification programme which is considered adequate by SEBI. The approved users and sales personnel of the trading member should have passed the certification programme.

5. To begin with, FIIs and NRIs would not be permitted to participate in currency futures market.

6. Strict enforcement of "Know your customer" rule is required. Therefore every client shall be registered with the member. The members are also required to make their clients aware of the risks involved in derivatives trading by issuing to the client the Risk Disclosure Document and obtain a copy of the same duly signed by the client. The members shall enter into a member constituent agreement as stipulated.

7. The Exchange may specify such standards for investor service and infrastructure with regard to any category of applicants as it may deem necessary, from time to time.

Position limits

Client Level Position Limit: The client level position limit as prescribed in the Report of the RBI-SEBI Standing Technical Committee shall be applicable where the gross open position of the client across all contracts exceeds 6% of the total open interest or 5 million USD, whichever is higher.

The client level gross open position would be computed on the basis of PAN across all members.

Trading Member Level Position Limit: The trading member position limit shall be higher of 15% of the total open interest or 25 million USD. However, the position limit for a Trading Member, which is a bank, shall be higher of 15% of the total open interest or 100 million USD.

Margins

- *Initial Margins*: Initial margin shall be payable on all open positions of Clearing Members, upto client level, and shall be payable upfront by Clearing Members in accordance with the margin computation mechanism and/ or system as may be adopted by the Clearing Corporation from time to time. Initial Margin shall include SPAN margins, futures final settlement margin and such other additional margins, that may be specified by the Clearing Corporation from time to time.
- *Calendar Spread Margins:* A currency futures position in one expiry month which is hedged by an offsetting position in a different expiry month would be treated as a calendar spread. The calendar spread margin shall be Rs. 250/- per contract for all months of spread. The benefit for a calendar spread would continue till expiry of the near month contract.
- *Minimum Margins:* The minimum margin percentage shall be 1.75% on the first day of currency futures trading and 1 % thereafter which shall be scaled up by look ahead period as may be specified by the Clearing Corporation from time to time
- *Futures Final Settlement Margin:* Futures Final Settlement Margin shall be levied at the clearing member level in respect of the final settlement amount due. The final settlement margins shall be levied from the last trading day of the contract till the completion of pay-in towards the Final Settlement.
- *Extreme Loss margins*: Clearing members shall be subject to extreme loss margins in addition to initial margins. The applicable extreme loss margin shall be 1% on the mark to market value of the gross open positions or as may be specified by the relevant authority from time to time.

Charges

In order to encourage active participation in the Currency Derivatives segment, the Exchange, has waived the transaction charges till March 31, 2009.However, every Trading Member participating in trading in the Currency Derivatives segment at any time during the waiver period shall be required to make a lump sum contribution of Rs.500/- as contribution to Investor Protection Fund.

Market Outcome

Trading Volumes

NSE's derivatives market has been witnessing a tremendous advancement in terms of volumes and array of products accessible for trading. The market has achieved a growth of 78% over the past one year where the turnover has augmented to Rs. 130,904,779 million (3,275,076 US $ million) in 2007-08 from Rs. 73,562,714 million (US $ 1,687,605 million) in 2006-07. The trading value in F&O segment of the NSE stood at Rs 108,40,643 million (US $ 252,401 million) in June, 2008. (Table 7-7).

Table 7-7: Trade Details of Derivatives Market

Month/Year	NSE			BSE			TOTAL		
	No. of Contracts Traded	Turnover (Rs. mn.)	Turnover (US$ million)	No. of Contracts Traded	Turnover (Rs.mn.)	Turnover (US$ million)	No. of Contracts Traded	Turnover (Rs. mn.)	Turnover (US$ million)
2003-04	**56,886,776**	**21,306,492**	**491,046**	**382,258**	**124,520**	**2,870**	**57,269,034**	**21,431,012**	**493,916**
2004-05	**77,017,185**	**25,470,526**	**582,183**	**531,719**	**161,120**	**3,683**	**77,548,904**	**25,631,646**	**585,866**
2005-06	**157,619,271**	**48,242,504**	**1,081,428**	**103**	**60**	**1.34**	**157,619,374**	**48,242,564**	**1,081,429**
2006-07	**216,883,573**	**73,562,714**	**1,687,605**	**1,781,670**	**590,070**	**13,537**	**218,665,243**	**74,152,784**	**1,701,142**
Apr-07	26,540,967	6,162,866	154,187	483,332	155,850	3,899	27,024,299	6,318,716	158,086
May-07	28,383,804	7,234,428	180,996	494,245	170,160	4,257	28,878,049	7,404,588	185,254
Jun-07	30,731,428	8,065,421	201,787	508,258	177,550	4,442	31,239,686	8,242,971	206,229
Jul-07	34,737,234	10,150,765	253,960	564,606	204,450	5,115	35,301,840	10,355,215	259,075
Aug-07	40,235,925	10,567,313	264,381	554,657	200,110	5,007	40,790,582	10,767,423	269,388
Sep-07	34,119,312	10,728,888	268,424	537,551	215,030	5,380	34,656,863	10,943,918	273,803
Oct-07	49,385,474	18,336,630	458,760	519,574	239,850	6,001	49,905,048	18,576,480	464,761
Nov-07	35,521,913	15,173,045	379,611	458,249	222,680	5,571	35,980,162	15,395,725	385,182
Dec-07	30,253,304	12,742,301	318,797	678,810	203,140	5,082	30,932,114	12,945,441	323,879
Jan-08	44,730,463	14,538,809	363,743	1,008,630	222,830	5,575	45,739,093	14,761,639	369,318
Feb-08	33,185,704	8,992,169	224,973	855,792	225,640	5,645	34,041,496	9,217,809	230,618
Mar-08	37,187,672	8,212,145	205,458	789,667	185,790	4,648	37,977,339	8,397,935	210,106
2007-08	**425,013,200**	**130,904,779**	**3,275,076**	**7,453,371**	**2,423,080**	**60,622**	**432,466,571**	**133,327,859**	**3,335,698**
Apr-08	33,729,824	7,664,307	178,447	166,607	40,630	946	33,896,431	7,704,937	179,393
May-08	33,840,055	7,979,084	185,776	179,060	45,580	1,061	34,019,115	8,024,664	186,837
Jun-08	51,601,129	10,840,643	252,401	59,962	13,600	317	51,661,091	10,854,243	252,718
April 08 - June 08	**119,171,008**	**26,484,033**	**616,625**	**405,629**	**99,810**	**2,324**	**119,576,637**	**26,583,843**	**618,949**

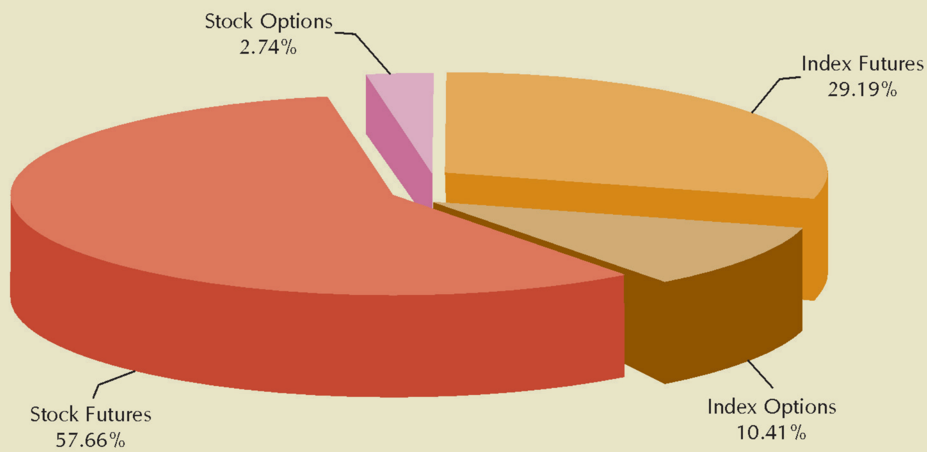
BSE's derivatives segment saw an unprecedented increase in its trading volume in 2007-08. The volumes increased from Rs. 590,070 million (US $ 13,537 million) in 2006-07 to Rs. 2,423,080 million (US $ 60,622 million) in 2007-08, a rise of 311%. However, the share of BSE in the total derivative markets turnover remains a miniscule 1.81%.

Looking at the product-wise turnover on the NSE (Table 7-8 and Chart 7-1), it is seen that stock futures account for the highest percentage turnover among the various products, followed by index futures. In 2007-08 index futures accounted for 29% and stock futures accounted for 58% of the total derivatives markets turnover on the NSE.. Thus, it is evident from the statistics that the futures are more popular than options; futures contracts on securities being the most popular. During the first quarter 2008-09, a rise in the volumes is noticed in Index options which accounted for 22 % of the total derivatives turnover.

