NSE

NIFTY 15

Volume XIV 2011

ISMR

Indian Securities Market A Review

May prosperity always bloom

A Review

Indian Securities Market

Volume XIV 2011

This publication reviews the developments in the securities market in India

Online: www.nseindia.com

NATIONAL STOCK EXCHANGE OF INDIA LIMITED

Indian Securities Market
A Review

Orders for this issue and the back issues may be sent to:

Corporate Communication
National Stock Exchange of India Limited
Exchange Plaza, Bandra Kurla Complex
Bandra (East), Mumbai 400 051 INDIA

CONTENTS

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

1. Securities Market in India: An Overview

Section-1: Macroeconomic Developments in 2011

Global macroeconomic environment

Since the beginning of 2011, there has been a confluence of two adverse developments, particularly in the advanced economies: (i) a much slower recovery than expected earlier and (ii) an increase in fiscal and financial risks. According to the latest IMF forecast (September 2011), the global output growth is projected to slow down to 4 percent in 2011 from 5 percent growth achieved in 2010, mainly reflecting a sluggish growth in the advanced economies. During the year, the outlook for the developed economies has deteriorated much faster than that of the emerging economies: while the IMF's latest projection for output growth in 2011 fell to 1.6 percent from its earlier projection of 2.5 percent (January 2011) for the advanced economies, the projection declined marginally from 6.5 percent to 6.4 percent for the emerging economies.

With the structural weaknesses still unresolved, the world economy was hit by a number of shocks in 2011. Japan was struck by a devastating earthquake and tsunami, and unrest spread in some oil-producing countries. At the same time, the growth in private demand which was expected to substitute slackening public demand in the US got stalled. The US economy has been struggling with sluggish growth and protracted unemployment. Downside risks have increased with fiscal uncertainty, housing market weakness, renewed financial stress and subdued business and consumer sentiment.

On August 5, 2011, S&P lowered the AAA long-term sovereign rating that the US enjoyed for 70 years to AA +. Earlier, S&P had downgraded its outlook on the U.S. credit rating to "negative," from "stable", citing the nation's "very large budget deficits and rising government indebtedness". The rationale for S&P's rating downgrade is two-fold. One, the fiscal consolidation plan that US Congress agreed on August 02, 2011 fell short of what S&P considered necessary to stabilize the government's medium-term debt dynamics. Second, according to the S&P, the effectiveness, stability, and predictability of American policymaking and political institutions have weakened, as manifested in the political brinkmanship in the months preceding S&P's rating action.

In Europe, the scene has been no better. After four years of financial crisis, many European countries have been left with high debt burdens and sharply higher funding needs than earlier. Lower tax revenue, weaker growth prospects, and large scale support for ailing financial institutions have significantly strained public finances in these countries. These challenges have exacerbated the legacy of fiscal irresponsibility, as some governments lived beyond their means during good times. Policy makers in these countries have not yet been able to gather sufficient political support for medium term fiscal adjustment and growth-enhancing reforms. Markets have reacted to these developments with higher sovereign risk premiums and successive rating downgrades or negative outlooks.The problems of debt sustainability first appeared in the periphery of the euro area, such as Greece, Ireland and Portugal, which suffered downgrades in sovereign rating, but later spread to larger countries such as Italy and Spain. Rising yields on government bonds issued by countries on the periphery of the euro area have eroded investor confidence and thereby have further driven up funding costs. As a result, public debt has become more difficult to finance.

Many of the countries in the euro area have historically relied on banks to finance their fiscal deficits. Therefore, sovereign strains have spilled over to the banking system in the euro area, leading to a rise in credit risks. Although some repairs have occurred to bank balance sheets, banks remain vulnerable to both economic and funding shocks.

As regards the emerging and developing economies, the pace of economic performance varied considerably across regions, although at an overall level, their recovery remained significantly stronger than that of the advanced economies. In the past few months, however, the growth in EMEs is also moderating on account of sluggish growth in advanced economies, which has slowed down the foreign demand for the EMEs' goods and services. EMEs' growth has also been affected by the impact of monetary tightening to contain inflation. In view of the slowing down of their economies, Brazil, Indonesia, Israel and Thailand cut their policy rates, while China cut its reserve requirements. As global investors turned from risk seekers to risk averters against the backdrop of financial stress in the euro area, the EME currencies have also come under pressure, although the degree of depreciation has varied across countries.

Macroeconomic Developments in India

Recent global developments have considerably undermined the prospects of a self-sustaining recovery in India, as in other parts of the world. The growing linkages and integration of the Indian economy and its financial system with the world have meant that India has become more vulnerable to external developments. The sovereign debt crisis and prolonged slowdown in the Euro area and the US have begun to have their impact on India's growth prospects, the resilience of the Indian economy notwithstanding.

India's GDP growth fell for the sixth consecutive quarter in Q2 of 2011-12 to 6.9 percent from its peak of 9.4 percent in Q4 of 2009-10. Overall, during the first half of 2011-12, GDP growth slowed down to 7.3 percent from 8.6 percent in the corresponding period last year; while the agricultural growth fell from 3.7 percent to 3.6 percent, industrial growth fell from 8.1 percent to 4.2 percent. The decline in industrial activities has been a matter of major concern. In October 2011, the index of industrial production (IIP) fell by 5.1 percent on a year-on-year basis, mainly reflecting contraction in manufacturing and mining activities. The sharp decline in the production of capital goods in October is indicative of the slowdown in investment demand. The deceleration in economic activity reflects the combined impact of several factors: the uncertain global environment, the cumulative impact of past monetary policy tightening and domestic policy uncertainties.

During the year, inflation remained stubbornly high at around 9-10 percent and was fairly broad-based. The rise in inflation started with food and later got generalized. The food inflation, which has remained persistently high, has become a major cause of worry. With the inflation remaining beyond the comfort levels of RBI, the RBI continued to tighten its monetary policy through the year to arrest inflation, even in the face of a slowdown in economic growth. It is only toward the end of October that food inflation began to subside, although the overall inflation still remains high. Meanwhile interest rates, almost across the spectrum in the economy, have risen. The yield on 10-year G-sec, for example, has risen from 7.9 percent in January 2011 to 8.3 percent in December 2011.

The slowdown in economic growth has had its impact on fiscal management too. The central government's fiscal deficit rose during the April-October period of 2011-12, due to both a decline in revenue receipts and an increase in expenditure, particularly on subsidies. The fiscal deficit at 74.4 percent of the budgeted estimate in the first seven months of 2011-12 was significantly higher than 42.6 percent in the corresponding period last year.

The adverse global developments are reflected in the external sector transactions in India. In view of weakening global demand, both the IMF and the WTO have projected a lower growth in world trade volume for 2011. In line with the global trend, India's international trade volumes have begun to be affected. The growth of India's merchandise exports decelerated sharply to 11 percent on year-on-year basis in October, 2011 from an average of 40.6 percent in the first half of 2011-12. The continued high oil prices and increase in imports of bullion, machinery and electronics by India have tended to offset the recent buoyant export growth, resulting in widening of the current account deficit (CAD). The problem has been accentuated by a flight of capital to safe havens over concerns relating to European debt, lack of political consensus on tackling the rising sovereign debt and poorer growth prospects in advanced economies. This has been the case not just in India, but in other emerging markets too. As a result, currencies of emerging markets have generally depreciated, although those emerging markets that have a current account deficit like India, Turkey and South Africa have depreciated more than those with a current account surplus. The Indian rupee has depreciated significantly: as on December 15, 2011, the rupee had depreciated by about 17 percent against the US dollar over its level on August 5, 2011, the day on which the US debt downgrade happened. There has also been some rise in the net international liabilities of India over the year. These external sector developments such as, depreciation of the Indian rupee, widening CAD and rising net international liability position, though not a cause for undue immediate concern, have enhanced the vulnerabilities of India's external sector.

Against this backdrop, several policy measures have been taken: limits on investment in government and corporate debt instruments by foreign investors were increased, ceilings on interest rates payable on non-resident deposits were raised, and the all-in-cost ceiling for ECBs was increased. In addition, a series of administrative measures that discourage speculative behavior were also initiated.

The effect of the global slowdown has been more pronounced on India's financial markets–particularly securities market—than on the real economy. In the primary market, the resource mobilized through public and rights issues has fallen to ₹163,420 million in the first half of 2011-12 from ₹187,413 million in the corresponding period of the previous year. The secondary market has been affected too. The market-cap to GDP ratio has fallen to 64.26 percent in September 2011 from 88.36 percent a year ago. The average daily market turnover during the first half of 2011-12 has fallen 19 percent below the level prevailing in the first half of 2010-11. Net FII investment in debt and equity was negative in three out the first six months of FY 2012. Finally, the Indian financial markets have experienced higher than normal levels of volatility and uncertainty over the year. In the equity market, the rise in volatility has been evidenced by an increase in the volatility[1] of the benchmark index Nifty 50, from 0.8 percent in September 2010 to 1.4 percent in September 2011.

One silver lining emerging out of the crises of recent years is that although the world is in the midst of the worst financial catastrophe in recent decades characterized by massive credit failures, bank and brokerage meltdowns, and government bailouts, the stock exchanges around the world continued to provide transparency, price discovery, certainty of execution and central clearing–without interruption, throughout the crisis. The crisis has validated the critical role of regulated exchange markets.

Section-2: Structure and Trends of the Indian Securities Markets in 2010-2011

In this section, the basic structure of the Indian securities market as it exists now, together with the broad trends in different segments of the market in 2010-11 have been outlined.

The securities market has essentially three categories of participants—the issuer of the securities, the investors in the securities, and the intermediaries. The issuers are the borrowers or deficit savers, who issue securities to raise funds. The investors, who are surplus savers, deploy their savings by subscribing to these securities. The intermediaries are the agents who match the needs of the users and the suppliers of funds for a commission. These intermediaries function to help both the issuers and the investors to achieve their respective goals. There are a large variety and number of intermediaries providing various services in the Indian securities market (Table 1-1). This process of mobilizing the resources is carried out under the supervision and overview of the regulators. The regulators develop fair market practices and regulate the conduct of the 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, as well as the supply of quality securities and non-manipulated demand for them in the market.

[1] Volatility is calculated as the standard deviation of the Natural Log of the returns of the indices for the respective period

Table 1-1: Market Participants in the Indian Securities Market

Market Participants	FY 2010	FY 2011	As on Sep 30, 2011
Securities Appellate Tribunal (SAT)	**1**	**1**	1
Regulators*	4	4	4
Depositories	2	2	2
Stock Exchanges			
With Equities Trading	19	19	19
With Debt Market Segment	2	2	2
With Derivative Trading	2	2	2
With Currency Derivatives	4	4	4
Brokers (Cash Segment) **	9,772	10,203	10,248
Corporate Brokers (Cash Segment)	4,197	4,774	4,833
Brokers (Equity Derivatives)	1,705	2,111	2,240
Brokers (Currency Derivatives)	1,459	2,008	2,083
Sub-brokers	75,378	83,808	79,797
FIIs	1,713	1,722	1,745
Portfolio Managers	243	267	248
Custodians	17	17	19
Registrars to an issue & Share Transfer Agents	74	73	73
Primary Dealers	20	21	21
Merchant Bankers	164	192	192
Bankers to an Issue	48	55	56
Debenture Trustees	30	29	30
Underwriters	5	3	3
Venture Capital Funds	158	184	197
Foreign Venture Capital Investors	143	153	164
Mutual Funds	47	51	51
Collective Investment Schemes	1	1	1

** DCA, DEA, RBI, and SEBI*
***Including brokers on Mangalore SE (58), HSE (303), Magadh SE (197), and SKSE (410)*
Source: SEBI, RBI
Note: As on October 31, 2011, there are eight standalone PDs and 13 banks authorized to undertake PD business departmentally

Market Segments

The securities market has two interdependent and inseparable segments, namely, the new issues (primary) market and the stock (secondary) market. The primary market provides the channel for the creation and sale of new securities, while the secondary market deals in the securities that were issued previously. 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 a public issue or through a private placement route. If anybody can subscribe for the issue, it is a public issue; if the issue is made available only to a select group of people, it is known as private placement. There are two major types of issuers of securities—corporate entities, who issue mainly debt and equity instruments, and the government (central as well as state), which issues debt securities (dated securities and treasury bills).

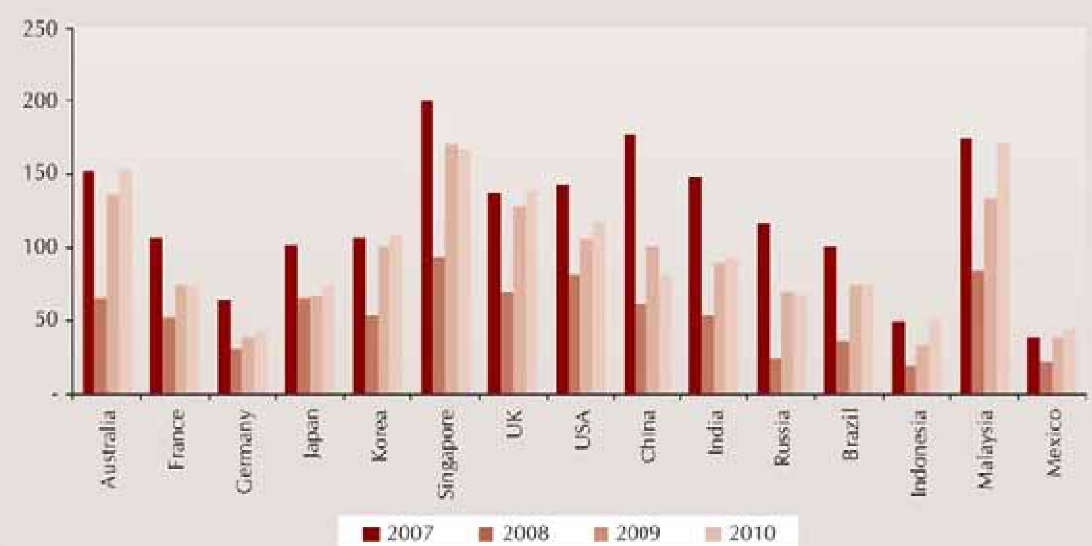
The secondary market enables participants who hold securities to adjust their holdings in response to changes in their assessment of risks and returns. Once new securities are issued in the primary market, they are traded in the stock (secondary) market. The secondary market operates through two mediums, namely, the over-the-counter (OTC) market and the exchange-traded market. The OTC markets are informal markets where trades are negotiated. Most of the trades in government securities take place in the OTC market. All the spot trades where securities are traded for immediate delivery and payment occur 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 the Futures and Options market. Presently, only two exchanges in India—the National Stock Exchange of India Ltd. (NSE) and the Bombay Stock Exchange (BSE)—provide trading in Futures and Options.

International Scenario

Global integration—the widening and intensifying of links—between high-income and developing countries has accelerated over the years. Over the past few years, the financial markets have become increasingly global. The Indian market has gained from foreign inflows through the investment of Foreign Institutional Investors (FIIs). Following the implementation of reforms in the securities industry in the past few years, Indian stock markets have stood out in the world ranking. As may be seen from Table 1-2, India posted a turnover ratio of 75.6 percent, which was comparable to that of the other developed markets. As per Standard and Poor's Fact Book 2011, India ranked 7th in terms of market capitalization (11th in 2009), 10th in terms of total value traded in stock exchanges, and 22nd in terms of turnover ratio, as of December 2010.

The stock markets worldwide have grown in size as well as depth over the years. As can be observed from Table 1-2, the turnover of all the markets taken together have reduced from US $ 80.42 trillion in 2009 to US $ 63.98 trillion in 2010. Significantly, the US alone accounted for about 47.6 percent of the worldwide turnover in 2010. Despite having a large number of companies listed on its exchanges, India accounted for a meager 1.65 percent of the total world turnover in 2010. The market capitalization of all the listed companies taken together across all the markets stood at US $ 54.54 trillion in 2010 (US $ 48.71 trillion in 2009). The share of the US in worldwide market capitalization increased from 30.95 percent at the end of 2009 to 31.42 percent at the end of 2010, while the Indian listed companies accounted for 2.96 percent of the total market capitalization at the end of 2010. The stock market capitalization for some developed and emerging countries is shown in Chart 1-1.