Table 7-8: Product wise turnover on the derivatives segment of NSE

Year	Index Futures			Stock Futures			Index Options			Stock Options			Total		Average Daily Turnover (Rs. mn.)
	No. of contracts	Turnover (Rs.mn.)	% share in total turnover	No. of contracts	Turnover (Rs. mn.)	% share in total turnover	No. of contracts	Notional Turnover (Rs.mn.)	% share in total turnover	No. of contracts	Notional Turnover (Rs. mn)	% share in total turnover	No. of contracts	Turnover (Rs. mn)	
2004-05	21,635,449	7,721,470	30.32	47,043,066	14,840,560	58.27	3,293,558	1,219,536	4.79	5,045,112	1,688,360	6.63	77,017,185	25,469,820	101,070
2005-06	58,537,886	15,137,550	31.38	80,905,493	27,916,970	57.87	12,935,116	3,384,690	7.02	5,240,776	1,802,530	3.74	157,619,271	48,241,740	192,200
2006-07	81,487,424	25,395,740	34.52	104,955,401	38,309,670	52.08	25,157,438	7,919,060	10.77	,283,310	1,937,950	2.63	16,883,573	73,562,420	295,430
2007-08	**156,598,579**	**38,206,673**	**29.19**	**203,587,952**	**75,485,632**	**57.66**	**55,366,038**	**13,621,109**	**10.41**	**9,460,631**	**3,591,366**	**2.74**	**25,013,200**	**130,904,778**	**521,533**
Apr-08	12,063,172	2,801,003	36.55	15,601,531	3,369,009	43.96	5,365,231	1,335,649	17.43	699,890	158,647	2.07	33,729,824	7,664,306	383,215
May-08	11,161,427	2,676,407	33.54	16,693,260	3,801,607	47.64	5,078,960	1,290,665	16.18	906,408	210,405	2.64	33,840,055	7,979,084	398,954
Jun-08	17,941,870	3,779,390	34.86	19,154,946	3,759,867	34.68	13,564,436	3,087,086	28.48	939,877	214,299	1.98	51,601,129	10,840,643	516,221
April 08-June 08	**41,166,469**	**9,256,800**	**34.95**	**51,449,737**	**10,930,483**	**41.27**	**24,008,627**	**5,713,400**	**21.57**	**2,546,175**	**583,350**	**2.20**	**119,171,008**	**26,484,033**	**434,164**

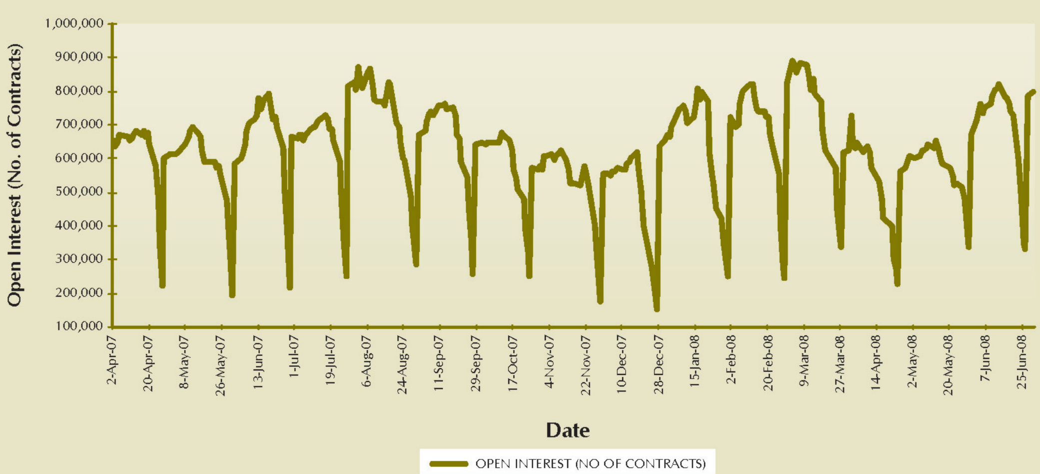
Chart 7-1: Product-wise Distribution of Turnover of F&O Segment of NSE, 2007-08



Open Interest

Open interest is the total number of outstanding contracts that are held by market participants at the end of each day. Putting it simply, open interest is a measure of how much interest is there in a particular option or future. Increasing open interest means that fresh funds are flowing in the market, while declining open interest means that the market is liquidating. The highest open interest in index futures at NSE was recorded at 888,001 contracts on March 3, 2008. The daily open interest for near month index futures at NSE is presented in (Chart 7-2).

Chart 7-2: Daily Open Interest for Near Month Nifty Futures for April 2007- June 2008



Implied Interest Rate

In the futures market, implied interest rate or cost of carry is often used inter-changeably. Cost of carry is more appropriately used for commodity futures, as by definition it means the total costs required to carry a commodity or any other good forward in time. The costs involved are storage cost, insurance cost, transportation cost and the financing cost. In case of equity futures, the carry cost is the cost of financing minus the dividend returns. Assuming zero dividends, the only relevant factor is the cost of financing.

Implied interest rate is the percentage difference between the future value of an index and the spot value, annualized on the basis of the number of days before the expiry of the contract. Carry cost or implied interest rate plays an important role in determining the price differential between the spot and the futures market. By comparing the implied interest rate and the existing interest rate level, one can determine the relative cost of futures' market price. Implied interest rate is also a measure of profitability of an arbitrage position. Theoretically, if the futures price is less than the spot price plus cost of carry or if the futures price is greater than the spot price plus cost of carry, arbitrage opportunities exist.

The futures prices are available for different contracts at different points of time. (Chart 7-3) presents Nifty 50 futures close prices for the near month contracts, and the spot Nifty 50 close values from April 2007 to June 2008. The difference between the future and the spot price is called *basis*. As the time to expiration approaches, the basis reduces. Daily implied interest rate for Nifty 50 futures from April 2007 to June 2008 is presented in (Chart 7-4). The implied interest rate for near month Nifty 50 futures as on last trading of the month is presented in (Table 7-9). It is observed that index futures market suffers from mispricing in the sense that futures trade at discount to underlying. This may be due to restrictions on short sales and lack of maturity.

Chart 7-3: Nifty Futures and Spot Price (April 2007-June 2008)

Chart 7-4: Implied Interest Rate for Near Month Nifty Futures (April 1, 2008 to June 30, 2008)

Table 7-9: Implied Interest Rate for Near Month Nifty Futures (April 2007 - June 2008)

Month	Expiry Date of near month Contract	Closing Future Price	Closing Spot Price	Implied Interest Rate (%)
Apr-07	31-May-2007	4090.25	4087.90	0.68
May-07	31-May-2007	4290.05	4295.80	0.00
Jun-07	26-Jul-2007	4293.40	4318.30	-7.82
Jul-07	30-Aug-2007	4508.15	4528.85	-5.57
Aug-07	27-Sep-2007	4429.15	4464.00	-10.60
Sep-07	25-Oct-2007	5037.60	5021.35	4.37
Oct-07	29-Nov-2007	5907.35	5900.65	1.43
Nov-07	27-Dec-2007	5803.50	5762.75	9.53
Dec-07	31-Jan-2008	6162.95	6138.60	4.66
Jan-08	31-Jan-2008	5133.25	5137.45	0.00
Feb-08	27-Mar-2008	5181.10	5223.50	-11.02
Mar-08	24-Apr-2008	4732.30	4734.50	-0.71
Apr-08	29-May-2008	5188.80	5165.90	5.57
May-08	26-Jun-2008	4850.10	4870.10	-5.56
Jun-08	24-Jul-2008	3972.75	4040.55	-25.74

Note: (1) The implied interest rate is calculated on the last trading day of the month for Near Month Nifty Futures
(2) Number of days in a year have been taken as 365

Source: NSE.

Implied Volatility

Volatility is one of the important factors, which is taken into account while pricing options. It is a measure of the amount and the speed of price change. To estimate future volatility, a time series analysis of historical volatility may be carried out to know the future movements of the underlying. Alternatively, one could work out implied volatility by entering all parameters into an option pricing model and then solving it for volatility. For example, the Black Scholes model solves for the fair price of the option by using the following parameters–days to expiry, strike price, spot price, and volatility of underlying, interest rate, and dividend. This model could be used in reverse to arrive at implied volatility by putting the current price of the option prevailing in the market.

Putting it simply implied volatility is the estimate of how volatile the underlying will be from the present until the currency of option. If volatility is high, then the options premiums are relatively expensive and vice-versa. However, implied volatility estimate can be biased, especially if they are based upon options that are thinly traded samples.

Settlement

All derivative contracts are currently cash settled. During 2007-08, the cash settlement amounted to Rs. 15,65,192.40 million with settlement of futures and of options accounting for Rs. 1,446,547 million and Rs. 67,601.70 million) respectively. The detail of the settlement statistics in the F&O segment is presented in (Table 7-10).

Table 7-10: Settlement Statistics in F&O Segment

Month/Year	(In Rs. mn.)					(In US $ mn.)
	Index/Stock Futures		Index/Stock Options		Total	Total
	MTM Settlement	Final Settlement	Premium Settlement	Exercise Settlement		
Apr-06	74,135.00	974.70	2,371.30	1,043.20	78,524.20	1,801.43
May-06	135,940.00	1,350.70	3,260.50	1,241.80	141,793.00	3,252.88
Jun-06	68,541.00	502.90	2,653.60	970.10	72,667.60	1,667.07
Jul-06	28,100.00	560.50	1,973.20	736.00	31,369.70	719.65
Aug-06	15,580.00	388.90	1,927.10	1,147.90	19,043.90	436.89
Sep-06	28,265.00	271.00	1,923.70	727.40	31,187.10	715.46
Oct-06	22,182.00	279.50	2,225.40	641.50	25,328.40	581.06
Nov-06	24,120.00	573.80	2,123.30	1,330.20	28,147.30	645.73
Dec-06	59,688.00	346.20	2,943.00	882.50	63,859.70	1,465.01
Jan-07	36,640.00	990.40	2,765.20	1,213.30	41,608.90	954.55
Feb-07	59,817.00	1,152.80	3,214.10	592.80	64,776.70	1,486.04
Mar-07	60,129.00	584.00	4,563.40	1,361.70	66,638.10	1,528.75
2006-07	**613,137.00**	**7,975.40**	**31,943.80**	**11,888.40**	**664,944.60**	**15,254.52**
Apr-07	41,629.00	419.60	3,855.80	1,883.60	47,788.00	1,195.60
May-07	32,511.00	949.20	2,941.30	2,114.30	38,515.80	963.62
Jun-07	37,945.00	725.90	3,670.70	922.40	43,264.00	1,082.41
Jul-07	49,352.00	716.40	4,981.50	2,476.70	57,526.60	1,439.24
Aug-07	112,990.00	1,076.00	5,998.40	1,438.80	121,503.20	3,039.86
Sep-07	53,000.00	1,034.20	5,696.20	5,836.20	65,566.60	1,640.40
Oct-07	159,240.00	2,226.10	9,184.10	6,698.40	177,348.60	4,437.04
Nov-07	162,480.00	2,823.80	6,151.10	3,271.70	174,726.60	4,371.44
Dec-07	141,250.00	771.70	4,783.80	2,036.00	148,841.50	3,723.83
Jan-08	397,680.00	1,051.10	7,779.50	7,674.30	414,184.90	10,362.39
Feb-08	136,790.00	640.00	6,045.80	1,698.80	145,174.60	3,632.09
Mar-08	121,680.00	687.20	6,513.50	1,871.40	130,752.10	3,271.26
2007-08	**1,446,547.00**	**13,121.20**	**67,601.70**	**37,922.60**	**1,565,192.50**	**39,159.18**
Apr-08	53,915.00	667.10	7,859.60	1,640.20	64,081.90	1,492.01
May-08	56,015.00	2,036.40	6,035.90	1,907.80	65,995.10	1,536.56
Jun-08	91,828.00	1,373.00	11,260.00	3,418.60	107,879.60	2,511.75
April 08-June 08	**201,758.00**	**4,076.50**	**25,155.50**	**6,966.60**	**237,956.60**	**5,540.32**

Policy Debates[3]

New products

India has seen a tremendous growth in its derivatives markets. However, there are many products which are yet to be launched in Indian markets. Rupee currency futures is one such product which has recently been launched on the NSE and other exchanges. In the rest of the world, new and innovative derivative products are being traded. These include, weather derivatives, Volume futures/options, Energy derivatives, Credit derivatives etc. Going ahead, our market regulators too needs to strive towards expanding the universe of available hedging instruments in the form of derivatives by encouraging financial innovation.

Institutional participation in derivatives markets

One major question concerns institutional participation in the equity derivatives market. This issue has been highlighted by the High Level Expert Committee on Making Mumbai an International Financial Centre (Percy Mistry Committee) in its Report. The Committee points out that though we can take credit for the success of Nifty derivatives market, this market is still riddled with weaknesses. Liquidity is limited to a maturity of one month and at-the-money options. In the NSE derivatives markets, liquidity for the NSE derivatives market, liquidity for options lags futures liquidity by too wide a margin. Some of these problems can be resolved by having an adequate mass of institutional investors, with sufficient room for manoeuvre, so that they could perform their proper role.

Internationally, banks and mutual funds are major players on the equity derivatives market. In India, owing to a variety of regulatory and governance problems, this has just not materialized. In 2007-08, FIIs accounted for 40.36% of the open interest in the derivatives markets, with the share of mutual funds being only 6.03% and proprietary trades accounting for 11.33%. A major part of the open interest was held by "others" including retail investors.

SEBI's rules governing mutual funds have eased most of the legitimate difficulties of mutual funds in terms of regulatory restrictions. Rules governing FIIs, and insurance companies, have been partly eased. Banks currently continue to face stringent regulatory hurdles. Banks need to be allowed to participate in these markets as players and not just hedgers. As these players start utilizing the equity derivatives market, the market could see an enormous increase in liquidity.

OTC vs. Exchange traded derivatives

OTC (over-the-counter) contracts, such as forwards and swaps, are bilaterally negotiated between two parties. The terms of an OTC contract are flexible, and are often customized to fit the specific requirements of the user. OTC contracts have substantial credit risk, which is the risk that the counterparty that owes money defaults on the payment. In India, OTC derivatives were, till recently, illegal except for specific contracts under FRAs/IRS on domestic currency as allowed by RBI. However, RBI Act has been amended in 2006 to provide that such derivative contracts, as may be specified by the RBI from time to time, shall be valid if atleast one of the partied to the transaction is the RBI, a scheduled bank or such other agency falling under the purview of the RBI under certain Acts. Thus, OTC contracts have been granted a legal status.

An exchange-traded contract, such as a futures contract, has a standardized format that specifies the underlying asset to be delivered, the size of the contract, and the logistics of delivery. They trade on organized exchanges with prices determined by the interaction of many buyers and sellers. Contract performance is guaranteed by a clearinghouse/ corporation. Margin requirements and daily marking-to-market of futures positions substantially reduce the credit risk of exchange-traded contracts, relative to OTC contracts.

[3] The views and approaches reflected in the policy debates are not necessarily of the NSE.

The Percy Mistry Committee and more recently, the Committee on Financial Sector Reforms (CFSR) (Raghuram Rajan) have emphasised the importance of exchange-traded derivatives. The latter report says that: *"For simple derivatives*

– such as currency forwards – the exchange is a superior method for organising the market as compared with the OTC market."

It further adds that, *"while both OTC derivatives and exchange-traded derivatives undoubtedly have a role to play in a sophisticated financial system, there is merit in encouraging the migration of trading in standardised products to the exchange so as to mitigate risk. There is certainly no case for biasing public policy against exchange-traded, and in favour of, OTC."*

The recent events in global finance amplify the importance of exchange-traded derivatives. The credit default swap is a perfectly good product - as long as it is transacted on an exchange with a Clearing corporation acting as a counterpary. However, when transacted OTC, this product has induced systemic risk. The fact that some of the features of OTC derivatives are information asymmetry and lack of transparency, the dynamic nature of their gross credit exposures and high concentration of activates in major institutions, these products are inherently risky.

In order to control the associated systemic risks with increased size of derivative transactions, the CFSR has suggested a two-pronged strategy. First, standardised products should be encouraged to migrate to exchanges. Second, clearing corporations such as NSCC and CCIL must be encouraged to offer risk management services for the OTC market. If these two strategies are applied fully, systemic risk will then be limited to the small class of OTC derivatives positions which are not understood by the clearing corporations.

Consolidation of cash and derivative markets technology

The World Federation of Exchanges, in June 2008, concluded a study on best practices in respect of the merging of cash and derivatives market technology within a national jurisdiction. Several Exchanges were targeted who have either merged cash and derivative markets, or who have created a derivative market having established a cash one. The study showed that there is no clear best practice as such, that each case needs to be examined on its own merits. The study does show that there are surprisingly more reasons not to consolidate technology than to do so.

Some of the highlights of the study are presented below:

The arguments in favor of consolidation

Cost savings and rationalization: Significant savings of up to 30 % can be realised in the reduction of trading systems from two to one. Each trading system needs several environments to be supported for testing, training, member testing, performance and development. All of these require hardware and staff to support them.

Members cost savings: Members experience significant savings through not having to pay for two sets of distinct network connections (not including all of the resiliency connections), systems for receiving market data and for trading in general.

Flexibility of market models, cross asset margining: A single system allows many different products to be traded alongside each other, whether derivatives, fixed income or equities. Cross asset margining can be achieved without integration; however an integrated system will allow real-time risk management. It should be noted that all the Exchanges studied do not do real-time cross asset margining as its benefits are considered marginal.

Contingent order functionality: The ability to trade derivatives whilst also trading their underlying stocks reduces risk in hedging situations. This is only truly possible at the Stock Exchange on a consolidated system.

The reasons that Exchanges have given for not consolidating

Operational risk: Increasing complexity brings a higher risk of failure or of poor performance. Derivative systems need market configuration on a much greater basis than cash markets.

Lack of congruence between market participants: Some Exchanges have a completely different set of organizations trading cash verses derivatives, thus there are insufficient benefits to members in consolidating platforms.

Members have different systems for trading cash and derivatives: Many members in the established markets have completely different systems for internal trading of cash and derivatives, and thus do not benefit from a consolidated platform.

Ability to manage change on different markets: With different systems, changes can be made to one market without requiring all members to test and redevelop their systems. Derivative markets tend to change more, however only 25 % (on average) of the equities markets participants trade derivatives too, thus the cash market participants are inconvenienced by redevelopment and testing which they do not benefit from.

Performance issues: Keeping the systems separate ensures that problems in one do not affect the other and that in high-volume markets the processing in the central order book is kept to a minimum.