Chart 1-1: Stock Market Capitalization (as a percentage of GDP)



Source : S&P Global Stock Market Factbook, 2011 and World Development Indicators, World Bank

Table 1-2: International Comparison of Global Stock Markets

International Comparison	Market Capitalisation (US $ mn)			Turnover (US $ mn)			Turnover Ratio (in %)			Market Capitalisation Ratio (in %)			No. of listed Companies		
Markets	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**	**2008**	**2009**	**2010**
Developed Market	**26,533,854**	**34,907,166**	**39,309,690**	**67,795,950**	**64,458,380**	**50,306,541**							**26,375**	**24,635**	**27,024**
Australia	675,619	1,258,456	1,454,547	1,017,705	761,820	1,221,900	103.10	78.80	79.40	65.00	136.07	153.14	1,924	1,882	1,913
France	1,492,327	1,972,040	1,926,488	3,265,494	1,365,807	828,032	152.40	78.80	42.50	52.28	74.43	75.25	966	941	901
Germany	1,107,957	1,297,568	1,429,707	3,105,288	1,288,867	1,405,037	191.50	107.20	103.00	30.31	38.77	43.20	638	601	571
Hongkong	1,328,837	2,291,578	1,079,640	1,626,143	1,489,635	1,597,543	81.80	82.30	63.90	617.04	1,064.09	481.00	1,017	1,308	1,396
Japan	3,220,485	3,377,892	4,099,591	5,879,439	4,192,624	4,280,423	153.20	128.80	114.50	65.90	66.66	74.57	3,299	3,208	3,553
Korea	494,631	836,462	1,089,217	1,465,999	1,581,487	1,626,604	181.20	237.60	168.90	53.11	100.47	107.37	1,798	1,778	1,781
Singapore	180,021	310,766	370,091	270,909	252,266	282,142	101.30	102.80	82.90	93.11	170.53	166.18	455	459	461
UK	1,851,954	2,796,444	3,107,038	6,486,959	3,402,496	3,006,680	226.90	146.40	101.90	69.55	128.60	138.33	2,415	2,179	2,056
USA	11,737,646	15,077,286	17,138,978	36,467,431	46,735,935	30,454,798	232.30	348.60	189.10	81.69	105.76	117.53	5,603	4,401	4,279
Emerging Markets	**9,227,306**	**13,806,558**	**15,231,251**	**12,720,872**	**15,959,679**	**13,668,167**	–	–	–	–	–	–	**22,795**	**24,033**	**21,631**
China	2,793,613	5,007,646	4,762,837	5,470,529	8,956,188	8,029,969	121.30	229.60	164.40	61.63	100.46	81.02	1,604	1,700	2,063
India	645,478	1,179,235	1,615,860	1,049,748	1,088,889	1,056,808	85.20	119.30	75.60	53.16	90.01	93.46	4,921	4,955	4,987
Russia	397,183	861,424	1,004,525	562,230	682,540	799,688	75.00	108.50	85.70	23.82	69.99	67.88	314	279	345
Brazil	589,384	1,167,335	1,545,566	727,793	649,187	901,105	74.30	73.90	66.40	35.97	74.26	74.03	432	377	373
Indonesia	98,761	178,191	360,388	110,678	115,310	129,546	71.30	83.30	48.10	19.35	32.98	51.01	396	398	420
Malaysia	187,066	255,952	410,534	85,214	72,970	90,198	33.20	32.90	27.10	84.58	133.59	172.64	977	953	957
Mexico	232,581	340,565	454,345	108,202	77,059	108,530	34.30	26.90	27.30	21.34	38.93	43.70	125	125	130
World Total	**34,887,452**	**48,713,724**	**54,540,941**	**80,516,822**	**80,418,059**	**63,974,708**	–	–	–	–	–	–	48,936	48,668	48,655
USA as % of World	33.64	30.95	31.42	45.29	58.12	47.60	–	–	–	–	–	–	11.45	9.04	8.79
India as % of World	1.85	2.42	2.96	1.30	1.35	1.65	–	–	–	–	–	–	10.06	10.18	10.25

Note
Listed companies in India pertain to BSE
Market Capitalisation ratio is computed as a percentage of GDP.
Turnover Ratio is calculated by dividing the total 2011 US$ value traded by average US$ market capitalisation for preceding year and the current year under consideration
Source:S&P Global Stock Market Factbook, 2011 and World Development Indicators, World Bank

Table 1-3: Select Stock Market Indicators

Markets	Market Capitalisation as % of GDP			Turnover Ratio (%)			Listed Domestic Companies		
	2007	2008	2009	2008	2009	2010	2008	2009	2010
High Income	**123.8**	**62.9**	**89.9**	**180.5**	**187.1**	**128.5**	**29,505**	**31,198**	**29,574**
Middle Income	**117**	**49.5**	**73.2**	**78.2**	**213.8**	**101.1**	**15,300**	**9,819**	**16,778**
Low & Middle Income	**113.9**	**48.9**	**72.6**	**77.8**	**213.8**	**100.8**	**16,834**	**16,120**	**17,497**
East Asia & Pacific	165.1	58.0	91.0	112.0	229.5	146.0	3,868	3962	4,758
Europe & Central Asia	77.3	44.4	50.8	68.8	68.0	91.2	3,882	3610	2,963
Latin America & Caribbean	71.4	31.9	52.9	47.0	46.1	46.1	1,302	1417	1,457
Middle East & N. Africa	56.1	55.9	38.0	28.7	28.7	27.7	772	717	1,007
South Asia	133.4	47.0	73.3	89.3	88.9	73.5	6,098	6123	6,364
Sub-Saharan Africa	149.0	148.5	154.1	29.1	76.5	37.1	912	820	948
India	**154.6**	**55.7**	**85.6**	**85.2**	**116.3**	**75.6**	**4,921**	**4,946**	**4,987**
World	**121.3**	**59.2**	**85.2**	**--***	**--***	**122.0**	**--***	**--***	**47,071**

Source: World Development Indicators 2010, World Bank.
** Aggregates not preserved as data for high-income economies are not available for 2008*

According to the *World Development Indicators 2010, World Bank*, there has been an increase in the market capitalization as a percentage of Gross Domestic Product (GDP) in some of the major groups of countries, as is evident from Table 1-3. The increase, however, has not been uniform across the countries. The market capitalization as a percentage of GDP was the highest at 89.9 percent for the high-income countries at the end of 2009 and was the lowest for the low- and middle-income countries (at 72.6 percent). The market capitalization as a percentage of GDP in India stood at 85.6 percent at the end of 2009. The turnover ratio, which is a measure of liquidity, was 128.5 percent for the high-income countries and 100.8 percent for the low-income countries. The total number of listed companies stood at 29,574 for the high-income countries, 16,778 for the middle-income countries, and 17,497 for the low-income countries at the end of 2010.

Shareholding pattern

In the interest of transparency, the issuers are required to disclose their shareholding pattern on a quarterly basis. Table 1-4 presents the sector-wise shareholding pattern of the companies listed on the NSE at the end of September 2011. On average, the promoters held 56.6 percent of the total shares, while the non-promoters' holding was 43.4 percent. Individuals held 12.43 percent, while institutional holdings (FIIs, MFs, VCFs—Indian and Foreign) accounted for 18.8 percent.

In 2009, the Securities and Exchange Board of India (SEBI) made it mandatory for the promoters of listed companies to disclose the number of shares that they had pledged. Table 1-5 shows that 9.48 percent of the total shares held by promoters were pledged as of September 2011.

Table 1-4: Shareholding Pattern at the end of September 2011 for companies listed on the NSE

Sectors	PROMOTERS		PUBLIC								Shares held by Custodians and against which Depository Receipts have been issued
			INSTITUTIONAL					NON-INSTITUTIONAL			
	Indian Promoters	Foreign Promoters	Financial Insitutions/ Banks/Central Government/ State Government/ Insurance Companies	Foreign Institutional Investors	Mutual Funds	Venture Capital Funds including Foreign Venture Capital Funds	Any Other	Bodies Corporate	Individuals	Any other	
Banks	43.98%	1.11%	8.72%	18.17%	3.24%	0.00%	0.10%	5.37%	13.57%	1.15%	4.61%
Engineering	36.36%	1.02%	9.86%	9.30%	7.45%	0.02 %	0.26%	10.84%	17.18%	5.30%	0.84%
Finance	42.33%	1.19%	6.12%	19.20%	2.09%	0.00 %	1.58%	7.84%	13.78%	4.87%	0.99%
FMCG	27.79%	2.61%	11.52%	17.00%	7.57%	0.00 %	0.01%	5.84%	11.02%	16.25%	0.37%
Information Technology	37.76%	3.85%	1.09%	17.07%	1.97%	0.00 %	0.00%	5.52%	22.88%	9.59%	0.01%
Infrastructure	69.07%	3.14%	4.93%	7.50%	1.96%	0.00 %	0.00%	3.59%	7.20%	1.98%	0.15%
Manufacturing	47.51%	8.26%	4.39%	9.60%	2.38%	0.00 %	0.24%	6.12%	14.93%	2.89%	3.62%
Media & Entertainment	46.63%	4.68%	1.29%	11.63%	4.18%	0.00 %	0.00%	8.92%	17.43%	2.05%	3.18%
Petrochemicals	60.31%	5.52%	5.27%	6.49%	2.42%	0.00 %	0.03%	9.17%	7.82%	2.42%	0.54%
Pharmaceuticals	44.26%	6.58%	4.17%	10.13%	3.41%	0.00 %	0.43%	7.81%	18.32%	2.70%	2.19%
Services	50.58%	5.42%	7.58%	9.50%	1.70%	0.00 %	0.00%	8.18%	12.07%	2.42%	2.53%
Telecommunication	50.39%	6.92%	5.54%	8.46%	1.83%	0.00 %	0.00%	8.08%	8.96%	8.32%	1.50%
Miscellaneous	50.78%	1.04%	1.71%	13.37%	2.41%	0.00 %	0.00%	9.59%	16.39%	4.15%	0.40%
Number of Shares	166,120,168,949	17,940,136,656	17,313,962,802	33,990,062,518	8,713,598,831	430,473,308	685,488,916	20,476,361,227	40,415,879,107	12,008,036,877	7,116,558,123
% to Total Number of Shares	**51.08%**	**5.52%**	**5.32%**	**10.45%**	**2.68%**	**0.13%**	**0.21%**	**6.30%**	**12.43%**	**3.69%**	**2.19%**

Source: NSE

Table 1-5: Sector-wise Pledged Shares of Promoters of Companies listed on the NSE (as of September 2011)

Company Classification	Indian Promoters	Foreign Promoters	Total Promoters Holding	Shares Pledged	% age of pledged shares
Banks	7,969,940,260	200,454,290	8,170,394,550	7,559,571	0.09%
Engineering	1,116,273,251	31,327,390	1,147,600,641	338,119,205	29.46%
Finance	7,739,938,775	217,816,005	7,957,754,780	267,075,780	3.36%
FMCG	4,693,503,623	440,832,580	5,134,336,203	502,702,812	9.79%
Information Technology	274,724,269	28,043,813	302,768,082	12,823,746	4.24%
Infrastructure	41,952,460,189	1,909,659,968	43,862,120,157	5,397,967,899	12.31%
Manufacturing	64,091,923,421	11,136,933,557	75,228,856,978	7,923,244,541	10.53%
Media & Entertainment	3,405,230,489	341,872,496	3,747,102,985	822,433,530	21.95%
Petrochemicals	15,405,044,439	1,410,154,721	16,815,199,160	189,138,812	1.12%
Pharmaceuticals	3,923,283,584	582,975,936	4,506,259,520	334,465,610	7.42%
Services	4,087,835,924	438,037,146	4,525,873,070	543,112,377	12.00%
Telecommunication	8,280,455,241	1,137,111,011	9,417,566,252	731,411,630	7.77%
Miscellaneous	3,179,555,484	64,917,743	3,244,473,227	384,748,266	11.86%
Total			**184,060,305,605**	**17,454,803,779**	**9.48%**

Source: NSE

Households

According to the RBI data, investments in fixed income instruments accounted for 87.1 percent of the household financial savings during 2010–2011, which had increased in comparison to 85.6 percent in 2009–2010.

In the fiscal year 2010–2011, the household sector invested 47.3 percent of financial savings in deposits, 33.3 percent in insurance/provident funds, 6.5 percent in small savings, and -0.4 percent in the securities market including government securities, units of mutual funds, and other securities (Table 1-6). That is, fixed-income-bearing instruments were the preferred assets of the household sector.

Table 1-6: Savings of Household Sector in Financial Assets (in percent)

Financial Assets	2008-09 R	2009-10 R	2010-11 P
Currency	**12.7**	**9.8**	**13.3**
Fixed income investments	**88.0**	**85.6**	**87.1**
Deposits	60.7	47.2	47.3
Insurance/Provident & Pension Funds	31.1	34.1	33.3
Small Savings	-3.8	4.3	6.5
Securities Market	**-0.3**	**4.8**	**-0.4**
Mutual Funds	-1.4	3.3	-1.8
Government Securities	0.0	0.0	0.0
Other Securities	1.1	1.5	1.4
Total	**100**	**100**	**100**

Source: RBI Annual Report 2010-11
R: Revised
P: Preliminary Estimates
Note: In this context, other securities include the shares and debentures of private corporate businesses and banks, and the bonds of PSUs; Mutual Funds include units of UTI

Primary Market

An aggregate of ₹8,561,863 million (US $ 191,755 million) was raised by the government and the corporate sector in 2010–2011, compared to ₹10,083,446 million (US $ 223,382 million) in 2009–2010 (a decrease of 15.09 percent). Private placement accounted for 90.57 percent of the domestic total resource mobilization by the corporate sector. Resource mobilization through Euro Issues dropped significantly by 40.87 percent to ₹94,410 million (US $ 2,114 million) in 2010–2011. (More details are provided in Chapter 2.)

Secondary Market

Corporate Securities

The exchanges in the country offer screen-based trading system. There were 10,203 trading members registered with SEBI at the end of March 2011 (Table 1-7). The market capitalization has grown over the period, indicating that more companies are using the trading platform of the stock exchange. The market capitalization across India was around ₹ 68,430,493 million (US $ 1,532,598 million) at the end of March 2011. Market capitalization ratio is defined as the market capitalization of stocks divided by the GDP. It is used as a measure that denotes the importance of equity markets relative to the GDP. It is of economic significance since the market is positively correlated with the ability to mobilize capital and diversify risk. The all-India market capitalization ratio decreased to 86.89 percent in 2010–2011 from 94.2 percent in 2009–2010.

The trading volumes on the stock exchanges have been witnessing phenomenal growth over the past few years. Trading volume, which peaked at ₹ 55,168,330 million (US $ 1,222,161 million) in 2009–2010, posted a fall of 15.12 percent to ₹ 46,824,370 million (US $ 1,048,698 million) in 2010–2011. The trading volumes had picked up from 2002–2003 onwards. It stood at ₹ 9,689,098 million (US $ 203,981 million) in 2002–2003, and witnessed a year-on-year increase of 67.29 percent in 2003–2004, standing at ₹ 16,209,326 million (US $ 373,573 million). The upsurge continued for the next few years, and in 2006–2007, the turnover showed an increase of 21.40 percent, reaching ₹ 29,014,715 million (US $ 665,628 million) from ₹ 23,901,030 million (US $ 535,777 million) in 2005–2006.

Government Securities

The trading in non-repo government securities on NSE has been declining considerably since 2004–2005. The aggregate trading volumes in central and state government dated securities on SGL declined from ₹ 4,217,022 million (US $ 93,421 million) in 2009–2010 to ₹ 4,035,492 million (US $ 90,381 million) in 2010–2011 (Table 1-7).

Derivatives Market

The number of instruments available in derivatives has increased. To begin with, SEBI only approved trading in index futures contracts based on the Nifty 50 Index and the BSE 30 (SENSEX) Index. This was followed by approval for trading in options based on these indices and options on individual securities, as well as futures on interest rates derivative instruments. On the NSE, there are futures and options based on the benchmark index Nifty 50, CNX IT Index, Bank Nifty Index, and Nifty Midcap 50, as well as futures and options on 226 single stocks (as on October 30, 2011). On the BSE, futures and options are based on the BSE-30 (SENSEX), BSE TECk, BSE BANKEX, BSE Oil & Gas, and BSE SENSEX mini, as well as futures and options on 99 single stocks (as on October 30, 2011).

The mini derivative (futures and options) contracts on the Nifty 50 and the SENSEX were introduced for trading on January 1, 2008. The total exchange traded derivatives witnessed a value of ₹ 292,483,750 million (US $ 6,550,588 million) in 2010–2011 as against ₹ 176,638,990 million (US $ 3,921,825 million) in the preceding year. In 2010–2011, NSE proved itself the market leader in derivatives, contributing 100 percent of the total turnover in India. In the Indian scenario as well as in the global market, NSE has created a niche for itself in terms of derivatives trading in various instruments (this is discussed in detail in Chapter 6, with statistics).

NSE, which has been a pioneer in the introduction of innovative and investor-friendly products, has introduced rupee denominated future contracts on global indices such as S&P 500 and Dow Jones Industrial Average (DJIA), and option

Table 1-7: 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 (₹ mn)	Market Capitalisation (US $ mn)	Market Capitalisation Ratio (%)	Turnover (₹ mn)	Turnover (US $ mn)	Turnover Ratio (%)	On WDM Segment of NSE (₹ mn)	On SGL (₹ mn)	On WDM Segment of NSE (US $ mn)	On SGL (US $ mn)	Turnover (₹ mn)	Turnover (US $ mn)
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	109.3	51,308,160	1,283,667	99.63	2,604,088	5,003,047	65,151	125,170	133,327,869	3,335,698
2008-09	9,628	3020.95	9708.50	30,929,738	607,061	55.40	38,520,970	756,054	124.54	2,911,124	6,645,488	57,137	130,432	110,227,501	2,302,643
2009-10	9,772	5249.10	17527.80	61,704,205	1,366,952	94.20	55,168,330	1,222,161	89.41	4,217,022	9,018,385	93,421	199,787	176,638,990	3,921,825
2010-11	10,203	5833.80	19445.20	68,430,493	1,532,598	86.89	46,824,370	1,048,698	68.43	4,035,492	7,083,067	90,381	158,635	292,483,750	6,550,588
April-Sep 2011	10,248	4943.25	16453.80	59,579,280	1,217,760	75.65	17,405,910	355,765	29.21	2,029,354	3,510,823	41,479	71,759	157,600,280	3,221,243

Source: SEBI, CMIE Prowess, and NSE

contracts on S&P 500 with effect from August 29, 2011. This is the first time in the world that future contracts on the S&P 500 index were introduced and listed on an exchange outside of their home country (the US).

Regulators

The absence of conditions for perfect competition in the securities market makes the role of the regulator extremely important. The regulator ensures that the market participants behave in a certain manner so that the securities markets continue to be a major source of finance for the corporate sector and the government while protecting the interests of investors.

In India, the responsibility for regulating the securities market is shared by the Department of Economic Affairs (DEA), the Ministry of Company Affairs (MCA), the Reserve Bank of India (RBI), and SEBI. The orders of SEBI under the securities laws are appealable before a Securities Appellate Tribunal (SAT).

Most of the powers under the Securities Contracts (Regulation) Act, 1956 (SCRA) can be exercised by the DEA while a few others can be exercised by SEBI. The powers of the DEA under the SCRA are also concurrently 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 the RBI. The SEBI Act and the Depositories Act are mostly administered by SEBI. The rules under the securities laws are framed by the government and the regulations by SEBI. All these rules are administered by SEBI. The powers under the Companies Act relating to the issue and transfer of securities and the non-payment of dividend are administered by SEBI in the 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 to 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 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 the 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 (dematerialized) shares; and (e) the Prevention of Money Laundering Act, 2002.

Legislations

The 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 the securities market. It can conduct enquiries, audits, and inspection of all concerned, and adjudicate offences under the Act. It has the powers to register and regulate all market intermediaries, as well as to penalize them in case of violations of the provisions of the Act, Rules, and Regulations made thereunder. SEBI has full autonomy and the authority to regulate and develop an orderly securities market.