The study concludes that the optimal model is one where both the cash and the derivatives systems are based on the same technology, but different servers performing trading, with different versions of software. Members should be able to communicate with the central markets through the same messaging middleware, so that they only have one connection to the Exchange, minimizing communication costs. The Exchange also benefits through only needing one set of development, support, maintenance, running fewer testing environments; meanwhile avoids problems with operational risk and performance.

The Indian model in on the lines of the above conclusion and it is likely that many more exchanges would be moving towards this model.

Foreign Institutional Investors in India

Evolution of policy framework[1]

Until the 1980s, India's development strategy was focused on self-reliance and import-substitution. Current account deficits were financed largely through debt flows and official development assistance. There was a general disinclination towards foreign investment or private commercial flows. Since the initiation of the reform process in the early 1990s, however, India's policy stance has changed substantially, with a focus on harnessing the growing global foreign direct investment (FDI) and portfolio flows. The broad approach to reform in the external sector after the Gulf crisis was delineated in the Report of the High Level Committee on Balance of Payments (Chairman: C. Rangarajan). It recommended, inter alia, a compositional shift in capital flows away from debt to non-debt creating flows; strict regulation of external commercial borrowings, especially short-term debt; discouraging volatile elements of flows from non-resident Indians (NRIs); gradual liberalisation of outflows; and dis-intermediation of Government in the flow of external assistance.

After the launch of the reforms in the early 1990s, there was a gradual shift towards capital account convertibility. From September 14, 1992, with suitable restrictions, FIIs and Overseas Corporate Bodies (OCBs) were permitted to invest in financial instruments.[2] The policy framework for permitting FII investment was provided under the Government of India guidelines vide Press Note dated September 14, 1992, which enjoined upon FIIs to obtain an initial registration with SEBI and also RBI's general permission under FERA. Both SEBI's registration and RBI's general permissions under FERA were to hold good for five years and were to be renewed after that period. RBI's general permission under FERA could enable the registered FII to buy, sell and realise capital gains on investments made through initial corpus remitted to India, to invest on all recognised stock exchanges through a designated bank branch, and to appoint domestic custodians for custody of investments held. The Government guidelines of 1992 also provided for eligibility conditions for registration, such as track record, professional competence, financial soundness and other relevant criteria, including registration with a regulatory organisation in the home country. The guidelines were suitably incorporated under the SEBI (FIIs) Regulations, 1995. These regulations continue to maintain the link with the government guidelines by inserting a clause to indicate that the investment by FIIs should also be subject to Government guidelines. This linkage has allowed the Government to indicate various investment limits including in specific sectors.

With coming into force of the Foreign Exchange Management Act, (FEMA), 1999 in 2000, the Foreign Exchange Management (Transfer or issue of Security by a Person Resident Outside India) Regulations, 2000 were issued to provide the foreign exchange control context where foreign exchange related transactions of FIIs were permitted by RBI. A philosophy of preference for institutional funds, and prohibition on portfolio investments by foreign natural persons has been followed, except in the case of Non-resident Indians, where direct participation by individuals takes place. Right

1 Source: Report of Expert Group on Encouraging FII Flows and Checking the Vulnerability of Capital Markets to Speculative flows, November, 2005

2 An OCB is a company, partnership firm, society and other corporate body owned directly or indirectly to the extent of at least sixty per cent by NRIs and includes overseas trust in which not less than sixty per cent beneficial interest is held by NRIs directly or indirectly but irrevocably.

from 1992, FIIs have been allowed to invest in all securities traded on the primary and secondary markets, including shares, debentures and warrants issued by companies which were listed or were to be listed on the Stock Exchanges in India and in schemes floated by domestic mutual funds.

Historical evolution of FII Policy is summarized below:

Date	Policy change
September 1992	FIIs allowed to invest by the Government Guidelines in all securities in both primary and secondary markets and schemes floated by mutual funds. Single FIIs to invest 5 per cent and all FIIs allowed to invest 24 per cent of a company's issued capital. Broad based funds to have 50 investors with no one holding more than 5 per cent. The objective was to have reputed foreign investors, such as, pension funds, mutual fund or investment trusts and other broad based institutional investors in the capital market.
November 1996	100 per cent debt FIIs were permitted to give operational flexibility to FIIs.
April 1997	Aggregated limit for all FIIs increased to 30 per cent subject to special procedure and resolution. The objective was to increase the participation by FIIs.
April 1998	FIIs permitted to invest in dated Government securities subject to a ceiling. Consistent with the Government policy to limit the short-term debt, a ceiling of USD 1 billion was assigned which was increased to USD 1.75 billion in 2004.
June 1998	Aggregate portfolio investment limit of FIIs and NRIs/PIOs/OCBs enhanced from 5 per cent to 10 per cent and the ceilings made mutually exclusive. Common ceilings would have negated the permission to FIIs. Therefore, separate ceilings were prescribed.
June 1998	Forward cover allowed in equity. FIIs permitted to invest in equity derivatives. The objective was to make hedging instruments available.
February 2000	Foreign firms and high net-worth individuals permitted to invest as sub-accounts of FIIs. Domestic portfolio manager allowed to be registered as FIIs to manage the funds of sub-accounts. The objective was to allow operational flexibility and also give access to domestic asset management capability.
March 2001	FII ceiling under special procedure enhanced to 49 per cent. The objective was to increase FII participation
September 2001	FII ceiling under special procedure raised to sectoral cap.
December 2003	FII dual approval process of SEBI and RBI changed to single approval process of SEBI. The objective was to streamline the registration process and reduce the time taken for registration.
November 2004	Outstanding corporate debt limit of USD 0.5 billion prescribed. The objective was to limit short-term debt flows.
April 2006	Outstanding corporate debt limit increased to USD 1.5 billion prescribed. The limit on investment in Government securities was enhanced to USD 2 bn. This was an announcement in the Budget of 2006-07
November, 2006	FII investment upto 23% permitted in infrastructure companies in the securities markets, viz. stock exchanges, depositories and clearing corporations. This is a decision taken by Government following the mandating of demutualization and corporatization of stock exchanges.
January and October, 2007	FIIs allowed to invest USD 3.2 billion in Government Securities (limits were raised from USD 2 billion in two phases of USD 0.6 billion each in January and October)
June, 2008	While reviewing the External Commercial Borrowing policy, the Government increased the cumulative debt investment limits from US $3.2 billion to US $5 billion and US $1.5 billion to US $3 billion for FII investments in Government Securities and Corporate Debt, respectively.

As is evident from the above, the evolution of FII policy in India has displayed a steady and cautious approach to liberalisation of a system of quantitative restrictions (QRs). The policy liberalisation has taken the form of (i) relaxation of investment limits for FIIs; (ii) relaxation of eligibility conditions; and (iii) liberalisation of investment instruments accessible for FIIs.

Policy Developments

I. Permission for Short selling of Equity Shares by SEBI registered FIIs

SEBI registered FIIs / subaccounts of FIIs were permitted to buy / sell equity shares / debentures of Indian companies. However, they were not allowed to engage in short selling and were required to take delivery of securities purchased and give delivery of securities sold.

After a due consultation process, it was decided to permit FIIs registered with SEBI and sub-accounts of FIIs to short sell, lend and borrow equity shares of Indian companies, subject to such conditions as may be prescribed in that behalf by the Reserve Bank and the SEBI / other regulatory agencies from time to time.

Accordingly, RBI, through a circular dated 31st December, 2007, permitted the above subject to the following conditions:

(i) The FII participation in short selling as well as borrowing / lending of equity shares will be subject to the current FDI policy and short selling of equity shares by FIIs would not be permitted for equity shares which are in the ban list and / or caution list of Reserve Bank.

(ii) Borrowing of equity shares by FIIs would only be for the purpose of delivery into short sale.

(iii) The margin / collateral would be maintained by FIIs only in the form of cash. No interest would be paid to the FII on such margin/collateral.

RBI further provided that the designated custodian banks should separately report all transactions pertaining to short selling of equity shares and lending and borrowing of equity shares by FIIs in their daily reporting with a suitable remark (short sold / lent / borrowed equity shares) for the purpose of monitoring by the Reserve Bank.

SEBI also issued an amendment to the FII Regulations permitting FIIs to short sell and lend and borrow securities.

II. FII investments in Debt Securities

SEBI vide its circular dated January 19, 2007 announced the increase in the cumulative debt investment limit available for investment by FIIs/ Sub Accounts in Government Securities/ T-Bills from US $2 billion to US $2.6 billion. This limits was further enhanced to US $3.2 billion vide SEBI circular dated January 31, 2008.

It was noticed that there was no uniformity among custodians with respect to considering investments by FIIs in debt oriented mutual fund units either as debt or equity. In consultation wit RBI, SEBI decided that investments by FIIs/ Sub Accounts in debt oriented mutual fund units (including units of money market and liquid funds) should henceforth be considered as corporate debt investments and reckoned within the stipulated limit of US $1.5 billion, earmarked for FII/ Sub Account investments in corporate debt.

In view of the above, the following was made applicable with immediate effect:

1. Henceforth, there would be no demarcation between 100% debt and normal 70:30 FIIs/ Sub Accounts for the purposes of allocation of debt investment limits. The individual limits allocated to the 100% debt FIIs/ Sub Accounts stand cancelled.

2. The allocation of unutilized/ unallocated limits for investments in Government Securities/ T-Bills would be on first-come-first-serve basis. The allocation would be valid for a period of 15 days from the date of the allocation letter, on the expiry of which the unutilized limits would lapse.