Securities Contracts (Regulation) Act, 1956: This Act provides for the 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 the Central Government regulatory jurisdiction over (a) stock exchanges through a process of recognition and continued supervision, (b) contracts in securities, and (c) the listing of securities on the stock exchanges. As a condition of recognition, a stock exchange complies with the conditions prescribed by the Central Government. Organized trading activity in securities takes place on a specified recognized 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) dematerializing the securities in the depository mode; and (c) providing for the maintenance of ownership records in a book entry form. In order to streamline the settlement process, the Act envisages the 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 the issue, allotment, and transfer of securities, as well as various aspects relating to company management. It provides the 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 the management's perception of risk factors. It also regulates underwriting, the use of premium and discounts on issues, rights, and bonus issues, the payment of interest and dividends, the supply of annual reports, and other information.

Prevention of Money Laundering Act, 2002: The primary objective of this Act is to prevent money laundering, and to allow the confiscation of property derived from or involved in money laundering. According to the definition of "money laundering," anyone who acquires, owns, possess, or transfers any proceeds of crime, or knowingly enters into any transaction that is related to the 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 prescribing the punishment for this offence, the Act provides other measures for the prevention of money laundering. The Act also casts an obligation on the intermediaries, the 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 has framed rules under the SCRA, the SEBI Act, and the Depositories Act. SEBI has framed regulations under the SEBI Act and the Depositories Act for the registration and regulation of all market intermediaries, and for the prevention of unfair trade practices, insider trading, etc. Under these Acts, the Government and SEBI issue notifications, guidelines, and circulars that the market participants need to comply with. The SROs, like the stock exchanges, have also laid down their own rules and regulations.

Role of NSE in Indian Securities Market

The National Stock Exchange of India (NSE) was recognized 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 across the country through an appropriate communication network; (c) providing a fair, efficient, and transparent securities market using an 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, these objectives have been realized, and the Exchange has played a leading role in transforming the Indian Capital Market to its present form.

NSE has set up an infrastructure that serves as a role model for the securities industry in terms of trading systems, and 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 a 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 its online system has helped in integrating retail investors on a national basis.

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 a demutualized setup, whereby the ownership, management, and trading rights are in the hands of three different sets of people. This has completely eliminated any conflicts of interest and has 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 across the country, 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, namely, the reduction of the settlement cycle, professionalization of the trading members, a fine-tuned risk management system, the dematerialization and electronic transfer of securities, and the establishment of a clearing corporation. Consequently, the market today uses state-of-the-art technology to provide an efficient and transparent trading, clearing, and settlement mechanism.

NSE provides a trading platform for of all types of securities—equity, debt, and derivatives. Following 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, and in the Equity Derivatives segment in June 2000. The Exchange started providing trading in retail debt of government securities in January 2003, and trading in currency futures in August 2008. NSE started providing trading in currency option in October 2010 and launched futures & options contracts based on global indices S&P 500 and DJIA in August 2011.

The WDM segment provides the trading platform for the trading of a wide range of debt securities. Its product, the FIMMDA NSE MIBID/MIBOR—which is now disseminated jointly with the FIMMDA—is used as a benchmark rate for the majority of the 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 the NSE-VaR for Fixed Income Securities have also become very popular for the valuation of sovereign securities across all maturities irrespective of liquidity, and have facilitated the pricing of corporate papers and the GOI Bond Index.

NSE's 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.

NSE's Equity Derivatives segment provides the trading of a wide range of derivatives such as Index Futures, Index Options, Stock Options, Stock Futures, and futures on global indices such as S&P 500 and DJIA.

NSE's Currency Derivatives segment provides the trading of currency futures contracts on the USD-INR, which commenced on August 29, 2008. In February 2010, trading in additional pairs such as the GBP-INR, the EUR-INR, and the JPY-INR was allowed, while USD-INR currency options were allowed for trading on October 29, 2010. The interest rate futures trade on the currency derivatives segment of the NSE, and they were allowed for trading on August 31, 2009.

Table 1-8: Market Segments on the NSE for 2010-2011—Selected Indicators

Segments	No. of securities traded/ No. of contracts available for trading	Market Capitalisation as of March 2011		Trading Value for 2010-11		Market Share (%)
		₹ mn	US $ mn	₹ mn	US$ mn	
CM	1,935	67,026,156	1,501,146	35,774,098	801,212	76.36%
Equity F&O	32,272	-	-	292,482,211	6,550,553	100.00%
Currency F&O	226	-	-	34,497,877	772,629	41.04%
Total	**-**	**67,026,156**	**1,501,146**	**362,754,186**	**8,124,394**	**85.68%**

Source: SEBI, NSE
Notes: *For CM segment, the number of securities traded is provided; for Equity F&O and currency F&O, the number of contracts available for trading as of March 2011 is provided.*

Once again, the NSE registered as the market leader, with 85.68 percent of total turnover (volumes in cash market, equity derivatives, and currency derivatives) in 2010–2011. NSE proved itself the market leader, contributing a share of 76.36 percent in equity trading and nearly 100 percent share in the equity derivatives segment in 2010–2011 (Table 1-8).

Technology and Application Systems in NSE

Technology has been the backbone of the NSE. Providing the services to the investor community and the market participants using technology at the cheapest possible cost has been its main thrust. NSE chose to harness technology to create a new market design. The Exchange believes that technology provides the necessary impetus for an organization to retain its competitive edge and to 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. The 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 2,100+ VSATs from nearly 174 cities spread across the country.

NSE's trading system, called the 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 an uptime record of 99.999 percent. For all trades entered into the NEAT system, there is a uniform response time in the range of milliseconds. NSE has been continuously undertaking capacity enhancement measures in order to effectively meet the requirements of the increasing number of users and the associated trading loads. NSE's Internet Based Information System (NIBIS) has also been put in place for online real-time dissemination of trading information over the Internet.

As part of its business continuity plan, the NSE has established a disaster back-up site at along with its entire infrastructure, including the satellite earth station and a high-speed optical fiber link with its main site at Mumbai. This site 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 4 STM-4 (2.4 GB) high-speed links to keep both the sites synchronized with each other all the time.

References:

IMF (2011), India Sustainability Report, Staff Report for the G-20 Summit.

IMF (2011), Global Financial Stability Report, September.

IMF, various issues of World Economic Outlook published in October (2010), April, June and September (2011).

RBI (2011), Financial Stability Report, Issue No. 4, December.

RBI (2011), Mid Quarter Monetary Policy Review, December.

S & P (2011), "Research Update: United States of America Long-Term Rating Lowered to 'AA+' on Political Risks and Rising Debt Burden; Outlook Negative", August 05.

World Bank (2011), India Economic Update, September.

2. Primary Market

Introduction

The primary market enables the government as well corporates in raising the capital that is required to meet their requirements of capital expenditure and/or discharge of other obligations such as exit opportunities for venture capitalist/ PE firms. The most common primary mechanism for raising capital is an Initial Public Offer (IPO), under which shares are offered to the public as a precursor to trading in the secondary market of an exchange. The price at which the shares are to be issued is decided with the help of the book building mechanism; in the case of oversubscription, the shares are allotted on a pro rata basis. When securities are offered exclusively to the existing shareholders of company, as opposed to the general public, it is known as Rights Issue. Another mechanism whereby a listed company can issue equity shares, as well as fully and partly convertible debentures that can be later converted into equity shares, to a Qualified Institutional Buyer (QIB) is termed as Qualified Institutional Placement. In addition to raising capital in the domestic market, companies can also issue securities in the international market through the ADR/GDR/ECB route to raise capital.

Trends

The issuers mobilize resources through public issues and private placements. The resources that are raised by corporates and the government from domestic as well as international markets are presented in Table 2-1. The total resources mobilized through corporate and government securities in 2010–2011 decreased by 15 percent compared to the figures for the previous year. The resources mobilized in 2010–2011 amounted to ₹ 8,561,863 million (US $ 191,755 million) as against ₹ 10,083,446 million (US $ 223,382 million) in 2009–2010. This chapter presents the developments in the primary market for corporate securities—equity as well as debt—in India; the primary market for government securities is discussed in Chapter 5.

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

	(₹ mn.)			(US $ mn.)		
Issues	**2008-09**	**2009-10**	**2010-11**	**2008-09**	**2009-10**	**2010-11**
Corporate Securities	**2,235,161**	**3,847,256**	**2,726,653**	**43,870**	**85,229**	**61,067**
Domestic Issues	2,187,281	3,687,586	2,632,243	42,930	81,692	58,953
Public Issues	146,710	254,790	248,300	2,879	5,644	5,561
Private Placement	2,040,571	3,432,796	2,383,943	40,050	76,048	53,392
Euro Issues	47,880	159,670	94,410	940	3,537	2,114
Government Securities	**4,366,880**	**6,236,190**	**5,835,210**	**85,709**	**138,152**	**130,688**
Central Government	3,185,500	4,924,970	4,794,820	62,522	109,104	107,387
State Governments	1,181,380	1,311,220	1,040,390	23,187	29,048	23,301
Total	**6,602,041**	**10,083,446**	**8,561,863**	**129,579**	**223,382**	**191,755**

Source: RBI

Corporate Securities

The primary market for corporate securities witnessed a sudden dip in 2010–2011 due to the 30.55 percent drop in capital raised through private placements. The resources raised through public issues witnessed a dip of 2.55 percent from ₹ 254,790 million (US $ 5,644 million) in 2009–2010 to ₹ 248,300 million (US $ 5,561 million) in 2010–2011. This accounted for a mere 2.90 percent of the total resources mobilized domestically. The resources raised by Indian corporates from the international capital market through the issuance of FCCBs, GDRs, and ADRs also witnessed a decrease of 40.87 percent in 2010–2011, raising ₹ 94,410 million (US $ 2,114 million) as against ₹ 159,670 million (US $ 3,537 million) in the previous year; this accounted for just 1.10 percent of the total resources mobilized by the government and the corporate sector.

Policy Developments

I. ASBA facility in public issues extended to QIBs (Circular date: April 06, 2010)

The Securities and Exchange Board of India (SEBI) decided to extend the Application Supported by Blocked Amount (ASBA) facility to QIBs in public issues opening on or after May 1, 2010. In this regard, stock exchanges, merchant bankers, Registrars to an issue, and Bankers to an issue acting as Self Certified Syndicate Banks have been advised to ensure that appropriate arrangements are made to accept ASBA forms from QIBs also, in addition to the existing categories of investors.

II. Reduction in time between issue closure and listing (Circular date: April 22, 2010)

Earlier, it took an average of 22 days to list the securities after an issue closed. This exposed investors as well as issuers to market risks, and led to infrastructural stress and costs. In consultation with market intermediaries, SEBI reduced the time between issue closure and listing to 12 working days. This revised procedure is applicable to all public issues opening on or after May 3, 2010.

In the new process, the syndicate members are to capture all the data relevant for finalizing basis of allotment while uploading bid data in the electronic bidding system of the stock exchanges. To ensure that the recorded data is accurate, the syndicate members are allowed an additional day to amend some of the data fields entered by them in the electronic bidding system. In the case of an apparent error made by either a syndicate member or the collecting bank in entering the application number in their respective schedules (other things remaining accurate), the application may be considered valid, and such exceptions may be recorded within minutes of the meeting being submitted to the stock exchange(s). In the event that a mistake in recording the application number by either the syndicate member or the collecting bank leads to the rejection of an application, the registrar may identify the entity responsible for the error based on the bid form. Valid records in the electronic file will be those for which money is received.

Indicative timeline schedule for various activities in the proposed issue process (Non-ASBA)

Sr. No.	Details of Activities	Due Date (Working Day)*
1.	Syndicate members upload bid details in the electronic bidding system of stock exchange(s). Syndicate members need to ensure that required documents are attached with the application form.	Issue opening date to issue closing date (where T = issue closing date)
2.	Issue closes.	T
3.	Stock exchange(s) to allow syndicate members to undertake modification of selected fields in the bid details already uploaded. Registrar to get the electronic bid details from the stock exchanges at the end of the day.	T + 1

Sr. No.	Details of Activities	Due Date (Working Day)*
4.	Issuer, merchant banker, and registrar to submit relevant documents to the stock exchange(s)—except listing application, allotment details, and demat credit and refund details—for the purpose of listing permission. Syndicate members to forward a schedule (containing application number, payment instrument number, and amount), application forms, and payment instruments to collecting banks. Collecting banks may not accept bid schedule, bid applications, and payment instruments after T+2 day. Registrar to give bid file received from the stock exchanges containing the application number and amount to all the collecting banks, which can use this file for validation at their end. Registrar to commence validation of the electronic bid details with depositories records for DP ID, Client ID, and PAN.	T + 2
5.	Registrar to continue validation of the electronic bid details with depositories records. Collecting banks to commence clearance of the payment instruments.	T+3
6.	Registrar to complete validation of the electronic bid details with depositories records. Collecting banks to start forwarding application forms along with bank schedules to registrar.	T+4
7.	Registrar to prepare list of rejected bids based on mismatch between the electronic bid details and the depositories database. Registrar to undertake Technical Rejection test based on the electronic bid details, and to prepare list of technical rejection cases.	T+5
8.	Collecting banks to submit clearance status of payment instruments, i.e., Final Certificate, to the registrar.	T+6
9.	Collecting banks to ensure that all application forms are forwarded to the registrar. Registrar to undertake and complete reconciliation of Final Certificate received from the collecting banks with the electronic bid details. Registrar to submit the final basis of allotment to designated stock exchange(s) for approval of the basis of allotment.	T+7
10.	Designated stock exchange(s) to approve the basis of allotment. Registrar to prepare funds transfer schedule based on approved allotment. Registrar to give instructions to depositories to carry out lock-in for pre-issue capital.	T+8
11.	Registrar and merchant banker to issue funds transfer instructions to collecting banks. Collecting banks to credit the funds in Public Issue Account of the issuer, and to confirm the same. Issuer to make allotment. Registrar to give instructions to depositories for the credit of shares to successful allottees. Registrar to receive confirmation for pre-issue capital lock-in from depositories.	T+9

Sr. No.	Details of Activities	Due Date (Working Day)*
12.	Issuer and registrar to file allotment details with designated stock exchange(s), and to confirm all formalities are completed, except demat credit and refund. Registrar to complete refund dispatch. Registrar to issue bank-wise data of allottees, allotted amount, and refund amount to collecting banks.	T+10
13.	Registrar to receive confirmation of demat credit from depositories, and to submit the same to the stock exchange(s). Issuer and registrar to file confirmation of demat credit and refund dispatch with stock exchange(s). Issuer to make a listing application to stock exchange(s), and stock exchanges to give listing and trading permission. Issuer, merchant banker, and registrar to publish allotment advertisement before the commencement of trading, prominently displaying the date of commencement of trading, in all the newspapers where issue opening/closing advertisements have appeared earlier. Stock exchange(s) to issue commencement trading notice.	T+11
14.	Trading commences.	T+12

* All days excluding Sundays and bank holidays will be working days.

III. Entities seeking listing of their securities post-IPO have to submit their shareholding pattern one day prior to the date of listing (Circular date: December 16, 2010)

In order to improve the quality of disclosures made by listed entities, SEBI decided to alter the following amendments of the Equity Listing Agreement (LA).

a) Entities which seek listing of their securities post-IPO shall mandatorily submit their shareholding pattern as per Clause 35 of the LA one day prior to the date of listing, in order to ensure public dissemination of updated shareholding pattern. The stock exchanges shall upload the same on their websites before commencement of trading in the prescribed securities.

b) With a view to ensure public dissemination of the shareholding pattern pursuant to capital restructuring in listed entities, it has been decided that in all cases wherein the change in capital structure due to such restructuring exceeds +/- 2 percent of the paid up share capital of the entities, the listed entities shall file a revised shareholding pattern with the stock exchanges within 10 days from the date of allotment of shares pursuant to such change in the capital structure, as per the format specified in clause 35 of the LA along with a footnote on what necessitated the filing of the revised shareholding pattern. The stock exchanges shall upload the same on their websites immediately.

c) In the case of listed entities which that have issued Depository Receipts (DRs) overseas, in order to ensure a holistic and true picture of the promoter/promoter group holding in such entities, it has been decided that details of 'shares held by custodians and against which DRs have been issued' that are presently required to be disclosed in Table (I) (a) of Clause 35 shall be further segregated as those pertaining to the 'promoter/promoter group' and to the 'public'.

d) In order to enable investors to manage their cash/securities flows efficiently and to enhance process transparency, it has been decided to mandate companies to have a pre-announced fixed pay date for payment of dividends and for credit of bonus shares.

e) In order to ensure public dissemination of details of agreements entered into by corporates with media companies, it has been decided that the listed entities shall disclose the details of such agreements on their websites and also notify the stock exchange of the same for public dissemination.

f) In order to ensure/enhance public dissemination of all basic information about a listed entity, it has been decided to mandate that all listed entities maintain a functional website that contains certain basic information about them, duly updated for all statutory filings, including agreements entered into with media companies, if any.

IV. Amendments to the Equity Listing Agreement (Circular date: April 05, 2010)

In line with the objective of enhancing the quality of disclosures made by listed entities, it was decided to effect certain amendments to the Equity Listing Agreement with respect to various continuous disclosures made by listed entities.

a) Entities that seek listing of their securities post-IPO shall mandatorily submit their shareholding pattern as per Clause 35 of the Listing Agreement one day prior to the date of listing.

b) With a view to ensuring public dissemination of the shareholding pattern pursuant to capital restructuring in listed entities, in all cases wherein the change in capital structure due to such restructuring exceeds +/- 2 percent of the paid up share capital of the entities, the listed entities shall file a revised shareholding pattern with the stock exchanges within 10 days from the date of allotment of shares pursuant to such change in the capital structure.

c) In the case of listed entities that have issued Depository Receipts (DRs) overseas, in order to ensure a holistic and true picture of the promoter/promoter group holding in such entities, ownership details of DRs shall be further segregated as those pertaining to the 'promoter/promoter group' and to the 'public.'

V. Listing Agreement for securitized debt instruments (Circular date: March 16, 2011)

In order to develop the primary market for securitized debt instruments in India, SEBI notified the Securities and Exchange Board of India (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008. The Regulations provide a framework for the issuance and listing of securitized debt instruments by a special purpose distinct entity (SPDE). The listing of securitized debt instruments would help improve the secondary market liquidity of such instruments. The Listing Agreement provides for the disclosure of pool-level, tranche-level, and select loan-level information. Regarding listed securitized debt instruments, it is clarified that SPDEs that make frequent issues of securitized debt instruments are permitted to file umbrella offer documents along the lines of a 'shelf prospectus.'

The SEBI observed that the effect of such differential pricing, if any, in a public issue was being given to the eligible investors only at the allotment stage of the specified securities, and not at the time of filing an application for such allotment. This took away certain benefits from the investors, such as lower cash outflow at a price net of discount and the ability to apply for more shares with the same cash outlay. In order to address this issue, it was decided to allow those investors who are eligible for differential pricing in public issues to make the payment at a price net of discount, if any, at the time of bidding itself.

VII. ASBA facility mandatory for QIBs and NIIs (Circular date: February 8, 2011)

The ASBA facility was made mandatory for non-retail investors, i.e., Qualified Institutional Buyers (QIBs) and Non-Institutional Investors (NIIs) making applications in public/rights issues with effect from May 01, 2011.

VIII. Amendment to public shareholding requirement (Circular date: February 17, 2010)

The Securities Contracts (Regulation) Rules 1957 provide the requirements that have to be satisfied by companies for getting their securities listed on any stock exchange in India. A dispersed shareholding structure is essential for the sustenance of a continuous market for listed securities to provide liquidity to the investors and to discover fair prices. Further, the larger the number of shareholders, the less is the scope for price manipulation. The salient features of the amendment are as follows:

a) The minimum threshold level of public holding will be 25 percent for all listed companies.

b) Existing listed companies having less than 25 percent public holding have to reach the minimum 25 percent level by an annual addition of not less than 5 percent to public holding.

c) For new listings, if the post-issue capital of the company calculated at offer price is more than ₹ 4000 crore, the company may be allowed to go public with 10 percent public shareholding, and it shall comply with the 25 percent public shareholding requirement by increasing its public shareholding by at least 5 percent per annum.

d) A company may increase its public shareholding by less than 5 percent in a year if such increase brings its public shareholding to the level of 25 percent in that year.

e) Every listed company shall maintain a public shareholding of at least 25 percent. If the public shareholding in a listed company falls below 25 percent at any time, such company shall bring the public shareholding to 25 percent within a maximum period of 12 months from the date of such fall.

IX. Amendment to the SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009 for revision of Bid-cum-Application Form and Abridged Prospectus

In order to ensure that materially important information is provided in a structured, logical, and user-friendly manner that will aid the investor in making his/her investment decision, SEBI revised the structure, design, format, contents, and order of information of the Bid-cum-Application Form and Abridged Prospectus. This was done based on the recommendations of a group comprising a cross-section of market participants that had been constituted by SEBI. The revised Abridged Prospectus shall contain company/project specific information, and shall highlight materially relevant disclosures, such as peer comparison of important financial ratios and risk factors.

Upon implementation, the following benefits will accrue:

a) Ease of handling the Application/Abridged Prospectus, as it is in an A4-size booklet form

b) Approximately 50 percent reduction in the number of pages

c) Rationalization and logical sequencing of information to make it more readable and investor friendly, highlighting material disclosures and availability of information regarding price

d) Standardization of form, and single form for ASBA/Non-ASBA

e) 100 percent increase in space for key data fields in the application form, facilitating easier form filling

f) Track record of BRLMs

X. Eligibility criteria for companies coming out with IPOs through the 'profitability track record'

In the case of a pure Offer for Sale, the requirement that not more than 50 percent of the net tangible assets shall be held as monetary assets, shall not be applicable. The requirement of track record of distributable profits for at least three of the immediately preceding five years shall be complied with on both a stand-alone as well as a consolidated basis.

XI. Due diligence records to be maintained by merchant bankers

The board approved the amendment to the SEBI (Merchant Bankers) Regulations, 1992, requiring merchant bankers to maintain records and documents pertaining to due diligence exercised in pre-issue and post-issue activities of issue management, takeover, buyback, and delisting of securities. At present, they are not required to maintain any records as to how they exercised due diligence. As a result, merchant bankers follow different standards of compliance, and the level of due diligence cannot be checked during SEBI's inspection of merchant bankers.

XII. Market intermediaries to have proper internal controls to govern the conduct of their employees (Circular date: March 23, 2011)

The SEBI observed that unauthenticated news related to various scrips were being circulated in blogs, chat forums, e-mails, etc. by the employees of broking houses/other intermediaries without adequate caution as is mandated in the Code of Conduct for Stock Brokers. In various instances, it was observed that the intermediaries did not have proper internal controls, and did not ensure that proper checks and balances were in place to govern the conduct of their employees. Further, due to poor training and the lack of proper internal controls, the employees of such intermediaries were sometimes not aware of the damage that could be caused by the circulation of unauthenticated news or rumours. It is a well-established fact that market rumours can do considerable damage to the normal functioning and behaviour of the market, and distort the price discovery mechanisms.

In view of these facts, market intermediaries were informed that:

a) Proper internal code of conduct and controls should be put in place.

b) Employees/temporary staff/voluntary workers employed/working in the offices of market intermediaries should not encourage or circulate rumours or unverified information obtained from clients, industry, any trade, or any other sources without verification.

c) Access to blogs, chat forums, messenger sites, etc. should either have restricted access under supervision or access should not be allowed.

d) Logs for any usage of such blogs/chat forums/messenger sites (called by any nomenclature) shall be treated as records, and the same should be maintained as specified by the respective regulations that govern the intermediary concerned.

e) Employees should be directed that any market-related news received by them in their official mail/personal mail/blog or in any other manner should be forwarded only after the same has been seen and approved by the Compliance Officer of the intermediary concerned. If an employee fails to do so, he/she shall be deemed to have violated the various provisions contained in the SEBI Act/Rules/Regulations, and shall be liable for action. The Compliance Officer shall also be held liable for breach of duty in this regard.

XIII. Disclosure of price information of past issues handled by merchant bankers (Circular date: September 27, 2011)

The SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009 was revised to specify that the price information of past issues handled by merchant bankers should be disclosed along with the Due Diligence Certificate in the Draft Red Herring Prospectus/Red Herring Prospectus/Prospectus filed with the SEBI/Registrar of Companies (as applicable) on or after November 01, 2011.

XIV. Guidelines for issue and listing of structured products/market linked debentures (Circular date: September 28, 2011)

The SEBI prescribed initial and continuous disclosure norms applicable to all such securities that have an underlying principal component in the form of debt securities, and where the returns are linked to market returns on other underlying securities/indices. Securities that do not promise to return the principal amount in full at the end of the tenor of the instrument shall not be considered as debt securities, and therefore, will not be eligible for issue and listing under the above regulations.

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, SEBI prescribes the eligibility and disclosure norms through the ICDR Regulations 2009 that the issuer and the promoter need to comply with for accessing the market. In this section, we discuss the market design related to public issues, offer for sale, and rights issue by listed and unlisted companies, as per the ICDR Regulations prescribed by SEBI.

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 the Registrar of Companies/designated stock exchanges:

- File a draft offer document with SEBI, along with the specified fees through an eligible merchant banker, at least 30 days prior to the filing of the red herring prospectus or shelf prospectus with the Registrar of Companies (RoCs) or the filing of the letter of offer with the designated stock exchanges, as the case may be.
- Obtain In-principle approval from all the recognized stock exchanges in which the issuer proposes to get its specified securities listed.
- Enter into an agreement with the depository for the dematerialization of its securities that are already issued or are proposed to be issued.

A company can make an IPO as per the following conditions:

- It has net tangible assets of at least ₹ 3 crore in each of the preceding three full years, of which not more than 50 percent is held in monetary assets, provided that if more than 50 percent 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. In the case of a pure Offer for Sale, the requirement that not more than 50 percent of the net tangible assets shall be held as monetary assets shall not be applicable;
- It has a net worth of at least ₹ 1 crore in each of the preceding three full years;
- It has a track record of distributable profits in terms of Section 205 of the Companies Act, 1956, for at least three of the immediately preceding five years, provided further that extraordinary items shall not be considered for calculating distributable profits in terms of Section 205 of Companies Act, 1956. The requirement of track record of distributable profits for at least three out of immediately preceding five years shall be complied with on both a stand-alone as well as a consolidated basis;
- The aggregate of the proposed issue and all previous issues made in the same financial year in terms of size does not exceed five times its pre-issue net worth as per the audited balance sheet of the preceding financial year; and
- In case the company has changed its name within the last one year, at least 50 percent of the revenue for the preceding one full year is earned by the company from the activity suggested by the new name.

In case these conditions are not satisfied, an issuer can still make an IPO on complying with the following guidelines:

1. The issue should be made through the book building process with at least 50 percent of net offer to public being allotted to the QIBs; if not, then the full subscription monies has to be refunded,

   OR

   The project should have at least 15 percent of the cost of project contributed by public financial institutions or scheduled commercial banks, of which at least 10 percent should come from the appraiser. In addition, at least 10 percent of the issue size should be allotted to QIBs; otherwise, the full subscription monies should be refunded;

   AND

2. Minimum post-issue face value capital of the company should be ₹ 10 crore,

   OR

   There should be compulsory market making for at least two years from the date of listing of securities, subject to certain conditions as specified in the regulations.

A company can make an IPO of convertible debt instruments without making a prior public issue of its equity shares, and can list the same.

Pursuant to a public issue, no allotment can be made if the number of prospective allottees is less than one thousand.

The issuer will not make an IPO if there are any outstanding convertible securities or any other rights that would entitle any person with any option to receive equity shares.

Credit Rating for Debt Instruments:

No public issue or rights issue of convertible debt instruments can be made unless a credit rating of not less than investment grade is obtained from at least one credit rating agency registered with SEBI. In case the credit rating is obtained from more than one credit rating agency, all the credit rating/s, including the unaccepted credit ratings, should be disclosed. All the credit ratings obtained in the three years preceding the public or rights issue of debt instruments (including convertible instruments) for any listed security of the issuer company should be disclosed in the offer document.

IPO Grading:

No issuer should make an IPO of equity shares or any other securities that 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 the Prospectus (in the case of fixed price issues) or the Red Herring Prospectus (in the case of book built issues) with the RoC:

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

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

Pricing of Public Issues:

An issuer may determine the price of specified securities, coupon rate, and conversion price of convertible debt instruments in consultation with the lead merchant banker or through the book building process. An issuer making an IPO may determine the face value of equity shares subject to the provisions of the Companies Act, 1956, the SEBI Act and Regulations.

If the issue price per equity share is ₹ 500 or more, the issuer shall have the option of determining the face value at less than ₹ 10 per equity share, subject to the condition that the face value shall not be less than ₹ 1 per equity share. In case the issue price per equity share is less than ₹ 500 per equity share, the face value of the shares shall be ₹ 10 per equity share.

The previous clause does not apply to IPOs made by any government company, statutory authority or corporation, or any special purpose vehicle set up by any of them that is engaged in the infrastructure sector.

The disclosure of the face value of equity shares (including the statement about the issue price being *x* times the face value) shall be made in the advertisements, offer documents, and application forms.

Differential Pricing:

An issuer may offer equity shares and convertible securities at different prices, subject to the following conditions:

(a) The retail individual investors/shareholders or employees entitled for reservation making an application for equity shares and convertible securities of value not more than ₹ 2 lakh may be offered equity shares and convertible securities at a price lower than the price at which the net offer is made to other categories of applicants, provided that such difference is not more than 10 percent of the price at which the equity shares and convertible securities are offered to other categories of applicants.

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

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

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

Price and Price Band:

The issuer can mention the price or price band in the draft Prospectus (in the case of a fixed price issue) and the floor price or price band in the Red Herring Prospectus (in the case of a book built issue) and determine the price at a later date before registering the Prospectus with the Registrar of Companies, which would need to contain only one price or the specific coupon rate, as the case may be. If the floor price or price band is not mentioned in the Red Herring Prospectus, the issuer shall announce the floor price or price band at least two working days before the opening of the bid in the case of an IPO, and at least one working day before the opening of the bid in the case of an FPO.

The cap on the price band shall be less than or equal to 120 percent of the floor price. The floor price or the final price shall not be less than the face value of the specified securities. The 'cap on the price band' includes the cap on the coupon rate in the case of convertible debt instruments.

Contribution of Promoters and Lock-in:

- The promoters' contribution in the case of an IPO should not be less than 20 percent of the post-issue capital.
- In the case of a further public offer, the promoters should contribute up to 20 percent of the proposed issue, or should ensure a post-issue share holding that is up to 20 percent of the post-issue capital.
- For a composite issue, the promoters' contribution should be either 20 percent of the proposed issue size or 20 percent 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 the 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.
- The minimum promoters' contribution should be locked in for a period of three years in the case of public issues. However, 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 commencement of commercial production (the last date of the month in which commercial production in a manufacturing company is expected to commence, as stated in the offer document) or the date of allotment in the public issue, whichever is later.
- The entire pre-issue share capital, other than that of the promoters, shall be locked for a period of one year. The securities allotted on a 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 the promoters may be pledged only with banks or public FIs as collateral security for loans granted by such banks or FIs.

Pre-Issue Obligations:

The lead merchant banker has to exercise due diligence and satisfy himself/herself about all aspects of the issue including the offering, veracity, and adequacy of disclosures in the offer document. The liability of the merchant banker will continue even after the completion of the 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 the draft offer document filed with the Board. In the 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 (MOU) with the lead merchant banker, which specifies their mutual rights, liabilities, and obligations.

- The lead merchant banker responsible for drafting 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, obligations, and responsibilities of each merchant banker should be demarcated as specified in Schedule I.
- In the case of undersubscription of an issue, the lead merchant banker responsible for the underwriting arrangements should invoke the underwriting obligations, and ensure that the notice for devolvement containing the obligations of the underwriters is issued in terms of the regulations as specified in Schedule I.

- The lead merchant banker should furnish to the Board a due diligence certificate as specified in Schedule IV, along with the draft offer document.
- In the case of a fast track issue of convertible debt instruments, the lead merchant banker should furnish a due diligence certificate to the Board as per the format specified in Schedule VI.

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

The draft offer documents filed with the Board should be made public for a period of 21 days from the date of filing the offer document with the Board, and should be filed with the stock exchanges where the securities are proposed to be listed. Further, the draft offer documents should be put up on the Websites of the lead managers/syndicate members associated with the issue, and it should also be ensured that the contents of the documents hosted on the Websites are the same as those 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, and a statement as to whether it is proposed to amend the draft offer document or not, highlighting those amendments.

The lead manager should also ensure that the issuer company has entered into agreements with all the depositories for the dematerialization of the 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 with the various laws, rules, regulations, and other directives issued by the Board.

Post-Issue Obligations:

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

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 the allotment in a fair and proper manner as specified in Schedule XV of the ICDR Regulations.

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

Credit Rating:

Credit rating agencies (CRA) can be promoted by public financial institutions, scheduled commercial banks, foreign banks operating in India, or by any corporate body having a continuous minimum net worth of ₹ 100 crore for the previous five years. Further, foreign credit rating agencies recognized by or under any law in force at the moment 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 estate. 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 CRA registered with the Board and this disclosed in the offer document. Where ratings are obtained from more than one CRA, 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 the SEBI (Merchant Bankers) Regulations, 1992. Consequently, all the merchant bankers have to be registered with SEBI. The details about them are presented 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 the necessary infrastructure, with at least two experienced employees can apply for registration as a merchant banker. The capital adequacy requirement should be a net worth of ₹ 50 million. The regulations cover the code of conduct to be followed by merchant bankers, the responsibilities of the lead managers, the payments of fees, and the disclosures to SEBI.

Demat Issues:

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

Private Placement:

Private placement involves the 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 a public issue.

Market Outcome

Public and Rights Issues

The year 2010–2011 witnessed an upsurge in the primary market activity of public issues of listed companies. In 2010-2011, the resources mobilized from public and rights issues increased by 17.47 percent to ₹ 676,080 million (US $ 15,142 million) compared to ₹ 575,552 million (US $ 12,750 million) in 2009–2010. Resource mobilization by way of IPOs leaped to ₹ 355,590 million in 2010–2011 from ₹ 246,961 million in 2009–2010. Compared to the 76 total schemes in 2009–2010, there were 91 issues in this year (Table 2-2). Though the total number of FPOs in 2010–2011 remained flat at five, there was a drastic drop in resource mobilization, from ₹ 220,405 million in 2009–2010 to ₹ 130,950 million in 2010–2011. The share of equity public issues in the total resources mobilized witnessed a slight decrease from 81.20 percent in 2009–2010 to 71.97 percent in 2010–2011. The mobilization of resources through right issues recorded a rise in 2010–2011. It witnessed a jump from ₹ 83,186 in 2009–2010 to ₹ 95,030 in 2010–2011. By numbers, the last year witnessed only 23 companies using the rights route, compared to the previous year that had seen 29 issues. The largest rights issue in the year was from Central Bank of India (₹ 24,976 million) followed by Bajaj Hindusthan Ltd (₹ 16,440 million).

Table 2-2: Resource Mobilization from Public and Rights Issues

	2009-10			2010-11			(Apr - Sep'11)		
	Number	Amount (₹ mn)	Amount (US $ mn)	Number	Amount (₹ mn)	Amount (US $ mn)	Number	Amount (₹ mn)	Amount (US $ mn)
1. Public Issues (i) + (ii)	**47**	**492,366**	**10,908**	**68**	**581,050**	**13,013**	**36**	**142,540**	**2,913**
i. Public Issues	44	467,366	10,354	58	486,540	10,897	30	95,590	1,954
Public Issues (IPO)	39	246,961	5,471	53	355,590	7,964	29	49,810	1,018
Public Issues (FPO)	5	220,405	4,883	5	130,950	2,933	1	45,780	936
ii. Public Issues (Bond/NCD)	3	25,000	554	10	94,510	2,117	6	46,950	960
2. Rights Issues	**29**	**83,186**	**1,843**	**23**	**95,030**	**2,128**	**10**	**20,880**	**427**
Total (1+2)	**76**	**575,552**	**12,750**	**91**	**676,080**	**15,142**	**46**	**163,420**	**3,340**

Source: SEBI
Note: All offers for sale are initial public offers, and hence, are already counted under IPOs

During the period April–September 2011, private issuers raised ₹ 100,100 million—34.06 percent of what they mobilized in 2010–2011—whereas public issuers remained dormant as they raised ₹ 63,320 million—16.57 percent of the capital mobilized in 2010–2011.