3. As mentioned above, the investments by FIIs/ Sub Accounts in debt oriented mutual fund schemes should now be reckoned as investments in corporate debt. On re-calculating the investment figures for investments by FIIs/ Sub Accounts in corporate debt, by including their investments in units of debt oriented mutual funds, it is seen that the corporate debt investments exceed the permissible limit of US $1.5 billion. Thus, in order to conform to the stated limit, there should be no further investment, or rollover, of existing position in corporate debt, by both 100% debt and normal 70:30 FIIs, till the holdings fall within the stipulated limit of US $1.5 billion.

III. Foreign investment in Commodity Exchanges

Government of India decided to allow foreign investment in Commodity Exchanges subject to the following conditions:

i) There would be a composite ceiling of 49% Foreign Investment, with a FDI limit of 26% and an FII limit of 23%.

ii) FDI will be allowed with specific approval of the Government.

iii) The FII purchases in equity of Commodity Exchanges will be restricted only to the secondary markets.

iv) Foreign Investment in Commodity Exchanges would also be subject to compliance with the regulations issued, in this regard, by the Forward Market Commission.

Accordingly, a necessary circular was issued by RBI on 28th April, 2008.

IV. Foreign investment in Credit Information Companies

The Government decided to allow foreign investment in Credit Information Companies in compliance with the Credit Information Companies (Regulations) Act 2005 and subject to the following:

i) The aggregate Foreign Investment in Credit Information Companies would be 49%.

ii) Foreign Investment upto 49% would be allowed only with the prior approval of FIPB and regulatory clearance from RBI.

iii) Investment by SEBI Registered FIIs would be permitted only through purchases in the secondary market to an extent of 24%.

iv) Investment by SEBI Registered FIIs would be within the overall limit of 49% for Foreign Investment.

Accordingly, a necessary circular was issued by RBI on 28th April, 2008.

V. FII investments in Debt Securities

The Government reviewed the External Commercial Borrowing policy and increased the cumulative debt investment limits from US $3.2 billion to US $5 billion and US $1.5 billion to US $3 billion for FII investments in Government Securities and Corporate Debt, respectively. Accordingly, SEBI issued a necessary circular giving effect to this decision on June 6, 2008.

It was further provided that the enhanced limits should be allocated among the FIIs on a 'first come first served' basis in terms of SEBI's earlier circular dated January 31, 2008, subject to a ceiling of US $200 million per registered entity.

Market Design

Entities eligible to invest under FII route:	**As FII**: (i) an institution established or incorporated outside India as a pension fund, mutual fund, investment trust, insurance company or reinsurance company; (ii) an International or Multilateral Organization or an agency thereof or a Foreign Governmental Agency, Sovereign Wealth Fund or a Foreign Central Bank; (iii) an asset management company, investment manager or advisor, bank or institutional portfolio manager, established or incorporated outside India and proposing to make investments in India on behalf of broad based funds and its proprietary funds, if any; (iv) a Trustee of a trust established outside India, and proposing to make investments in India on behalf of broad based funds and its proprietary funds, if any (iv) university fund, endowments, foundations or charitable trusts or charitable societies 'broad based fund" means a fund established or incorporated outside India, which has at least twenty investor with no single individual investor holding more hat fort-nine per cet of the shares or units of the fund **As Sub-accounts**: The sub account is generally the underlying fund on whose behalf the FII invests. The eligibility conditions for sub-accounts include: (i) the applicant may be an institution or fund or portfolio established or incorporated outside India and proposes to make investment in India; (ii) the applicant may be a broad based fund or proprietary fund or a foreign institutional investor or a foreign corporate or foreign individual; (iii) the Foreign Institutional Investor through whom the application for registration is made to the Board holds a certificate of registration as Foreign Institutional Investor. A non-resident Indian or an overseas corporate body registered with Reserve Bank of India should not be eligible to invest as sub-account or as foreign institutional investor.
Investment restrictions	An FII can invest only in the following:- (i) securities in the primary and secondary markets including shares, debentures and warrants of companies ,unlisted, listed or to be listed on a recognised stock exchange in India; (ii) units of schemes floated by domestic mutual funds including Unit Trust of India, whether listed or not listed on a recognised stock exchange; units of scheme floated by a Collective Investment Scheme. (iii) dated Government securities and (iv) derivatives traded on a recognised stock exchange; (v) commercial paper; (vi) security receipts. In case foreign institutional investor or sub-account holds equity shares in a company whose shares are not listed on any recognized stock exchange, and continues to hold the shares after initial public offering and listing, then such shares would be subject to lock-in for the same period, if any is applicable to shares held by a foreign direct investor placed in similar position, under the policy of the Central Government relating to foreign direct investment for the time being in force.

	The total investments in equity and equity related instruments (including fully convertible debentures, convertible portion of partially convertible debentures and tradable warrants) made by a FII in India, whether on his own account or on account of his sub- accounts, should not be less than seventy per cent of the aggregate of all the investments of the Foreign Institutional Investor in India, made on his own account and on account of his sub-accounts. However, this is not applicable to any investment of the foreign institutional investor either on its own account or on behalf of its sub-accounts in debt securities which are unlisted or listed or to be listed on any stock exchange if the prior approval of the SEBI has been obtained for such investments. Further, SEBI while granting approval for the investments may impose conditions as are necessary with respect to the maximum amount which can be invested in the debt securities by the foreign institutional investor on its own account or through its sub-accounts. A foreign corporate or individual is not eligible to invest through the hundred percent debt route. Investments made by FIIs in security receipts issued by securitization companies or asset reconstruction companies under the Securitiation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 are not eligible for the investment limits mentioned above. No foreign institutional can invest in security receipts on behalf of its sub-account. **FII Investment in secondary markets:** SEBI regulations provide that a foreign institutional investor or sub-account can transact in the Indian securities market only on the basis of taking and giving delivery of securities purchased or sold. However, this does not apply to any transactions in derivatives on a recognised stock exchange. Further, SEBI has, in December, 2007 permitted FIIs and sub-accounts to enter into short selling transactions only in accordance with the framework specified by SEBI in this regard. No transaction on the stock exchange would be carried forward and the transaction in securities would be only through stock broker who has been granted a certificate by SEBI. They has also been allowed to lend or borrow securities in accordance with the framework specified by SEBI in this regard. A Foreign institutional investor can issue, or otherwise deal in offshore derivative instruments, directly of indirectly wherein the offshore derivative instruments are issued only to persons who are regulated by an appropriate foreign regulatory authority and the ODIs are issued after compliance with 'know your client' norms.
General Obligations And Responsibilities	Certain general obligations and responsibilities relating to appointment of domestic custodians, designated bank, investment advice in publicly accessible media etc. have been laid down on the FIIs operating in the country in the SEBI, FII Regulations 1995.
Allocation of Funds	The SEBI registered FII should restrict allocation of its investment between equities and debt in the Indian Capital Market in the ratio 70:30. The FII may form a 100 % debt fund and get such fund registered with SEBI. Investment in debt securities by FIIs are subject to limits if any stipulated by SEBI in this regard.
Private Placement with FIIs	SEBI registered FIIs have been permitted to purchase shares/convertible debentures of an Indian company through offer/private placement subject to the ceiling of 10% of the paid up capital of the Indian company for individual FII/sub account and 24% for all FIIs/sub accounts put together. Indian company is permitted to issue such shares provided that: (i) in the case of public offer, the price of shares to be issued is not less than the price at which shares are issued to residents and (ii) in the case of issue by private placement, the price is not less than the price arrived at in terms of SEBI guidelines issued by the erstwhile Controller of Capital issues as applicable. Purchases can also be made of Partially Convertible debentures, Fully Convertible debentures, Rights/Renunciations/Warrants/Units of Domestic Mutual Fund Schemes.

Risk Management	
Forward Cover & Cancellation and Rebooking	Authorized Dealer Banks can offer forward cover to FIIs to the extent of total inward remittance of liquidated investment. Rebooking of cancelled forward contracts is allowed up to a limit of 2 % of the market value of the entire investment of FIIs in equity and/or debt in India. The limit for calculating the eligibility for rebooking will be based upon market value of the portfolio as at the beginning of the financial year (April-March). The outstanding contracts have to be duly supported by underlying exposure at all times. The AD Category –I bank has to ensure that (i) that total forward contracts outstanding doesn't exceed the market value of portfolio and (ii) forward contracts permitted to be rebooked doesn't exceed 2 % of the market value as determined at the beginning of the financial year. The monitoring of forward cover is to be done on a fortnightly basis.
FII Position Limits In Derivatives Contracts	SEBI registered FIIs are allowed to trade in all exchange traded derivative contracts on the stock exchanges in India subject to the position limits as prescribed by SEBI from time to time. These have been listed out in Chapter 7. Monitoring of Position Limits for FII Clearing Corporation monitors the open positions of the FII/ sub-account of the FII for each underlying security and index, against the position limits specified at the level of FII/ sub-accounts of FII respectively, at the end of each trading day.
Monitoring of investment position by RBI	The Reserve Bank of India (RBI) monitors the investment position of FIIs in listed Indian Companies, reported by Custodian Banks on a daily basis in Form LEC(FII). Caution List When the total holdings of FIIs/NRIs under the Scheme reach the trigger limit, which is 2 % below the applicable limit. Reserve Bank issues a notice to all the designated branches of an Authorised Dealer banks stating that any further purchases of shares of the particular Indian company will require prior approval of Reserve Bank. (For companies with paid-up capital of Rs.1,000 crore and above, the trigger limit is 0.5 % below the applicable limit). RBI gives case-by case approvals to FIIs for purchase of shares of companies included in the Caution List. This is done on first-come-first served basis. Ban List Once the shareholding by FIIs/NRIs reaches the overall ceiling/sectoral cap/statutory limit, Reserve Bank puts the company on the Ban List. Once a company is placed on the Ban List, no FII or NRI can purchase the shares of the company under the Portfolio Investment Scheme.
Margin Requirements	SEBI registered FIIs/sub-accounts are allowed to keep with the trading member/clearing member amount sufficient to cover the margins prescribed by the exchange/Clearing House and such amounts as may be considered to meet the immediate needs.