Table 2-3: Sector-wise Distribution of Resources Mobilised

	2009-10		2010-11		Apr - Sep'11	
	Number	Amount (₹ mn)	Number	Amount (₹ mn)	Number	Amount (₹ mn)
Private	71	324,770	77	293,850	43	100,100
Public	5	250,780	14	382,230	3	63,320
Total	**76**	**575,550**	**91**	**676,090**	**46**	**163,420**

Source: SEBI
Note: This table includes public issues and rights issues

Industry-wise distribution, Size-wise distribution

The banking sector contributed the maximum share (25.5 percent) of the total resources mobilized during 2010–2011, with 18 issues mobilizing ₹ 172,480 million. The finance sector was at the leading position in the league with ₹ 76,990 million, accounting for 47.11 percent of the total resources mobilized in the first six months of FY 2012. In 2010–2011, the finance sector contributed only 3.30 percent to the total resources. Over the years, several industries have emerged as the major contributors of the resources mobilized (Table 2-4).

Table 2-4: Industry-wise Distribution of Resources Mobilized

Industry	2009-10			2010-11			Apr - Sep'11		
	Number	Amount (₹ mn)	Percentage Share	Number	Amount (₹ mn)	Percentage Share	Number	Amount (₹ mn)	Percentage Share
Banking/FIs	6	31,380	5.45	18	172,480	25.50	6	46,950	28.73
Cement & Construction	8	27,800	4.83	3	28,410	4.20	1	600	0.37
Chemical	1	360	0.06	5	2,470	0.40	0	-	0.00
Electronics	1	11,560	2.01	0	-	0.00	1	1,210	0.74
Engineering	1	500	0.09	5	13,940	2.10	1	2,170	1.33
Entertainment	9	24,610	4.28	4	7,150	1.10	0	-	0.00
Finance	2	18,260	3.17	3	22,100	3.30	9	76,990	47.11
Food Processing	2	4,430	0.77	1	12,450	1.80	0	-	0.00
Healthcare	3	10,590	1.84	3	2,920	0.40	1	650	0.40
Information Technology	6	5,400	0.94	1	1,700	0.30	2	1,380	0.84
Paper & Pulp	1	350	0.06	0	-	0.00	2	3,060	1.87
Power	6	252,930	43.95	4	94,690	14.00	0	-	0.00
Telecom	0	-	0.00	0	-	0.00	0	-	0.00
Textile	3	2,370	0.41	3	2,070	0.30	0	-	0.00
Others	27	185,010	32.14	41	315,710	46.60	23	30,410	18.61
Total	**76**	**575,550**	**100.00**	**91**	**676,090**	**100**	**46**	**163,420**	**100**

Source: SEBI

Table 2-5 exhibits the size-wise distribution of public and rights issues in 2010–2011. About 97.23 percent of the resource mobilization was through public issues of issue size above ₹ 100 crore. In terms of the number of issues, however, there were only 55 issues out of 91 that were above ₹ 100 crore.

Table 2-5: Size-wise Distribution of Resources Mobilized

Issue Size	2009-10			2010-11			Apr - Sep'11		
	Number	Amount (₹ mn)	Percentage Share	Number	Amount (₹ mn)	Percentage Share	Number	Amount (₹ mn)	Percentage Share
< ₹ 5 crore	1	20	0.00	1	20	0.00	2	90	0.06
≥ ₹ 5 crore & < ₹ 10 crore	3	240	0.04	2	110	0.02	0	0	-
≥ ₹ 10 crore & < ₹ 50 crore	18	5,960	1.04	13	4,550	0.67	14	4,360	2.67
≥ ₹ 50 crore & < ₹ 100 crore	9	6,360	1.11	20	14,060	2.08	11	7,340	4.49
≥ ₹ 100 crore	45	562,980	97.81	55	657,350	97.23	19	151,620	92.78
Total	**76**	**575,560**	**100.00**	**91**	**676,090**	**100.00**	**46**	**163,420**	**100.00**

Source: SEBI

There were 41 mega issues (₹ 300 crore and above) during April 2010–September 2011, the largest being the IPO issue of Coal India Ltd (₹ 151,994 million), followed by the FPO issue of the Power Grid Corporation of India Ltd (₹ 74,423 million). The 41 mega issues mobilized 81.79 percent of the total resources raised.

Table 2-6: Mega Issues in April 2010–September 2011

Name of the Company	Tye of Issue	Type of instrument	Issue open date	Offer Size (₹ mn.)	Percentage Share in the Grand Total
Nitesh Estates Ltd	IPO	Equity	23-Apr-10	4,050	0.48
SJVN Ltd	IPO	Equity	29-Apr-10	10,625	1.27
Jaypee Infratech Ltd	IPO	Equity	29-Apr-10	22,620	2.69
Suzlon Energy Ltd	Rights	Equity	18-Jun-10	13,077	1.56
REI Agro Ltd	Rights	Equity	30-Jun-10	12,454	1.48
Engineers India Ltd	FPO	Equity	27-Jul-10	9,594	1.14
SKS Micro Finance Ltd	IPO (Fresh + OFS)	Equity	28-Jul-10	16,288	1.94
Gujarat Pipavav Port Ltd	IPO (Fresh + OFS)	Equity	23-Aug-10	5,539	0.66
Trent Ltd	Rights	CCPS	6-Aug-10	4,903	0.58
Indosolar Ltd	IPO	Equity	13-Sep-10	3,570	0.43
State Bank of Mysore	Rights	Equity	15-Sep-10	5,832	0.69
Eros International Media Ltd	IPO	Equity	17-Sep-10	3,500	0.42
Orient Green Power Company Ltd	IPO	Equity	21-Sep-10	9,000	1.07
Ramky Infrastructure Ltd	IPO	Equity	21-Sep-10	5,300	0.63
Va Tech Wabag Ltd	IPO	Equity	22-Sep-10	4,726	0.56
Oberoi Realty Ltd	IPO	Equity	6-Oct-10	10,286	1.23
Prestige Estates Projects Ltd	IPO	Equity	12-Oct-10	12,000	1.43
Coal India Ltd	IPO	Equity	18-Oct-10	151,994	18.11
MOIL Ltd	IPO	Equity	26-Nov-10	12,375	1.47
Power Grid Corporation of India Ltd	FPO	Equity	9-Nov-10	74,423	8.87
The Shipping Corporation of India Ltd	FPO (Fresh + OFS)	Equity	30-Nov-10	11,649	1.39
A2Z Maintenance & Engg.Services	IPO (Fresh + OFS)	Equity	8-Dec-10	7,763	0.92
Punjab & Sind Bank	IPO	Equity	13-Dec-10	4,708	0.56
Tata Steels Ltd	FPO	Equity	19-Jan-11	34,770	4.14
Karur Vysya Bank Ltd	Rights	Equity	28-Feb-11	4,575	0.54
EIH Ltd	Rights	Equity	1-Mar-11	11,789	1.40
The Karnataka Bank Ltd	Rights	Equity	8-Mar-11	4,570	0.54
PTC India Financial Services Ltd	IPO	Equity	16-Mar-11	4,333	0.52
Central Bank of India	Rights	Equity	24-Mar-11	24,976	2.98
State Bank of Bikaner & Jaipur	Rights	Equity	28-Mar-11	7,800	0.93
Shriram Transport Finance Company Ltd	Public	NCD	17-May-10	5,000	0.60
Infrastructure Development Finance Company Ltd (Tranche 1)	Public	NCD	30-Sep-10	4,843	0.58
State Bank of India	Public	NCD	18-Oct-10	10,000	1.19
Infrastructure Development Finance Company Ltd (Tranche 2)	Public	NCD	17-Jan-11	7,573	0.90
L&T Infrastructure Finance Company Ltd	Public	NCD	7-Feb-11	4,000	0.48
State Bank of India (Tranche-1)	Public	NCD	21-Feb-11	54,970	6.55
Muthoot Finance Ltd.	IPO	Equity	18-Apr-11	9,010	1.07
Future Ventures India Ltd.	IPO	Equity	25-Apr-11	7,500	0.89
Power Finance Corporation Ltd	FPO	Equity	10-May-11	45,780	5.45
L&T Finance Holdings Ltd	IPO	Equity	27-Jul-11	12,450	1.48
Bajaj Hindusthan Ltd	Rights	Equity	29-Sep-11	16,440	1.96
Total - Mega Issues (₹ mn.)				**686,655**	**81.79**
Grand Total-Resource Mobilisation from Public and Rights Issues (₹ mn.)				**839,510**	**100**

Source: SEBI

The Prime Database captures the Indian public's response to public issues, which is presented in Chart 2-1. The public issues managed to generate euphoria among the investors, which can be seen from the fact that 43 percent of the issues were subscribed more than five times as a result of underpricing, compared to 17 percent in 2008–2009; moreover, out of the 51 IPOs that hit the market in 2010–2011, 33 issues reported listing gains. Only 28 percent of the public issues were subscribed less than 1.5 times, compared to 55 percent in 2008–2009. The most subscribed issues in 2010–2011 were MOIL Ltd, which was oversubscribed 55.95 times, followed by Punjab & Sind Bank, which was oversubscribed 50.23 times. Merchant bankers got a good response to IPO Application Supported by Blocked Amount (ASBA) from retail investors, as it contributed to 14.93 percent of the total retail amount collection from book building issues and fixed price issues for 2010–2011.

Chart 2-1: Response to Public Issues (IPO and FPO)

Source: Prime Database

Note: This chart includes only public issues, not rights issues

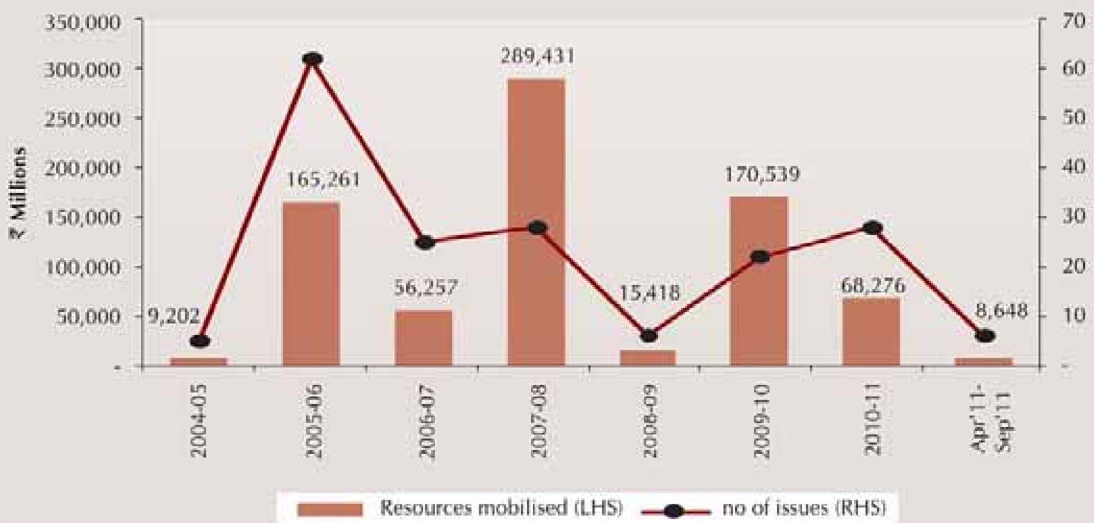
Euro Issues

Indian companies raise resources from international markets through the issue of Foreign Currency Convertible Bonds (FCCBs), and through GDRs, ADRs, GDS, ADS, which 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.

In 2010–2011, as a result of the turbulent global financial market, there was a steep decline in the resources mobilized through Euro issues, which decreased to ₹ 94,410 million (US $ 2,114 million) compared to ₹ 159,670 million (US $ 3,537 million) raised in 2009–2010. (Table 2-1).

The resources mobilized by the companies listed on NSE through GDRs, ADRs, GDSs, and ADSs also witnessed a decline from ₹ 170,539 million (US $ 3,778 million) in 2009–2010 to ₹ 68,276 million (US $ 1,529 million) in 2010–2011. In the current fiscal year, six companies mopped up ₹ 8,648 million collectively, with an average issue size of ₹ 1,441 million, 40.89 percent down from the issue size of ₹ 2,438 million in 2010–2011 (Chart 2-2).

Chart 2-2: Resources mobilized on NSE through GDR, ADR, GDS, and ADS



Source: NSE

Performance of Initial Public Offerings (IPOs) listed on NSE

In 2010–2011, ₹ 333,853 million (US $ 7,477 million) was raised through the 51 IPOs listed on the NSE. They were from various sectors, such as finance, construction, engineering, and power. Coal India Ltd came out with an IPO of equity shares, mobilizing ₹ 151,994 million (US $ 3,404 million). Of the 51 IPOs (excluding the NCDs), 33 issues had reported listing gains, and only 15 had managed to close in green by the end of 2010–2011. Around 18 IPOs showed negative returns on the first day of trading, and 36 IPOs showed negative returns by March 2011 when compared to their issue price. The IPO of Career Point Infosystems Limited marked its outperformance with listing gains of 102.63 percent on its first day of trading, and the IPO of Gravita India Limited rewarded its shareholders with a whopping 202.12 percent increase in price over the issue price at the end of March 2011.

In April 2011–September 2011, ₹ 44,048 million (US $ 900 million) was raised through the 19 IPOs listed on the NSE. Out of those 19 IPOs, eight issues had reported listing gains and six had managed to close in green by the end of September 2011. The IPO of PG Electroplast Limited got listed with a listing gains of 97.76 percent, while the IPO of Rushil Decor Limited rewarded its shareholders with a price appreciation of 142.85 percent over the issue price, as of September 2011.

Table 2-7: Performance of IPOs listed on NSE in April 2010–March 2011

Sr. No.	Company Name	Sector	Issue size (₹ mn.)	Date of Listing	Issue Price (₹)	Listing price (₹)	Close Price at end of March 2011	Price Appreciation/ Depreciation on the first day of trading with the issue price	Price Appreciation/ Depreciation at end March 2011 with the issue price
1	Pradip Overseas Limited	textile products	1,166	5-Apr-10	110	107.05	79.40	-2.68%	-27.82%
2	Persistent Systems Limited	computers - software	1,680	6-Apr-10	310	406.35	367.25	31.08%	18.47%

Contd.

Contd.

Sr. No.	Company Name	Sector	Issue size (₹ mn.)	Date of Listing	Issue Price (₹)	Listing price (₹)	Close Price at end of March 2011	Price Appreciation/ Depreciation on the first day of trading with the issue price	Price Appreciation/ Depreciation at end March 2011 with the issue price
3	Shree Ganesh Jewellery House Limited	gems, jewellery and watches	3,710	9-Apr-10	260	164.55	154.55	-36.71%	-40.56%
4	Intrasoft Technologies Limited	computers - software	537	12-Apr-10	145	159.10	67.05	9.72%	-53.76%
5	Goenka Diamond and Jewels Limited	gems, jewellery and watches	1,265	16-Apr-10	135	127.60	57.90	-5.48%	-57.11%
6	Talwalkars Better Value Fitness Limited	leisure facilities	775	10-May-10	128	163.15	218.70	27.46%	70.86%
7	Nitesh Estates Limited	construction	4,050	13-May-10	54	51.40	26.75	-4.81%	-50.46%
8	Tarapur Transformers Limited	power	638	18-May-10	75	57.40	23.10	-23.47%	-69.20%
9	Mandhana Industries Limited	textile products	1,079	19-May-10	130	133.55	240.60	2.73%	85.08%
10	SJVN Limited	power	10,627	20-May-10	26	25.10	22.20	-3.46%	-14.62%
11	Jaypee Infratech Limited	construction	22,576	21-May-10	102	91.45	58.05	-10.34%	-43.09%
12	Parabolic Drugs Limited	pharmaceuticals	2,000	1-Jul-10	75	64.85	42.75	-13.53%	-43.00%
13	Technofab Engineering Limited	engineering	717	16-Jul-10	240	296.95	153.95	23.73%	-35.85%
14	Hindustan Media Ventures Limited	printing and publishing	2,700	21-Jul-10	166	188.95	133.00	13.83%	-19.88%
15	Aster Silicates Limited	chemicals - inorganic	531	28-Jul-10	118	205.55	24.80	74.19%	-78.98%
16	SKS Microfinance Limited	finance	16,288	16-Aug-10	985	1,088.65	524.05	10.52%	-46.80%
17	Bajaj Corp Limited	personal care	2,970	18-Aug-10	660	758.75	498.35	14.96%	-24.49%
18	Prakash Steelage Limited	steel and steel products	688	25-Aug-10	110	185.35	148.35	68.50%	34.86%
19	Gujarat Pipavav Port Limited	shipping	5,539	9-Sep-10	46	54.05	64.05	17.50%	39.24%
20	Indosolar Limited	electrical equipment	3,570	29-Sep-10	29	23.70	17.05	-18.28%	-41.21%
21	Microsec Financial Services Limited	finance	1,475	5-Oct-10	118	111.35	41.20	-5.64%	-65.08%
22	Career Point Infosystems Limited	computers - software	1,150	6-Oct-10	310	628.15	331.10	102.63%	6.81%
23	Eros International Media Limited	media & entertainment	3,500	6-Oct-10	175	190.25	136.45	8.71%	-22.03%
24	Electrosteel Steels Limited	steel and steel products	2,853	8-Oct-10	11	11.25	8.20	2.27%	-25.45%
25	Orient Green Power Company Limited	power	9,000	8-Oct-10	47	44.70	25.30	-4.89%	-46.17%
26	Ramky Infrastructure Limited	construction	5,300	8-Oct-10	450	387.40	303.40	-13.91%	-32.58%

Contd.

Contd.

Sr. No.	Company Name	Sector	Issue size (₹ mn.)	Date of Listing	Issue Price (₹)	Listing price (₹)	Close Price at end of March 2011	Price Appreciation/ Depreciation on the first day of trading with the issue price	Price Appreciation/ Depreciation at end March 2011 with the issue price
27	Gallantt Ispat Limited	steel and steel products	405	11-Oct-10	50	81.05	72.70	62.10%	45.40%
28	Cantabil Retail India Limited	miscellaneous	1,050	12-Oct-10	135	105.00	38.45	-22.22%	-71.52%
29	Tecpro Systems Limited	engineering	2,679	12-Oct-10	355	405.70	273.35	14.28%	-23.00%
30	VA Tech Wabag Limited	engineering	4,726	13-Oct-10	1310	1,707.95	1,259.10	30.38%	-3.89%
31	Ashoka Buildcon Limited	construction	2,250	14-Oct-10	324	330.75	301.85	2.08%	-6.84%
32	Bedmutha Industries Limited	steel and steel products	918	14-Oct-10	102	179.15	130.30	75.64%	27.75%
33	Commercial Engineers & Body Builders Co Limited	engineering	1,724	18-Oct-10	127	112.90	43.95	-11.10%	-65.39%
34	Oberoi Realty Limited	construction	10,286	20-Oct-10	260	282.90	254.60	8.81%	-2.08%
35	BS TransComm Limited	telecommunication - equipment	1,904	27-Oct-10	248	381.25	86.35	53.73%	-65.18%
36	Gyscoal Alloys Limited	steel and steel products	547	27-Oct-10	71	81.65	14.55	15.00%	-79.51%
37	Prestige Estates Projects Limited	construction	12,000	27-Oct-10	183	193.15	125.50	5.55%	-31.42%
38	Coal India Limited	mining	151,994	4-Nov-10	245	342.55	346.50	39.82%	41.43%
39	Gravita India Limited	mining	450	16-Nov-10	125	209.7	377.65	67.76%	202.12%
40	R.P.P. Infra Projects Limited	construction	488	6-Dec-10	75	68.9	64.65	-8.13%	-13.80%
41	MOIL Limited	metals	12,375	15-Dec-10	375	465.05	394.75	24.01%	5.27%
42	A2Z Maintenance & Engineering Services Limited	engineering	7,762	23-Dec-10	400	328.55	281.30	-17.86%	-29.68%
43	Ravi Kumar Distilleries Limited	brew/distilleries	736	27-Dec-10	64	80.05	35.05	25.08%	-45.23%
44	Punjab & Sind Bank	banks	4,708	30-Dec-10	120	127.15	109.40	5.96%	-8.83%
45	C. Mahendra Exports Limited	gems, jewellery and watches	1,650	20-Jan-11	110	110.75	236.55	0.68%	115.05%
46	Shekhawati Poly-Yarn Limited	textiles - synthetic	360	12-Jan-11	30	47.5	32.35	58.33%	7.83%
47	Omkar Speciality Chemicals Limited	chemicals - speciality	794	10-Feb-11	98	46.45	46.15	-52.60%	-52.91%
48	Acropetal Technologies Limited	computers - software	1,700	10-Mar-11	90	98.45	61.40	9.39%	-31.78%
49	Sudar Garments Limited	textile products	700	11-Mar-11	77	113.1	118.20	46.88%	53.51%
50	Lovable Lingerie Limited	textile products	933	24-Mar-11	205	249.55	245.35	21.73%	19.68%
51	PTC India Financial Services Limited	finance	4,332	30-Mar-11	28	24.9	24.65	-11.07%	-11.96%

Source: NSE

Table 2-8: Performance of IPOs listed on NSE in April 2011–September 2011

Sr. No.	Company Name	Sector	Issue size (₹mn.)	Date of Listing	Issue Price (₹)	Listing price (₹)	Close Price at end of Sep 2011	Price Appreciation/ Depreciation on the first day of trading with the issue price	Price Appreciation/ Depreciation at end Sep 2011 with the issue price
1	Shilpi Cable Technologies Limited	cables - telecom	559	8-Apr-11	69	48.05	12.20	-30.36%	-82.32%
2	Muthoot Finance Limited	financial institution	9,013	6-May-11	175	175.9	164.10	0.51%	-6.23%
3	Paramount Printpackaging Limited	packaging	458	6-May-11	35	27.05	21.40	-22.71%	-38.86%
4	Future Ventures India Limited	finance	7,500	10-May-11	10	8.2	9.25	-18.00%	-7.50%
5	Servalakshmi Paper Limited	paper and paper products	600	12-May-11	29	19.05	6.15	-34.31%	-78.79%
6	Innoventive Industries Limited	steel and steel products	2,174	13-May-11	117	94.05	89.95	-19.62%	-23.12%
7	Sanghvi Forging and Engineering Limited	castings/forgings	369	23-May-11	85	112	25.05	31.76%	-70.53%
8	Aanjaneya Lifecare Limited	pharmaceuticals	1,170	27-May-11	234	311.1	432.10	32.95%	84.66%
9	Timbor Home Limited	consumer durables	233	22-Jun-11	63	91.55	33.00	45.32%	-47.62%
10	Rushil Decor Limited	construction	406	7-Jul-11	72	119.5	174.85	65.97%	142.85%
11	Bharatiya Global Infomedia Limited	computers - software	551	28-Jul-11	82	29.9	12.45	-63.54%	-84.82%
12	Inventure Growth & Securities Limited	finance	819	4-Aug-11	117	206.75	151.35	76.71%	29.36%
13	L&T Finance Holdings Limited	finance	12,450	12-Aug-11	52	50.05	48.15	-3.75%	-7.40%
14	Tree House Education & Accessories Limited	miscellaneous	1,121	26-Aug-11	135	117.6	151.85	-12.89%	12.48%
15	Brooks Laboratories Limited	pharmaceuticals	630	5-Sep-11	100	61.5	23.25	-38.50%	-76.75%
16	TD Power Systems Limited	electrical equipment	2,270	8-Sep-11	256	275.25	256.95	7.52%	0.37%
17	SRS Limited	gems, jewellery and watches	2,030	16-Sep-11	58	33.25	33.40	-42.67%	-42.41%
18	Vaswani Industries Limited	steel and steel products	490	20-Sep-11	49	N.A.	N.A.	N.A.	N.A.
19	PG Electroplast Limited	consumer durables	1,206	26-Sep-11	210	415.3	303.65	97.76%	44.60%

Source: NSE

Book Building through Online IPO System

Book building is essentially a process used in IPOs 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, the NSE has offered an infrastructure for conducting online IPOs through book building. It helps to discover prices as well as the demand for the security to be issued through a process of bidding. The advantages are that (a) the investor parts with his/her money only after the allotment, (b) it eliminates refunds except in the case of direct applications, and (c) it reduces the time taken to process the issue. The ranking of collecting merchant bankers based on the amount collected by them for issues offered to the Indian public in 2010–2011 is provided in Table 2-9. According to the league table, HDFC Bank has been replaced by ICICI Bank at the top position, while Citibank has successfully captured the third position from Standard Chartered Bank.

Table 2-9: League Table of Collecting Bankers

Rank 2010-11	Bank	Amount Collected (₹ mn)		
		2009-10	2010-11	% of Total
1	ICICI Bank Ltd.	338,006	834,821	13.3%
2	HDFC Bank Ltd.	352,749	823,827	13.2%
3	Citibank	11,165	669,203	10.7%
4	HSBC Ltd.	111,223	625,210	10.0%
5	Deutsche Bank AG	2,953	484,901	7.7%
6	State Bank of India	64,345	427,959	6.8%
7	Axis Bank Ltd.	95,148	373,297	6.0%
8	Kotak Mahindra Bank Ltd.	161,477	322,516	5.2%
9	IDBI Bank Ltd.	59,340	284,609	4.5%
10	Corporation Bank	14	279,277	4.5%
11	Standard Chartered Bank Ltd.	211,565	230,969	3.7%
13	Yes Bank Ltd.	14,231	202,126	3.2%
33	Royal Bank of Scotland N. V.	80,220	3,186	0.1%
	Total	**1,529,656.57**	**6,258,682.81**	88.9%

Source: Prime Database

Debt Issues

The government and the corporate sector collectively raised a total of ₹ 7,851,973 million (US $ 175,856 million) from the primary market in 2010–2011. About 74.32 percent of the capital was raised by the government, while the rest was collected by the corporate sector, predominantly through private placement.

Table 2-10: Resources Raised from Debt Markets

Issuer	Issue Amount (₹ mn)			Issue Amount (US $ mn)		
	2009-10	2010-11	Apr-Sep 2011	2009-10	2010-11	Apr-Sep 2011
Corporate	1,919,902	2,016,763	1,072,848	42,532	45,168	21,928
Public Issues	25,000	94,510	46,950	554	2,117	960
Private Placement*	1,894,902	1,922,253	1,025,898	41,978	43,052	20,969
Government	6,236,190	5,835,210	-	138,152	130,688	-
Total	**8,156,092**	**7,851,973**	**1,072,848**	**180,684**	**175,856**	**21,928**

Source: Prime Database (for Private placement); SEBI (for Public issues); and RBI Annual Report 2010–2011 (for government debt)

* *Includes only debt placements with a tenor and put/call option of one year or more*

Private Placement of Debt

According to the Prime Database, a total of 182 issuers (institutional and corporate) raised ₹ 1,922,253 million (US $ 43,052 million) through 831 privately placed issues in 2010–2011. The response to most of the issues was good, as 266 out of 831 issues—i.e., around 32 percent of the total issues—were made by the government sector units, which mobilized 68.75 percent of the total. During the period April-September 2011, there were 96 issuers who placed 450 issues amounting to ₹ 1,025,898 million (US $ 20,969 million). The amount raised through the private placement of debt issues has been on an increasing trend over the past few years (Chart 2-3).

Table 2-11: Private Placement—Institutional and Corporate Debt

Year	No. of issuers	No. of Privately Placed issues	Resource Mobilisation through Private Placement of Debt (₹ 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
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
2008-09	167	799	1,743,267	34,215
2009-10	192	806	1,894,902	41,978
2010-11	**182**	**831**	**1,922,253**	**43,052**
Apr-Sep 2011	**96**	**450**	**1,025,898**	**20,969**

Source:Prime Database

The debt securities were mainly privately placed. Although there were some instances of private placement of equity shares, there was no comprehensive data coverage of these instances. The two sources of information regarding the private placement market in India are the Prime Database and the RBI. The former data set, however, pertains exclusively to debt issues. The RBI data, which is compiled from information gathered from arrangers, covers equity private placements also. The RBI estimates the share of equities in total private placements to be rather insignificant. Some idea, however, can be derived from the equity shares issued by NSE-listed companies on a private placement basis.

Table 2-12: Issuer-wise Distribution of Private Placement of Debt

Issuer	Issue Amount (₹ mn)			Issue Amount (US $ mn)			% of Issue Amount		
	2009-10	2010-11	Apr-Sep 2011	2009-10	2010-11	Apr-Sep 2011	2009-10	2010-11	Apr-Sep 2011
All India Financial Institutions/ Banks	1,085,223	1,162,309	675,835	24,041	26,032	13,814	57.27	60.50	65.88
State Financial Institutions	13,372	14,255	650	296	319	13	0.71	0.74	0.06
Public Sector Undertakings	223,555	124,499	117,179	4,952	2,788	2,395	11.80	6.48	11.42
State Level Undertakings	20,846	19,814	19,595	462	444	401	1.10	1.03	1.91
Private Sector	551,781	600,393	212,639	12,224	13,447	4,346	29.12	31.25	20.73
Total	**1,894,777**	**1,921,270**	**1,025,898**	**41,976**	**43,030**	**20,969**	**100.00**	**100.00**	**100.00**

Source: Prime Database

Chart 2-3: Growth of Private Placement of Debt

Source: Prime Database

The sectoral distribution shows that the banking and financial services sector continued to dominate the private placement market, raising 71 percent in 2010–2011, followed by the power sector, which accounted for 9.90 percent during the year.

Table 2-13: Sectoral Distribution of Resources Mobilized through Private Placement

Sector	2009-10	2010-11	Apr-Sep 2011
Banking	49.49	47.90	48.76
Financial Services	20.73	23.10	25.50
Power	8.69	9.90	8.29
Roads & Highways	1.78	2.03	0.00
Travel/Transportation	0.72	0.39	5.81
Telecommunications	1.68	0.33	0.00
Others	16.90	16.34	11.64
Total	**100.00**	**100.00**	**100.00**

Source: Prime Database

The maturity profile of the issues in the private placement market ranged between 12 months to 360 months in 2010–2011. The highest number of placements was for 36 months (156 placements) and 120 months (122 placements). A total of 50 offers had a put option, while 90 offers had a call option. Rating was, however, required for listing. Of the 831 debt private placements deals in 2010–2011, 797 issues went for credit rating, while 18 did not.

Corporate Sector

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

In 2010–2011, the total resources raised by the corporate sector increased by 5.18 percent to ₹ 2,598,333 million (US $ 58,193 million), compared to the gross mobilization of ₹ 2,470,329 million (US $ 54,726 million) in 2009–2010. The equity route was used to raise 18.73 percent of the total resources through public equity shares. The share of rights issues was 3.66 percent. The resources raised through the debt issues (debt public issues and debt private placements) accounted for 77.62 percent.

Table 2-14: Resources Raised by Corporate Sector

Year	Public Equity Issues (₹ mn)	Rights Issues (₹ mn)	Debt Public Issues (₹ mn)	Debt Private Placements (₹ mn)	Total Resource Mobilisation (₹ mn)	Total Resource Mobilisation (US $ mn)	Percentage Share in the Total Resource Mobilisation			
							Public Equity issues	Rights Issue	Debt Public Issues	Debt Private Placements
2007-08	**522,190**	**325,180**	**10,000**	**1,152,661**	**2,010,031**	**50,288**	25.98	16.18	0.50	57.35
2008-09	**20,830**	**126,370**	**15,000**	**1,743,267**	**1,905,467**	**37,399**	1.09	6.63	0.79	91.49
2009-10	**467,366**	**83,186**	**25,000**	**1,894,777**	**2,470,329**	**54,726**	18.92	3.37	1.01	76.70
2010-11	**486,540**	**95,030**	**94,510**	**1,922,253**	**2,598,333**	**58,193**	18.73	3.66	3.64	73.98
Apr-Sep 2011	**95,590**	**20,880**	**46,950**	**1,025,898**	**1,189,318**	**24,309**	8.04	1.76	3.95	86.26

Source: Prime Database (for private placement); SEBI (for public issues and rights issues)
Note: Includes only debt placements with a tenor and put/call option of one year or more

Annexure 2-1: Details of Private Placement Issues in the equity segment by NSE – listed companies during the period April 01, 2010 to September 30, 2011

Sr. No.	Company Name	No. of Securities issued	Amount Raised (₹ mn)	Par Value (₹)	Issue Price (₹)
1	Birla Cotsyn (India) Limited	968,900,000	1,162.68	1.00	1.20
2	S.E. Investments Limited	24,500,000	1,764.49	2.00	72.02
3	Ashco Niulab Industries Limited	337,795,000	456.02	1.00	1.35
4	Essar Oil Limited	92,844,531	13,369.61	10.00	144.00
5	Kemrock Industries and Exports Limited	4,827,200	2,220.51	10.00	460.00
6	SEL Manufacturing Company Limited	30,000,000	2,072.10	10.00	69.07
7	FCS Software Solutions Limited	500,000,000	1,925.00	1.00	3.85
8	Zenith Birla (India) Limited	54,357,060	1,038.22	10.00	19.10
9	Essar Oil Limited	71,292,951	10,266.18	10.00	144.00
10	Nissan Copper Limited	25,000,000	1,000.00	10.00	40.00
11	Resurgere Mines & Minerals India Limited	31,249,998	2,500.00	10.00	80.00
12	Birla Power Solutions Limited	1,062,192,350	2,496.15	1.00	2.35
13	Jindal Cotex Limited	20,000,000	1,800.00	10.00	90.00
14	Cox & Kings Limited	5,341,003	3,039.94	10.00	569.17
15	Tulsi Extrusions Limited	12,500,000	675.00	10.00	54.00
16	Glory Polyfilms Limited	35,000,000	573.30	10.00	16.38
17	Nu Tek India Limited	40,000,000	1,340.80	5.00	33.52
18	Aksh Optifibre Limited	58,287,500	1,165.75	5.00	20.00
19	Syncom Healthcare Limited	22,500,000	967.50	10.00	43.00
20	Farmax India Limited	21,250,000	531.25	1.00	25.00
21	SEL Manufacturing Company Limited	35,000,000	1,629.60	10.00	46.56
22	Karuturi Global Limited	35,100,000	747.63	1.00	21.30
23	Surya Pharmaceutical Limited	3,856,900	1,118.50	10.00	290.00
24	Bombay Rayon Fashions Limited	16,000,000	4,683.20	10.00	292.70
25	Karuturi Global Limited	12,600,000	268.38	1.00	21.30
26	JSW Steel Limited	3,085,814	4,628.72	10.00	1,500.00
27	Nu Tek India Limited	80,000,000	1,998.40	5.00	24.98
28	Aqua Logistics Limited	94,576,000	2,837.28	1.00	30.00
29	Texmo Pipes and Products Limited	12,550,000	451.80	10.00	36.00
30	Vikash Metal & Power Limited	36,072,000	541.08	10.00	15.00
31	Winsome Yarns Limited	199,412,500	598.24	1.00	3.00
32	Indowind Energy Limited	40,000,000	816.00	10.00	20.40
33	Edserv Softsystems Limited	8,000,000	1,059.92	10.00	132.49
34	Welspun Corp Limited	23,026,000	5,180.85	5.00	225.00

3. Collective Investment Vehicles

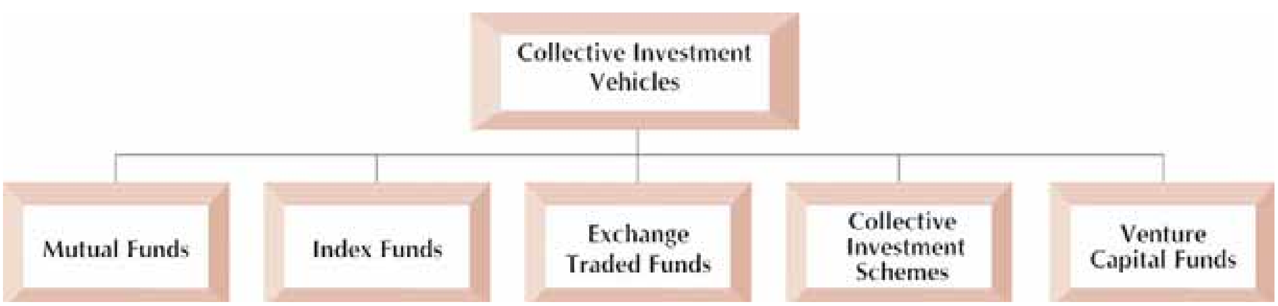
Introduction

A collective investment vehicle (CIV) is any entity that allows investors to pool their money and invest the pooled funds, instead of 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. Collective investment schemes are well established in many jurisdictions, and serve as an investment vehicle for a wide range of investment opportunities around the world.