Investment by FIIs under Portfolio Investment Scheme

RBI has given general permission to SEBI registered FIIs/sub-accounts to invest under the Portfolio Investment Scheme (PIS).

- Total holding of each FII/sub account under this scheme should not exceed 10% of the total paid up capital or 10 % of the paid up value of each series of convertible debentures issued by the Indian company.
- Total holding of all the FIIs/sub-accounts put together should not exceed 24 % of the paid up capital or paid up value of each series of convertible debentures. This limit of 24 % can be increased to the sectoral cap / statutory limit as applicable to the Indian Company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body.

- A domestic asset management company or portfolio manager, who is registered with SEBI as an FII for managing the fund of a sub-account can make investments under the Scheme on behalf of:
  i. A person resident outside India who is a citizen of a foreign state or
  ii. A body corporate registered outside India.
- However, such investment should be made out of funds raised or collected or brought from outside through normal banking channel. Investments by such entities should not exceed 5 % of the total paid up equity capital or 5 % of the paid up value of each series of convertible debentures issued by an Indian company, and should also not exceed the overall ceiling specified for FIIs.

Market Outcome

Foreign Portfolio investments in India come in the form of investments in American Depository Receipts (ADRs)/ Global Depository Receipts (GDRs), Foreign Institutional Investments and investments in Offshore funds. However, FIIs constitute a major proportion of such portfolio flows (Table 8-1). The share of FIIs in total portfolio flows was as high as 95.97% in 2003-04 and 93.25% in 2004-05. It declined to 46% in 2006-07. This decline in FII investment in 2006-07 can be attributed to global developments like meltdown in global commodities markets and equity market during the three month period between May 2006 to July 2006, fall in Asian Equity markets, tightening of capital controls in Thailand and its spill over effects.

Table 8-1: Composition of Foreign Portfolio Investment in India

	(US $ mn)				
Year	**GDR/ADRs**	**FIIs@**	**Off-shore funds and others**	**Total Foreign Portfolio Investments**	**% contribution of FIIs to Total Foreign Portfolio Flows**
2001-02	477	1,505	39	2,021	74.47
2002-03	600	377	2	979	38.51
2003-04	459	10,918	-	11,377	95.97
2004-05	613	8,686	16	9,315	93.25
2005-06	2,552	9,926	14	12,492	79.46
2006-07P	3,776	3,225	2	7,003	46.05
2007-08P	8,769	20,328	298	29,395	69.15

Source:RBI
P:Provisional
-:Nil/Negligible
@ Data represents net inflow of funds by FIIs
( ) indicates negative values

The share of FII investment in total portfolio investment for 2007-08 is provisionally estimated to be 69.15%. The large FII inflows (net) in 2007-08 at USD 16 billion as against USD 6.7 billion in 2006-07 reflects increased participation of FIIs in the primary market as corporates raised large resources through 85 initial public offerings (IPOs) and 7 follow-on public offers (FPOs) aggregating to Rs 545,110 million. (US $ 13,638 million).

Looking at monthly trend in FII investments during 2007-08 (Table 8-2), it can be seen that net FII investment has been positive during most of the months. The months of August 2007, November 2007, January, 2008 and March, 2008 saw net outflows of FII investment, with the largest pull out of US $ 2727 mn in January, 2008.

During 2008-09, till June 2008, FIIs have been net sellers to the tune of US $ 4,189 million. This can be attributed to the generally weak sentiments of investors following the global credit crisis which has engulfed the developed countries and is seen to be affecting the developing countries as well.

Table 8-2: Trends in FII Investment

Period	Purchases (Rs. mn.)	Sales (Rs. mn.)	Net Investment (Rs. mn.)	Net Investment (US $ mn.)	Cumulative Net Investment (US $ mn.)
2001-02	499,199	411,650	87,552	1,846	15,242
2002-03	470,601	443,710	26,889	562	15,804
2003-04	1,448,575	990,940	457,645	9,949	25,754
2004-05	2,169,530	1,710,730	458,800	10,173	35,927
2005-06	3,449,780	3,055,120	394,660	9,334	477,063
2006-07	**5,205,090**	**4,896,680**	**308,410**	**6,709**	**51,967**
Apr-06	452,340	444,640	7,700	174	45,433
May-06	487,380	553,850	(66,470)	(1,473)	43,960
Jun-06	404,080	395,320	8,760	193	44,153
Jul-06	269,670	256,700	12,970	285	44,438
Aug-06	283,950	229,480	54,470	1,173	45,611
Sep-06	340,570	279,230	61,340	1,318	46,929
Oct-06	395,740	309,040	86,700	1,879	48,808
Nov-06	548,590	446,730	101,860	2,213	51,021
Dec-06	442,070	469,730	(27,660)	(599)	50,422
Jan-07	457,700	474,520	(16,820)	(370)	50,052
Feb-07	582,570	500,620	81,950	1,834	51,886
Mar-07	540,430	536,820	3,610	82	51,967
2007-08	**9,480,196**	**8,818,422**	**661,774**	**16,040**	**68,006**
Apr-07	506,333	429,118	77,215	1,752	53,718
May-07	521,276	468,080	53,196	1,265	54,982
Jun-07	502,029	491,016	11,013	269	55,252
Jul-07	873,316	647,223	226,093	5,545	60,797
Aug-07	618,209	689,832	(71,623)	(1772)	59,025
Sep-07	711,648	523,770	187,878	4,609	63,634
Oct-07	1,354,118	1,123,217	230,901	5,684	69,392
Nov-07	885,105	948,295	(63,190)	(1,567)	67,750
Dec-07	910,238	821,327	88,911	2,204	69,954
Jan-08	1,093,346	1,204,166	(110,820)	(2,747)	67,207
Feb-08	792,984	750,682	42,302	1,049	68,256
Mar-08	711,594	721,696	(10,102)	(250)	68,006
2008-09	**1,844,490**	**2,013,450**	**(168,960)**	**(4,189)**	**63,819**
Apr-08	623,290	629,560	(6,270)	(155.00)	67,852
May-08	589,660	641,410	(51,740)	(1,283)	66,569
Jun-08	631,540	742,480	(110,950)	(2,751)	63,819
April 2008 - June 2008	**1,844,490**	**2,013,450**	**(168,960)**	**(4,189)**	**63,819**

Source: SEBI.

( ) indicates negative values

Number of Foreign Institutional Investors (FIIs)

As of March 2008, there were 1,319 FIIs registered with SEBI, as against 997 in March 2007.

SEBI Registered FIIs in India																
Year	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
End of March	0	3	156	353	439	496	450	506	527	490	502	540	685	882	997	1,319

Source: SEBI

Foreign Institutional Investments- Equity and Debt

FIIs were allowed to invest in the Indian Capital Market securities from September 1992, however investment by them were first made in January 1993. Till December 1998, investments were related to equity only as the Indian gilts market was opened up for FII investment in April 1998. Investments in debt were made from January 1999. Foreign Institutional Investors (FIIs) continued to invest large funds in the Indian securities market. For two consecutive years in 2004-05 and 2005-06, net investment in equity showed year-on-year increase of 10%.

Highest net investment in equity by FIIs was seen in 2007-08 of Rs. 534,038 million (US $ 13,361 million) an increase of 112% over the 2006-07 net investment figure of Rs 252,370 million (US $ 5,790 million) During the first quarter of the fiscal 2008-09, FIIs have been net sellers in the equity market. They have sold equity worth Rs. 140,325 million (US $ 3,267 million) (Table 8-3)

Table 8-3: Net Investments by Foreign Institutional Investors in Equity and Debt

(Rs. million)

Year	FIIs	
	Net Investment in Equity	Net Investment in Debt
2001-02	**80,670**	**6,850**
2002-03	**25,280**	**600**
2003-04	**399,590**	**58,050**
2004-05	**441,230**	**17,590**
2005-06	**488,010**	**(73,340)**
2006-07	**252,370**	**56,070**
Apr-06	5,220	2,490
May-06	(73,540)	7,070
Jun-06	4,800	3,960
Jul-06	11,450	1,520
Aug-06	46,430	8,050
Sep-06	54,250	7,090

Contd.

Contd.