The International Organization of Securities Commission (IOSCO) in its *Report on Investment Management of the Technical Committee* defined a collective investment scheme (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 five distinct categories of collective investment vehicles in operation, such as mutual funds (MFs), index funds, exchange traded funds, CIS, and venture capital funds (VCFs), which mobilize resources from the market for investment purposes (Chart 3-1). The developments with respect to these five different CIVs in 2010–2011 and in April–September 2011 are discussed in this chapter.

Chart 3-1: Collective Investment Vehicles



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 objectives come together to pool their money and then invest accordingly. The SEBI defines a mutual fund 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 one invests in a MF, one is buying shares (or portions) of the MF, and becomes a shareholder of the fund. Mutual funds are considered a good route to invest and earn returns with reasonable safety. Some of the other major benefits of investing in them include the options of investing in various schemes, diversification, professional management, liquidity, effective regulations, transparency, tax benefits, and affordability.

The Unit Trust of India (UTI) that was created in 1964 was the first MF in India. It enjoyed complete monopoly in MFs until 1986. Other public sector mutual funds were set up by public sector banks and the Life Insurance Corporation of India (LIC) and the 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 after 1988. This move gathered momentum in India after economic liberalization in 1991, and the establishment of the SEBI in 1992.

Policy Developments for Mutual Funds in April, 2010 to September, 2011

Over the past years, SEBI has taken several policy measures to improve the MF industry in India for investor protection, market development, and effective regulation. The policy developments (from April, 2010 to September, 2011) pertaining to mutual funds are enumerated below.

I. Physical verification of gold underlying Gold ETF units to be reported to trustees on half yearly basis

The SEBI, vide its circular dated December 06, 2010, decided that the physical verification of the gold underlying Gold ETF units should be carried out by the statutory auditors of mutual fund schemes. This physical verification of the gold is to form part of the half-yearly report submitted by the trustees to SEBI. This would come into effect from the half-yearly report ending April 2011.

II. Consolidation or merger of schemes

To facilitate the merger of schemes, SEBI (vide its circular dated October 22, 2010) decided that a merger or consolidation shall not be seen as a change in the fundamental attributes of the surviving scheme if:

a) The mutual funds are able to demonstrate that the circumstances merit the merger or consolidation of schemes, and the interests of the unitholders of the surviving scheme are not adversely affected;

b) The fundamental attributes of the surviving scheme (as per the SEBI circular dated February, 1998) do not change.

III. Transferability of mutual fund units

To facilitate the transferability of mutual fund units held in one demat account to another, SEBI (vide its circular dated August 18, 2010) decided that all Asset Management Companies (AMCs) should clarify (by way of an addendum) that the units of all mutual fund schemes held in demat form shall be freely transferable from the date of the issue of said addendum by October 1, 2010. For units of equity linked savings schemes (ELSS), however, the restrictions on transfer during the lock-in period shall continue to be applicable as per the ELSS guidelines.

IV. Review of norms for investment and disclosure by mutual funds in derivatives

In order to have prudential limits for derivative investments by mutual funds and to bring in transparency and clarity in the disclosure of the same to investors, SEBI (vide its circular dated August 18, 2010) notified modifications on investment in derivatives by mutual funds and disclosures thereof in the half-yearly portfolio statement.

Exposure limits

a) The cumulative gross exposure through equity, debt, and derivative positions should not exceed 100 percent of the net assets of the scheme.

b) Mutual funds should not write options or purchase instruments with embedded written options.

c) The total exposure related to option premium paid must not exceed 20 percent of the net assets of the scheme.

d) Cash or cash equivalents with residual maturity of less than 91 days may be treated as not creating any exposure.

e) Exposure due to hedging positions may not be included in the above mentioned limits subject to the following:

   i. Hedging positions are the derivative positions that reduce possible losses on an existing position in securities as long as the existing position remains.

   ii. Hedging positions cannot be taken for existing derivative positions. Exposure due to such positions shall have to be added and treated under the limits mentioned in point 1.

   iii. Any derivative instrument used to hedge has the same underlying security as the existing position being hedged.

   iv. The quantity of underlying associated with the derivative position taken for hedging purposes does not exceed that of the existing position against which the hedge has been taken.

f) Mutual funds may enter into plain vanilla interest rate swaps for hedging purposes. The counterparty in such transactions has to be an entity recognized as a market maker by the RBI. Further, the value of the notional principal in such cases must not exceed the value of the respective existing assets being hedged by the scheme. The exposure to a single counterparty in such transactions should not exceed 10 percent of the net assets of the scheme.

g) Exposure due to derivative positions taken for hedging purposes in excess of the underlying position against which the hedging position has been taken shall be treated under the limits mentioned in point i.

Definition of exposure in the context of derivative positions

a) Each position taken in derivatives shall have an associated exposure as defined below. Exposure is the maximum possible loss that may occur on a position. However, certain derivative positions may theoretically have unlimited possible loss. Exposure in derivative positions shall be computed as follows:

Position	Exposure
Long Future	Futures price * Lot Size * Number of Contracts
Short Future	Futures price * Lot Size * Number of Contracts
Option bought	Option Premium Paid * Lot Size * Number of Contracts

b) Since the disclosures currently made in the half-yearly portfolio disclosure, annual report, or in any other disclosures are not uniform across the industry, the relevant formats of these reports are prescribed under the circular IMD/DF/11/2010.

c) Further, while listing net assets, the margin amounts paid should be reported separately under the cash or bank balances.

All the above provisions would be applicable for all new schemes launched after August 18, 2010. For all existing schemes, compliance with the circular would be effective from October 01, 2010.

V. Certification programme for sale and/or distribution of mutual fund products

The SEBI, vide its circular dated May 31, 2010, decided that distributors, agents, or any persons associated in the sale and distribution of mutual fund products shall be required to pass the certification examination from the National Institute of Securities Markets (NISM). These associated persons shall be exempted from the requirement of the NISM certification examination if they possess a valid certificate of the AMFI mutual fund (Advisors) module (which they passed before June 01, 2010). Further, SEBI (vide its circular dated June 24, 2010) decided that a person holding a valid

AMFI certification whose validity expires between June 01, 2010 and December 31, 2010 would be required to comply with the Continuing Professional Education (CPE) requirements as laid down by NISM. An associated person holding a valid AMFI/NISM certification whose validity expires anytime after December 31, 2010 would be required to comply with these CPE requirements prior to the expiry of the validity of the certification.

VI. Disclosure of investor complaints with respect to mutual funds

Transparency in 'grievance redressal' has been identified as a key area to enhance investor protection. In view of the importance of investors' feedback in improving transparency in the grievance redressal mechanism, SEBI (vide its circular dated May 13, 2010) decided that mutual funds should disclose the details of investor complaints received by them from all sources on their websites, on the AMFI website, as well as in their Annual Reports. All the complaints have been classified into four categories, such as delay/non-receipt of money/statement of account/unit certificate/annual report, service related, and others. Accordingly, mutual funds were advised to upload the report for 2009–2010 by June 30, 2010, and the report for all subsequent financial years within two months of the close of the financial year.

VII. Option to hold units in demat form

The SEBI, vide its circular dated May 19, 2011, asked all AMCs to provide an option to the investors to receive the allotment of mutual fund units in their demat account while subscribing to any scheme (open-ended/close-ended/interval). It was observed that in the case of close-ended schemes, many mutual funds provided an option to hold the units in either physical or demat form, but they offered no such option in the case of open-ended schemes. Therefore, in order to assist investors, mutual funds/AMCs were advised to always provide an option to the investors to mention demat account details in the subscription form in case they desired to hold units in demat form, from October 01, 2011 onwards.

VIII. Indicative portfolio or yield in close ended debt oriented mutual fund schemes

The SEBI decided that mutual funds should not offer any indicative portfolio or indicative yield, and that no communication regarding the same in any manner whatsoever should be issued by any mutual fund or the distributors of its products. In order to enable investors to make a more informed decision regarding the quality of securities and the risks associated with different close-ended debt-oriented schemes, MFs/AMCs may make the following additional disclosures:

a) MFs/AMCs shall disclose their credit evaluation policy for the investments in debt securities.

b) MFs/AMCs shall also disclose the list of sectors in which they would not be investing.

c) MFs shall disclose the type of instruments that the schemes propose to invest in, such as CPs, CDs, Treasury bills.

d) MFs shall disclose the floors and ceilings within a range of 5 percent of the intended allocation (in %) against each sub-asset class/credit rating.

e) After the closure of NFO, in the next meeting of AMCs and trustees, the AMCs will report the publicized percentage allocation and the final portfolio. Variations between the indicative portfolio allocation and the final portfolio will not be permissible.

IX. Mutual fund distributor to be allowed to charge ₹ 100 as transaction charge per subscription

In order to help mutual funds enter the retail segment in smaller towns, the distributor would be allowed to charge ₹ 100 as the transaction charge per subscription. No charge can be made for investments below ₹ 10,000. An additional amount of ₹ 50 can be levied from a first-time mutual fund investor. However, there would be no transaction charges on (a) transactions other than purchases/subscriptions relating to new inflows, and (b) direct transactions with the mutual fund. For SIPs, the transaction charges can be recovered in three or four installments. These transaction charges would be in addition to the existing eligible commissions that are sanctioned to the distributors.

X. A first step towards regulating distributors of mutual funds

As a first step towards regulating the distributors of mutual funds, selected distributors will be regulated through Asset Management Companies (AMCs) by putting in place the due diligence process to be conducted by the AMCs. The due diligence process may be initially applicable for those distributors who satisfy one or more of the following criteria:

a) Multiple point presence in more than 20 locations;

b) AUM raised over ₹ 100 crore across industries in the non-institutional category but including high networth individuals (HNIs);

c) Commission received of over ₹ 1 crore p.a. across industries;

d) Commission received of over ₹ 50 lakh from a single mutual fund.

It is estimated that this measure will cover the distributors handling about half of the total AUM in the industry. The AMCs shall disclose the commissions paid to the distributors meeting one or more of the above criteria, and the AMFI will disclose the aggregate amount of commissions paid to such distributors by the MF industry.

XI. All operations of a mutual fund to be located in India

All the operations of a mutual fund, including trading desks, unitholder servicing, and investment operations, are to be based in India. Mutual funds having any of their operations abroad will be required to confirm immediately that they shall wind up the same and bring them onshore within a period of one year from the notification amending the Regulations. The period is extendable by another one year at SEBI's discretion.

XII. Infrastructure Debt Fund Schemes

The SEBI Board approved a framework for setting up the Infrastructure Debt Funds (IDFs) through the amendment of the SEBI (Mutual Funds) Regulations, 1996 by inserting Chapter VI-B on Infrastructure Debt Fund Schemes. The IDFs can be set up by any existing mutual fund. Applications from companies that have been carrying on activities or business in the infrastructure financing sector for not less than five years and fulfilling the eligibility criteria provided in Regulation 7 of the Mutual Fund Regulations will also be considered for setting up mutual funds exclusively for the purpose of launching the IDF Scheme.

The salient features of the IDF Scheme are:

a) The IDF would invest 90 percent of its assets in the debt securities of infrastructure companies or SPVs across all infrastructure sectors. The minimum investment into IDF would be ₹ 1 crore with ₹ 10 lakh as the minimum size of the unit. The credit risks associated with the underlying securities will be borne by the investors and not by the IDF.

b) A firm commitment from strategic investors to the extent of ₹ 25 crore.

c) An infrastructure debt fund scheme shall be launched either as a close-ended scheme maturing after more than five years or as an interval scheme with a lock-in of five years.

d) Fully paid up units of infrastructure debt fund schemes shall be listed on a recognized stock exchange.

e) An infrastructure debt fund shall have a minimum of five investors, and no single investor shall hold more than 50 percent of the net assets of the scheme.

f) Mutual funds may disclose the indicative portfolio of the infrastructure debt fund scheme to its potential investors by disclosing the type of assets in which the mutual fund will be investing. Mutual funds launching the infrastructure debt fund scheme may issue partly paid units to the investors.

XIII. Investment by foreign investors in mutual fund schemes

Earlier, only FIIs and sub-accounts registered with the SEBI as well as NRIs were allowed to invest in mutual fund schemes. To liberalize the portfolio investment route, it was decided to permit SEBI-registered mutual funds to accept subscriptions from foreign investors who meet the KYC requirements for equity schemes. This would enable Indian mutual funds to have direct access to foreign investors and would widen the class of foreign investors in the Indian equity market. In order to facilitate this, and in consultation with the Government of India and the RBI, it was decided that foreign investors (termed as Qualified Foreign Investors or QFIs) who meet the KYC requirements may invest in the equity and debt schemes of MFs through two routes:

a) Direct route: Holding MF units in a demat account through a SEBI-registered depository participant (DP);

b) Indirect route: Holding MF units via Unit Confirmation Receipt (UCR).

A Qualified Foreign Investor (QFI) shall mean a person resident in a country that is compliant with the Financial Action Task Force (FATF) standards and that is a signatory to the International Organization of Securities Commission's (IOSCO's) Multilateral Memorandum of Understanding, provided that the person is not resident in India, provided further that such person is not registered with SEBI as a Foreign Institutional Investor or Sub-account. The MF shall ensure that systematic investments/transfers/withdrawals and switches are not available to the QFIs. The QFIs can only subscribe or redeem.

The aggregate investments by QFIs under both the routes shall be subject to a total overall ceiling of US $ 10 billion for equity schemes. In addition to this, the aggregate investments by QFIs under both the routes for debt schemes that invest in infrastructure debt with a minimum residual maturity of five years shall be subject to a total overall ceiling of US $ 3 billion within the existing ceiling of US $ 25 billion for FII investment in corporate bonds issued by infrastructure companies. The MF can accept subscriptions from QFIs until the investments by the QFIs under both the routes reaches US $ 8 billion in equity schemes and US $ 2.5 billion in debt schemes, and the remaining limit of US $ 2 billion in equity schemes and US $ 0.5 billion in debt schemes shall be auctioned by SEBI through a bidding process.

XIV. Amendments to the SEBI (Mutual Funds) Regulations, 1996 (Circular Date: September 08, 2011)

In order to ensure cost-effectiveness in printing and dispatching the annual reports or abridged summary, and as a green initiative measure, the AMCs shall communicate to the unitholders (whose email addresses are available with the mutual fund) that henceforth, the scheme's annual reports or abridged summary would only be sent by email. In the case of unitholders whose email addresses are not available with the mutual fund, the AMCs shall communicate to the unitholders to provide their email addresses for registration in their database. The communication in both these cases shall clearly mention that the scheme's annual accounts or abridged summary would henceforth be sent to these email addresses and not as physical copies, and the communication shall also have an option allowing the investors to indicate whether they wish to receive the reports as physical copies.

Market Design of Mutual Funds

Mutual Fund	A mutual fund (MF) is 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 investment in securities, including money market instruments, gold-related instruments, or real estate assets.
STRUCTURE OF MUTUAL FUNDS: A typical MF in India has the following constituents:	
Fund Sponsor	A fund 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 the case of an existing MF, for such funds that are in the form of a trust and the trust deed has been approved by the Board, the sponsor should contribute at least 40 percent of the net worth of the AMC (provided that any person who holds 40 percent 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	Trustees mean the Board of Trustees or the Trustee Company who hold the property of the mutual fund in trust for the benefit of the unitholders. The MF can be managed either 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 the trustees are independent individuals, who are not associated with the sponsors in any manner whatsoever. Since the trustees are the primary guardians of the unitholders' funds and assets, they have to be individuals of high repute and integrity. The trustees, however, do not directly manage the portfolio of an MF. It is managed by the AMC as per the defined objectives, in accordance with the trust deed and the SEBI (MF) Regulations.
Asset Management Company (AMC)	The AMC, which is appointed by the sponsor or the Trustees and is approved by SEBI, acts as the investment manager of the Trust. The AMC should have at least a net worth of ₹ 10 crore. It functions under the supervision of its Board of Directors, Trustees, and the SEBI. In the name of the trust, the AMC floats and manages different investment 'schemes' as per the SEBI Regulations and the Investment Management Agreement signed with the trustees. The Regulations require a non-interfering relationship between the fund sponsors, trustees, custodians, and the AMC. The AMC is required to obtain prior in-principle approval from the recognized stock exchange(s) where the units are proposed to be listed.
Custodians	A custodian is appointed for safekeeping the securities, gold-related instruments, or other assets and for participating in the clearing system through the approved depository. The custodian also records information on stock splits and other corporate actions. No custodian in which the sponsor or its associate holds 50 percent or more of the voting rights of the share capital of the custodian or where 50 percent or more of the directors of the custodian represent the interests of the sponsor or its associates should act as the custodian for a mutual fund constituted by the same sponsor or any of its associates or subsidiary companies.
Registrar and Transfer Agent	The registrar and transfer agent maintains the records of the unitholder's account. A fund may choose to hire an independent party registered with SEBI to provide such services or may carry out 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 the mutual fund. Most of the communication between these two parties takes place through the registrar and transfer agent.
Distributors/Agents	To send their products across the length and breadth of the country, mutual funds use the services of distributors/agents. Distributors consist of banks, non-banking financial companies, and other distribution companies.
Registration of Mutual Funds	In order to register with SEBI as an MF, the sponsor has to make an application to SEBI. The sponsor should fulfill the eligibility criteria as prescribed by SEBI.
Regulation of Funds	The MFs are regulated under the SEBI (MF) Regulations, 1996. All the MFs have to be registered with SEBI. The Regulations specify a detailed procedure for the launching of schemes, disclosures in the offer document, advertisements, listing and repurchase of close-ended schemes, offer period, transfer of units, and investments, among others. In addition, the **RBI** also supervises the operations of bank-owned MFs. While the SEBI regulates all the market-related and investor-related activities of the bank/FI-owned funds, any issues concerning the ownership of the AMCs by banks fall 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 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. The MFs, being Public Trusts, are governed by the **Indian Trust Act, 1882**, and are accountable to the office of the Public Trustee, which in turn reports to the Charity Commissioner, which enforces the provisions of the Indian Trusts Act.
Advertisements Code by MFs	As per the MF regulations, advertisements should be truthful, fair, and clear, and should not contain any statement/promise/forecast that is untrue or misleading. The sales literature should also contain information that 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. The excessive use of technical/legal jargons or complex language and the inclusion/exclusion of excessive details that are likely to detract the investors should be avoided. Moreover, 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 and Borrowing	– A mutual fund scheme should not invest more than 15 percent of its NAV in debt instruments issued by a single issuer, which are rated not below investment grade by a credit rating agency authorized to carry out such activity under the Act. This investment limit may be extended to 20 percent 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. • No mutual fund is allowed to invest more that 30 percent of its net assets in money market instruments of an issuer; however, this is not applicable for investments in G-secs, T-bills, Collateralized borrowing, and lending obligations. • Further, that investment within such limit can be made in mortgage-backed securitized debts that are rated not below investment grade by a credit rating agency registered with SEBI. – A mutual fund scheme should not invest more than 10 percent of its NAV in unrated debt instruments issued by a single issuer, and the total investment in such instruments should not exceed 25 percent 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 the AMC. – No mutual fund under all its schemes should own more than 10 percent 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 a spot basis. 'Spot basis' has the same meaning as specified by a stock exchange for spot transactions. • The securities so transferred should be in conformity with the investment objective of the scheme to which such a transfer has been made.