(Rs. million)

Year	FIIs	
	Net Investment in Equity	Net Investment in Debt
Oct-06	80,130	6,570
Nov-06	93,800	8,060
Dec-06	(36,670)	9,010
Jan-07	4,920	(21,740)
Feb-07	72,400	9,560
Mar-07	(10,820)	14,430
2007-08	**534,038**	**127,753**
Apr-07	66,792	10,423
May-07	39,597	13,601
Jun-07	16,431	(5,414)
Jul-07	238,724	(12,630)
Aug-07	(77,705)	6,084
Sep-07	161,326	26,558
Oct-07	205,909	24,995
Nov-07	(58,499)	(4,693)
Dec-07	55,791	33,120
Jan-08	(130,357)	19,538
Feb-08	17,333	24,968
Mar-08	(1,304)	(8,797)
2008-09	**(140,325)**	**(28,633)**
Apr-08	10,748	(17,017)
May-08	(50,115)	(1,629)
Jun-08	(100,958)	(9,987)

Source: SEBI

Highest net investment in debt by FIIs was seen in 2007-08 of Rs.127,753 million (US $ 3,196 million). During April 08-June 08, , FIIs have been net sellers in the debt markets as well. They have sold Rs. 28,633 million (US $ 667 million) of debt over this period (Table 8-3)

Share of FIIs in NSE Listed Companies

The FII ownership of shares in various sectors of NSE listed companies is presented in (Table 8-4). At the end of March 2008 FIIs held the highest stake of 19.15 % in the Banking sector followed by Finance and Information Technology of 17.44 % and 16.00 % respectively. The total percentage of shares held by FIIs across different sectors was 10.62 % of the total shares of the companies listed on NSE as at end March 2008 and 9.94 % at the end of June 2008.

Table 8-4: FII Share in different sectors of companies listed on NSE

Sectors	End of March 2007	End of March 2008	End of June 2008
	Percentage Share of Foreign institutional Investors		
Banks	18.41	19.15	17.10
Engineering	11.45	10.63	9.24
Finance	18.18	17.44	15.83
FMCG	11.91	14.07	13.46
Information Technology	14.53	16.00	16.30
Infrastructure	7.15	8.86	8.16
Manufacturing	9.57	9.46	8.51
Media & Entertainment	15.20	11.71	11.08
Petrochemicals	5.83	4.73	5.38
Pharmaceuticals	11.17	10.69	10.30
Services	13.09	10.70	10.89
Telecommunication	11.17	9.12	9.18
Miscellaneous	8.19	9.30	9.94
Total stake of FIIs in all the Sectors	**10.78**	**10.62**	**9.94**

Source : NSE

The most commonly used indicator of stock market development is the size of the market, measured by Market Capitalisation ratio. Market Capitalisation ratio is the value of listed shares on the country's exchanges divided by GDP of the country. In the year 2007-08, market capitalisation ratio of the FIIs (Market capitalisation of FII holdings / GDP) on NSE was 15.08 %. The share of FIIs market capitalisation to the total market capitalization of NSE at end March 2008 was 14.66 %.

	2006-07	2007-08
Market Capitalisation Ratio	13.14%	15.08%
Market Capitalisation of FII holdings (Rs. Million)	5,421,606	7,121,181
GDP (Rs. Million)	41,257,250	47,234,000
Market Capitalisation of FIIs holding to Total Market Capitalisation of NSE	16.10%	14.66%
Market Capitalisation- FII holding (Rs.million)	5,421,606	7,121,181
Market Capitalisation- Total of NSE (in Rs. Million)	33,673,500	48,581,217

Source : NSE, Central Statistical Organisation

Knowledge Initiatives

Several initiatives have been taken over the last few years with a view to develop the skills of market intermediaries, educate the investors and promote high quality research in the securities market. In order to further improve the skills and widen the knowledge base of people involved in the securities market, SEBI has set up the National Institute of Securities Markets (NISM). NISM would design and implement the entire gamut of educational initiatives, including education, training, certification, research and consultancy in the area of securities market and allied subjects for securities market professionals in India and neighboring countries.

Quality Intermediation

In some of the developed and developing markets, there is a system of testing and certification for persons joining market intermediaries. This ensures that these personnel have a minimum required knowledge about the market and the existing regulations. The benefits of this system are wide spread. While the intermediaries are assured of qualified staff, the employees get an opportunity to improve their career prospects. This in turn instills confidence in the investors to be associated with the securities market.

The formal educational or training programme on securities markets is not adequate to cover their areas of operations. For instance, no academic course teaches how to maintain depository accounts or to sell mutual fund products, issue contract notes or clear and settle trades on a stock exchange. As a result, a need for certification was being increasingly felt by the regulators as well as by the securities industry.

NSE's Certification in Financial Markets [NCFM]

National Stock Exchange's Certification in Financial Markets (NCFM), a testing and certification mechanism, has become extremely popular and is sought after by the candidates as well as employers due to its unique on-line testing and certification programme. It offers all the certifications mandated by SEBI, NSDL, AMFI, FIMMDA and NSE itself. The entire process from generation of question paper, testing, assessing, scores reporting and certifying is fully automated- there is absolutely no human intervention. It allows tremendous flexibility in terms of testing centres, dates and timing by providing easy accessibility and convenience to candidates as they can be tested at any time and from any location. The purpose is to test the practical knowledge and skills that are required to operate in the financial markets, in a very secure and unbiased manner.

NCFM offers a comprehensive range of modules covering many different areas in finance. NCFM currently tests expertise in the modules mentioned below in Table 9-1.

During the year 2008-09, NCFM introduced the Derivative Market (Dealers) Module Test in Gujarati language and Hindi Language and launched various new modules. The '*FEDAI-NSE Currency Futures (Basic) Module*' was launched in September 2008 to equip the dealers, investors, students, participants etc. with knowledge on the Currency Futures markets and products. On January 7, 2009 the module on '*Mutual Funds: A Beginners Module*' was launched with a view to educate and create awareness about the role and function of mutual funds. On February 2, 2009 NCFM certification on the module on '*Option Trading Strategies*' was introduced.

Table 9-1: NCFM Module Test Details

Sr. No.	Name of Module	Fees (Rs.)	Test Duration (in minutes)	No. of Questions	Maximum Marks	Pass Marks (%)	Certificate Validity (in years)
1	Financial Markets: A Beginners' Module	750	60	50	100	50	5
2	Mutual Funds : A Beginners' Module	750	60	50	100	50	5
3	Securities Market (Basic) Module	1500	105	60	100	60	5
4	Capital Market (Dealers) Module	1500	105	60	100	50	5
5	Derivatives Market (Dealers) Module	1500	120	60	100	60	3
6	FIMMDA-NSE Debt Market (Basic) Module	1500	120	60	100	60	5
7	NSDL–Depository Operations Module	1500	75	60	100	60 #	5
8	Commodities Market Module	1800	120	60	100	50	3
9	AMFI-Mutual Fund (Basic) Module	1000	90	62	100	50	No limit
10	AMFI-Mutual Fund (Advisors) Module	1000	120	72	100	50	5
11	Surveillance in Stock Exchanges Module	1500	120	50	100	60	5
12	Corporate Governance Module	1500	90	100	100	60	5
13	Compliance Officers (Brokers) Module	1500	120	60	100	60	5
14	Compliance Officers (Corporates) Module	1500	120	60	100	60	5
15	Information Security Auditors Module (Part-1)	2250	120	90	100	60	2
	Information Security Auditors Module (Part-2)	2250	120	90	100	60	
16	FPSB India Exam 1 to 4*	1500 per exam	120	75	140	60	NA
17	FEDAI-NSE Currency Futures (Basic) Module	1500	120	60	100	60	3
18	Options Trading Strategies Module	1500	120	60	100	60	5

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

* Modules of Financial Planning Standards Board India (Certified Financial Planner Certification) i.e. (i) Risk Analysis & Insurance Planning (ii) Retirement Planning & Employee Benefits (iii) Investment Planning and (iv) Tax Planning & Estate Planning. The fees for FPSB Modules 1-4 would be revised to Rs. 2000/- per exam from test date April 1, 2009 onwards.

The curriculum for each of the module (except FPSB India Exam 1 to 4) is available on our website: www.nseindia.com > NCFM > Curriculum & Study Material.

Through a system of certification, it can be ensured that intermediation is carried out by trained personnel. This would induce investors to use their services. Industry/SROs/Regulators have made a modest beginning, but adequate attention is not given to this dimension of the market. Though NCFM has been offering a wide range of modules, there is still scope to offer such certifications for each category of intermediary/activity. SEBI also specified certification as a mandatory requirement for all operational level employees for all types of intermediaries. Thus, it is required that all new employees joining the intermediaries and all intermediaries joining the market, should be certified. The employees should also be required to update their skills and expertise by seeking certification at intervals of five years. There should be an arrangement to maintain a database of certified professionals and enforce a code of conduct for them so as to enable prospective employers access the database to meet their personnel requirements. This would enhance the knowledge and skill of the intermediaries (including regulators and SROs), who, in turn, can educate and guide the investors in securities and issuers of securities.

CBSE – NSE joint certification in Financial Markets

CBSE and NSE introduced a joint certification in Financial Markets for std. XI and XII. The course, titled "Financial Markets Management" had been introduced by CBSE for academic year 2007 - 2008. Students can opt for this course instead of Science, Arts, Commerce etc. The new course comprises of various subjects, such as Languages, Economics, Business Studies, Accounting for Business etc. Besides these, two financial market related subjects, "Introduction to Financial Markets – I" and "Introduction to Financial Markets – II" will be taught in Std. XI and XII respectively. Students opting for the course would be required to take the NCFM on-line tests in "Financial Markets : A Beginners Module" in Std. XI and both "Capital Markets (Dealers) Module and Derivatives Markets (Dealers) Module", in Std. XII.

The course is in its second year and over 1500 students are enrolled for the course. This is the first such attempt to introduce financial literacy in a formal way in schools.

NSE Blackboard Series

To create awareness of the NSE & CBSE Financial Management Course initiative for the CBSE XI & XII students and reinforce the need and importance of such an initiative, a unique series featuring the details of the NSE & CBSE Financial Management course initiative is broadcasted on CNBC TV18 channel twice a week.

Research Initiatives

Knowledge management is very important in today's competitive world. It acts as a tool which helps to acquire the cutting edge in a globalised financial market. The regulators and SROs have been actively promoting academicians and market participants to carry out research about various topics in the various segments of securities market.

NSE Research Initiative

NSE administers a scheme called the NSE Research Initiative. This aims at improving the market efficiency further. The initiative fosters research with a purpose to support and facilitate stock exchanges to design market microstructure, to help participants frame their strategies, assist regulators to frame regulations, and in general to broaden the knowledge horizon of the securities market. The initiative has received tremendous response from the academics as well as the market participants from within and outside the country. The studies completed under the research initiative are presented in Table 9-2. During the year 2008, five research papers were completed under the NSE Research Initiative. The completed papers are available on the NSE website www.nseindia.com.

Data Dissemination

NSE compiles, maintains and disseminates high quality data to market participants, researchers and policy-makers. This acts as a valuable input for formulating strategy, doing research and making policies. NSE has been maintaining the historical database of all the details of every order placed on its trading system and every trade executed. This data is disseminated through monthly CD/DVDs releases which are priced at a nominal rate. The following information is available on CDs/DVDs:

- Summary information about each security's high price, low price, closing price and last traded price, turnover (value and volume), and number of trades for each trading day.
- Database of stock market indices computed by IISL. Both intra day and end of day information is available for Nifty, CNX Midcap and Defty.
- Snapshots of limit order book of NSE at different points during a day.
- Database of circulars issued during the month. Every development in the market in terms of market design is documented in these circulars.

Besides, NSE's web-site itself is a storehouse of information.

Table 9-2: Studies under the NSE Research Initiative

SL. No.	Title of Study
Completed Papers	
1	Econometric Estimation of Systematic Risk of S&P CNX Nifty Constituents
2	Stock Market Development and its Impact on the Financing Pattern of the Indian Corporate Sector
3	Efficiency of the Market for Small Stocks
4	Determinants of Financial Performance of Indian Corporate Sector in the Post-Liberalization Era: An Exploratory Study
5	Should pension funds invest in equities? An analysis of risk-return tradeoff and asset allocation decisions
6	Changes in liquidity following exposure to foreign shareholders: The effect of foreign listings, inclusion in country funds and issues of American Depositary Receipts
7	Is the Spread Between E/P Ratio and Interest Rate Informative for Future Movement of Indian Stock Market?
8	Merger Announcements and Insider Trading Activity in India: An Empirical Investigation
9	Achieving an Individual Investor Friendly System using the power of the Internet
10	Improved Techniques for using Monte Carlo in VaR estimation
11	Short selling and its Regulation in India in International Perspective
12	Empirical investigation of multi-factor asset pricing models using Artificial Neural Network
13	Idiosyncratic Factors in Pricing Sovereign Bonds: An Analysis of the Government of India Bond Market
14	The Extreme Value Volatility Estimators and Their Empirical Performance in Indian Capital Markets
15	Equity Market Interlinkages: Transmission of Volatility - A Case Of US and India
16	Institutional Investors and Corporate Governance in India
17	Dividend policy of Indian Corporate Firms : An Analysis of Trends & Determinants
18	Market Microstructure Effects of Transparency of Indian Banks
19	Futures Trading, Information and Spot Price Volatility of NSE-50 Index Futures Contract
20	Measuring productive efficiency of stock exchanges using price adjustment coefficients
21	Do Futures and Options trading increase stock market volatility?
22	Section switching stock market price effect in the Indian capital market and the policy implications thereof
23	Study of Common Stochastic Trend and Co-integration in the Emerging Markets - A case study India, Singapore and Taiwan
24	Market Discipline in the Indian Banking Sector: An Empirical Exploration
25	Conditional CAPM and Cross sectional returns - A study on Indian Securities Market
26	Evaluating index fund implementation in India
27	Measuring Volumes in the Indian Financial Markets Some Terminological and Conceptual Issues
28	Corporate Social Responsibility Initiatives by NSE NIFTY Companies - Content, Implementation Strategies & Impact.
29	Measures for Improving Common Investor Confidence in Indian Primary Market : A Survey
30	Informational Content of Trading Volume And Open Interest – An Empirical Study of Stock Options Market In India
31	An analysis of the Dynamic Relationships Between South Asian and Developed Equity Markets
32	Corporate Governance and Market reactions
33	Insider Ownership, Corporate Governance and Corporate Performance
34	Improving Index Fund Implementation in India
35	Seasoned Capital Offerings: Earnings Management and Long-Run Operating Performance of Indian Firms
36	Volatility Spillovers Across Stock, Call Money And Foreign Exchange Markets
37	Understanding the Microstructure in Indian Markets
38	Price and Volume Effects of S&P CNX Nifty Index Reorganization
39	Lead-Lag relationship between Equities and Stock Index Futures Market and its variation around Information Release: Empirical Evidence from India
40	On The New Transformation-Based Approach To Measuring Value-At-Risk: An Application To Forex Market In India
41	Optimal Hedge Ratio and Hedging Effectiveness of Stock Index Futures : Evidence from India
42	Evaluating Corporate Governance Risk: A Fuzzy logic approach
43	Do the S&P CNX Nifty Index and Nifty Futures Really Lead/Lag?Error Correction Model: A Cointegration Approach
44	Under-Pricing and long run performance of Initial Public Offerings in Indian Stock Market
45	Price & liquidity effects of stock split: An Empirical evidence from Indian stock market
46	Risk Return Dynamics of Derivative Based Investment Strategies.
47	Pricing of Options on Defty
48	Price Limits Are they Worth the Price?
49	Volatility Persistence and the Feedback trading Hypothesis: Evidence from Indian Market

Investor Awareness and Education

NSE has been carrying out investor awareness and education seminars on a regular basis in various centres across the country. Informative brochures and booklets have been prepared for educating investors which are distributed free of cost at the seminars. 415 Investor Awareness Programmes were conducted during the year 2008.

Investor awareness efforts for Currency Derivatives

NSE is the first Exchange to launch trading in currency futures in India. Trading in INRUSD currency futures contract started on 29th August 2008 at NSE. Trading in the first day itself was very lively with nearly 70,000 contracts being traded.

There is already an active OTC market for forwards with an average daily turnover of over USD 34 billion in India. Now for the first time, it would be possible to trade on the currency futures on an Exchange platform. With electronic trading and efficient risk management systems, Exchange traded currency future would benefit the universe of participants including corporate and individual investors, and would provides them new opportunities in this market segment.

To spread awareness on this new product, more than 220 interactive sessions have been organized in association with its members, trade associations and professional groups at major towns across the country. The participants were explained about the features of Exchange traded Currency Futures, the trading and settlement function at the Exchange and also its usage.

Some of the highlights of the Awareness program on Currency Derivatives include

- Roadshows with major trade promotion councils, export promotion councils, Chambers of Commerce and professional bodies.
- Programs at more than 68 locations across India.
- Tie up with NSE members to promote awareness among market participants.
- Faculty comprising of consultants and experts in Forex market.

Investor Protection Fund

Despite the various efforts taken by the regulators and exchange, some problems do arise. A cushion in the form of Investor Protection Funds (IPFs) is set up by the stock exchanges. The purpose of the IPF is to take care of investor claims, which may arise out of non-settlement of obligations by the trading members. The IPF is also used to settle claims of such investors whose trading member has been declared a defaulter. Further, the stock exchanges have been allowed to utilise interest income earned on IPF for investor education, awareness and research.

The Companies Act, 1956 also provides for an Investor Education and Protection Fund (IEPF) to protect the interests of small shareholders. The fund is utilised for conducting direct education programmes, organising seminars, promoting research activities and providing legal assistance to genuine investor litigants through investor grievances forums. The fund is managed by a committee comprising both government and non-government members. The IEPF is constituted from grants received from the government and from the unclaimed dividends, share application money, matured deposits and unclaimed debentures of the corporates.

IEPF provides financial assistance to any organisation/entity/person with a viable project proposal on investors' education and protection. The eligible entities are those registered under the Societies Registration Act or formed as Trusts or incorporated Companies. They should be in existence for a minimum period of 2 years employing a minimum of 20 members and be governed by properly established rules, regulations and or by-laws prior to its date of application for registration. In addition, they should not be a profit making entity. The limit for each entity for assistance would be subject to 5% of the budget of IEPF during that financial year and not exceeding 50% of the amount to be spent on the proposed programme/activity.

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