- A scheme may invest in another scheme under the same AMC or any other MF without charging any fees, provided that the aggregate inter scheme investment made by all the schemes under the same management or in the schemes under the management of any other AMC should not exceed 5 percent of the NAV of the mutual fund. However, this is not applicable to any fund of funds scheme.
- Every mutual fund should buy and sell securities on the basis of deliveries, and in all cases of purchases, should take delivery of relative securities, and in all cases of sale, should deliver the securities**. A mutual fund 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 mutual fund may enter into derivatives transactions in a recognized stock exchange, subject to the framework specified by the Board. Provided further that the sale of government securities already contracted for purchase shall be permitted in accordance with the guidelines issued by the RBI 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 the investments are intended to be of a long-term nature.
- Pending the deployment of the 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 that is in excess of 25 percent 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 percent of its NAV in the equity shares or equity-related instruments of any company. The limit of 10 percent should not be applicable for investments in the case of index funds or sector- or industry-specific schemes.
- A mutual fund scheme should not invest more than 5 percent of its NAV in the unlisted equity shares or equity-related instruments in the case of an open-ended scheme, and 10 percent of its NAV in the case of a 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 the funds required for meeting the liquidity requirements for the purpose of repurchases or redemptions, as disclosed in the offer document of the fund of funds scheme.

TYPES OF MFs/SCHEMES: A wide variety of MFs/Schemes caters to the different preferences of the investors based on their financial position, risk tolerance, and returns expectations.

All schemes of a mutual fund are 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 that are adequate in order to enable the investors to make informed investment decisions. The advertisements 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 statements or opinions that are incorrect or false.	
Funds by Structure/Tenor	
Open-ended Scheme	An open-ended scheme means any scheme of a mutual fund that offers units for sale without specifying any duration for redemption.
Close-ended Scheme	A close-ended scheme means any scheme of a mutual fund in which the period of maturity of the scheme is specified. Every close-ended scheme other than an equity linked savings scheme is required to be listed on a stock exchange within such time period, and is subject to such conditions as specified by SEBI. **Listing of Close-ended schemes**: Other than equity linked saving schemes, all close-ended schemes are required to be listed on a recognized stock exchange within such time period, and are subject to such conditions as specified by SEBI. The listing of close-ended schemes launched prior to the commencement of the SEBI (Mutual Funds) (Amendment) Regulations, 2009 is not mandatory. The listing of close-ended schemes is not mandatory if the said scheme provides a periodic repurchase facility to all the unitholders with restrictions, if any, on the extent of such repurchase; or if the said scheme provides for monthly income or caters to special classes of persons like senior citizens, women, children, widows, or physically handicapped or provides any special class of persons the facility 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 units of a close-ended scheme, other than equity linked saving schemes, launched on or after the commencement of the SEBI (Mutual Funds) (Amendment) Regulations, 2009 shall not be repurchased before the end of the maturity period of the scheme. The units of a close-ended scheme may be open for sale or redemption at fixed pre-determined 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 a close-ended scheme can be converted into those of an open-ended scheme if the offer document of the scheme discloses the option and the period of such conversion, or if the unitholders are provided with an option to redeem their units in full and the initial issue expenses of the scheme have been amortized fully in accordance with the tenth schedule of the SEBI Mutual Fund Regulations, 1996.
Assured return schemes	This kind of fund assures a specific return to the unitholders irrespective of the performance of the scheme, which are fully guaranteed either by the sponsor or the AMC.
Interval Fund	This kind of fund combines the features of open-ended and close-ended schemes, making the fund open for sale or redemption at pre-determined intervals.
Funds by Investment objective/Asset class	
Equity/Growth schemes	Equity/Growth oriented schemes provide capital appreciation over medium- to long-term by investing a major part of their corpus in equities.
Debt or income schemes	Debt/Income 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 Funds	Balanced Funds provide both growth and regular income in equities and fixed income securities in the specified proportion as indicated in their offer documents.
Liquid Funds	Money market or liquid funds provide easy liquidity and preserve capital, but generate 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.
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 that would invest in gold and gold-related instruments. Mutual funds have also been permitted to invest in real estate since May 2008.
Sector Funds	Sector funds invest in securities of only specific sectors or industries such as pharmaceutical, software, energy, banking etc.
Fund of Funds	A fund of funds (FoF) is a scheme that invests primarily in other schemes of the same mutual fund or other mutual funds. An FoF scheme enables the investors to achieve greater diversification through one scheme.

Index Funds

Index funds replicate the portfolio of a particular index such as the S&P CNX Nifty. 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. The value of the fund is linked to the chosen index, so that if the index rises, the value of the fund will also rise. Conversely, if the index falls, so will the value of the fund.

Unlike a typical MF, index funds do not actively trade stocks throughout the year. At times, they may hold their stocks for the full year, even if there are changes in the composition of the index; this reduces transaction costs. Index funds are considered appropriate for conservative long-term investors who are looking at moderate risks and moderate returns arising out of a well-diversified portfolio. Since index funds are passively managed, the bias of the fund managers in stock selection is reduced, and yet provides returns at par with the index.

Exchange-Traded Funds

An ETF refers to a diversified basket of securities that is traded in real time like an individual stock on an exchange. Unlike regular open-ended mutual funds, ETFs can be bought and sold throughout the trading day like any other stock. An ETF is similar to an index fund, but the ETFs can invest in either all of the securities or a representative sample of the securities included in the index. Exchange-traded funds first came into existence in the USA in 1993. About 60 percent of the trading volumes on the American Stock Exchange are from ETFs. The most popular ETFs are QQQs (Cubes) based on the Nasdaq-100 Index, SPDRs (Spiders) based on the S&P 500 Index, iSHARES based on the MSCI Indices, TRAHKs (Tracks) based on the Hang Seng Index, and DIAMONDs based on the Dow Jones Industrial Average (DJIA). The average daily trading volume in QQQs is around 89 million shares.

Like index funds, ETFs are also passively managed funds, wherein subscription/redemption of units implies exchange with underlying securities. Since these are exchange traded, units can be bought and sold directly on the exchange; hence, the 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 the inflows and outflows of short-term investors. An ETF is highly flexible and can be used as a tool for gaining instant exposure to the equity markets.

A gold ETF (GETF) 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 that 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 metal. The GETF aims at providing returns that closely correspond to the returns provided by gold.

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 a CIS and an MF regarding the pooling of savings and issuing of securities, they differ in their investment objectives. While an MF invests exclusively in securities, a CIS confines its investments to plantations and real estate. Any entity proposing to operate as a Collective Investment Management Company (CIMC) has to apply for registration with SEBI.

The CIS is well established in many jurisdictions, serving as an investment vehicle for a wide range of investment opportunities around the world.

Guidelines under CIS Regulations

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

i. The 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 the management of the CIS as one of its objectives.

ii. The company at the time of registration as CIMC should have a minimum net worth of ₹ 5 crore (provided that at the time of making the application, the applicant should have a minimum net worth of ₹ 3 crore, which should be increased to ₹ 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 more than 90 days.

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

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

vi. Advertisements for every single scheme should conform to the SEBI's advertisement code.

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

viii. The units of every scheme should be listed immediately after the date of allotment of the 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 wound up on the expiry of duration specified in the scheme or on the accomplishment of the purpose of the scheme. The scheme can also be wound up if the unitholders of a scheme holding three-fourth of the nominal value of the unit capital pass a resolution to that effect; if in the opinion of the CIMC, the purpose of the scheme cannot be accomplished, then through the approval of at least three-fourths of the nominal value of the unit capital of the scheme, the scheme can be wound up. However, for winding up the schemes, approval has to be obtained from SEBI. Further, if in SEBI's opinion the continuation of the scheme would be prejudicial to the interest of the unitholders, then the scheme can be wound up. When a scheme is to be wound up, the trustee should give notice disclosing the circumstances leading to such a decision in a daily newspaper having nationwide circulation and in a newspaper published in the language of the region where the Collective Investment Management Company is registered.

x. The trustee should dispose of the assets of the scheme concerned in the best interests of the unitholders of that scheme. If the scheme is wound up because of any event that 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 provisions for meeting the expenses connected with such winding up, the balance should be paid to the unitholders in proportion to their unit holding.

xi. After completion of winding up, the trustees have to forward to SEBI and the unitholders the report on the steps taken for the realization of assets of the scheme, the expenses for winding up, and the net assets available for distribution to the unitholders, together with 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.

xii. 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 meeting investors' claims, and thereafter, should be transferred to an investor protection fund, as may be specified by SEBI.

xiii. On behalf of the scheme, before the expiry of one month from the close of each quarter (i.e., March 31, June 30, September 30, and December 31), the CIMC should publish its unaudited financial results in one daily newspaper having nationwide circulation and in a regional newspaper of the region where the head office of the CIMC is situated.

As on September 30, 2011, there were two CIS entities registered with SEBI.

Venture Capital Funds

A venture capital fund (VCF) is a fund established in the form of a trust or a company, including a corporate body, having a dedicated pool of capital raised in the specified manner, and invested in venture capital undertakings (VCUs). A VCU is a domestic company whose shares are not listed on a stock exchange, and is engaged in a business for providing services, production, or the manufacture of articles. A company or corporate body that wishes 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 (Indian, foreign, or non-resident Indian) through the issue of units. No VCF set up as a company or any scheme of a VCF set up as a trust should accept any investment from any investor that is less ₹ 0.5 million (₹ 5 lakh). However, this does not apply to investors who are employees or the principal officer or directors of the VCF, or directors of the trustee company or trustees where the VCF has been established as a trust, or the employees of the fund manager or the AMC. Each scheme launched or set up by a VCF should have a firm commitment from the investors for the contribution of an amount of at least ₹ 50 million (₹ 5 crore) before the start of the operations by the VCF.

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

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

Investment Conditions and 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 percent of the fund in any one VCU.

ii. The VCF may invest in the securities of foreign companies subject to such conditions or guidelines that may be stipulated or issued by the RBI and SEBI from time to time.

iii. A VCF cannot invest in associated companies.

iv. A VCF should make investments as enumerated below:

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

b. Not more than 33.33 percent of the investible funds may be invested by way of

a) Subscription to the Initial Public Offer (IPO) of a VCU whose shares are proposed to be listed;

b) Debt or debt instruments of a VCU in which the VCF has already made an investment by way of equity;

c) Preferential allotment of equity shares of a listed company subject to a lock-in-period of one year;

d) 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 that has at the end of the previous financial year accumulated losses, which have resulted in the erosion of more than 50 percent but less than 100 percent of its net worth as disclosed at the beginning of the previous financial year.

e) Special Purpose Vehicles (SPVs) that are created by a VCF for facilitating or promoting investment in accordance with these Regulations.

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

v. The VCF should disclose the duration of the life cycle of the fund.

Prohibition on Listing:

No VCF is entitled to get its units listed on any recognized stock exchange until the expiry of three years from the date of issue of the units by the VCF.

Box 3-1: SEBI (Alternative Investment Funds) Regulations 2011

On August 1, 2011, the Securities and Exchange Board of India (SEBI) issued a concept paper discussing the proposed introduction of the SEBI (Alternative Investment Funds) Regulations, 2011 (AIF Regulations) for public comments. At present, the Investment Management Regulation is limited to the Mutual Fund Regulation, the Collective Investments Schemes Regulations, the Venture Capital Funds Regulation, and the Regulation of Portfolio Managers. There is a need to recognize Alternative Investment Funds (AIF) such as PEs or VCs as asset classes that are distinct from promoter holdings, creditors, and public investors.

The salient provisions of the proposed SEBI (Alternative Investment Fund) Regulations that would register and regulate the formation of investment funds, which raises capital from a number of high net worth investors with a view to investing in accordance with a defined investment policy for the benefit of those investors are as follows:

- The SEBI (Venture Capital Funds) Regulations, 1996 shall be replaced by the SEBI (AIF) Regulations, 2011.
- All categories of AIFs such as a) **Private Equity Fund**, b) **Venture Capital Fund**, c) **Private Investment in Pubic Equity (PIPE) Fund**, d) **Debt Fund**, e) **Infrastructure Fund**, f) **Real Estate Fund**, g) **Social Venture Fund**, h) **Small and Medium Enterprises (SMEs) Fund**, and i) **Strategy Fund** are mandatorily required to obtain a certificate of registration from the SEBI. The funds already registered under the VCF Regulations would continue to be regulated by the same regulations until the existing fund or scheme is wound up.
- The AIF will be required to state the size of the fund, its investment strategy, investment purpose, and business model in an information memorandum to the investors.
- The minimum size of the AIF has to be ₹ 200 million. However, the fund size can be revised upward (up to 25 percent) after providing suitable reasons to the SEBI. The minimum investment amount would be specified as

0.1 percent of the fund size, subject to a minimum floor of ₹ 10 million. The AIF Regulations require the sponsor of the fund to commit to invest at least 5 percent of the fund, which shall be locked-in till the redemption by all investors.

- All AIFs are required to be close-ended, and the duration of the fund shall be determined at the time of registration. The tenure of the fund shall be for a minimum period of five years, and an extension of up to two years may be granted if consent for such extension is obtained from 75 percent of the beneficiaries. The fund has to be liquidated within one year following the maturity of the fund term, and all unliquidated investments need to be acquired by the AIF's sponsor.
- The AIFs are not permitted to invest in (i) NBFC (excluding Infrastructure Finance Company, Asset Finance Company, Core Investment Company, or companies engaged in microfinance activity, if the AIF is not a strategy fund), (ii) gold financing, (iii) activities not permitted under the Industrial Policy of the Government of India, and (iv) any other activity that may be specified by the SEBI. An AIF that has been granted registration under a particular category cannot change its category after registration. An AIF shall not invest more than 25 percent of the fund in one investee company.

Market Outcome

Resource Mobilization

The MF vehicle is quite popular with investors who are wary of directly investing in the securities markets. The popularity of MFs as an investment avenue is clearly visible from the data presented in Table 3-1. The MFs in India have primarily been sponsored by government, banks, and FIs. Thus, the MF schemes of the commercial banks and the insurance companies that entered the market in 1987 were well received. The boom continued into the 90s with liberalization evoking positive responses from the investors. The resource mobilizations by MFs remained steady during 1992–1995, with the annual gross mobilization averaging ₹ 110,000 million per annum during the period. However, the MFs were hit severely by the bearish sentiments in the secondary market since October 1994.

The years 1995–1996 and 1996–1997 witnessed net outflows of funds from MFs. The MF industry managed to mobilize modest sums during the next two financial years. It was in the late 90s and first few years of the next decade that the MF industry witnessed a sharp turnaround, with a record resource mobilization amounting to ₹ 199,530 million. Tax sops announced in the Union Budget 1999–2000 and the emergence of bullish trends in the secondary market fuelled the recovery. The year 2000–2001 witnessed a slowdown once again, with the net resource mobilization by all MFs taken together aggregating ₹ 71,370 million, which could be attributed to a slump in the secondary market and the increase in the tax on income distributed by debt-oriented MFs. In 2002–2003, the resource mobilization by all MFs together aggregated to a further low of ₹ 45,800 million, with UTI having a net outflow of ₹ 94,340 million. The fiscal years 2003–2004 and 2004–2005 witnessed a sharp rise in the net resources mobilized compared to the previous year, aggregating ₹ 476,840 million and ₹ 468,090 million, respectively. The same trend continued in the fiscal year 2005–2006, as the net resources mobilized were ₹ 527,790 million. The performance of the private sector MFs was also consistent as compared to the previous year—they mobilized ₹ 429,770 million.

The maximum resource mobilization was witnessed in 2007–2008, which saw investments to the tune of ₹ 1,538,020 million coming to the mutual fund industry, compared to ₹ 939,850 million attracted by the industry in 2005–2006. Due to the global crisis, the resources mobilized by the industry have been quite volatile for the last couple of years. The fiscal year 2008–2009 witnessed a sharp drop in the net resources mobilized compared to the previous year, aggregating ₹ -282,967 million, as private sector MFs witnessed a net outflow of ₹ 340,180 million. The trend was reversed in 2009–2010; as the net resources mobilized were ₹ 830,801 million. The year 2010–2011 witnessed a slowdown once again, with the net resource mobilization by all the MFs taken together aggregating ₹ -494,060 million, which could be attributed to a net outflow of ₹ 367,060 million witnessed by the income-oriented MFs compared to the net inflow of ₹ 965,780 million in 2009–2010.

Table 3-1: Resource Mobilisation by Mutual Funds

Year	Public Sector MFs			Private Sector MFs	Grand Total	
	Bank sponsored	FI sponsored	UTI		(₹ mn.)	(US $ mn.)
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	1,700	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
2007-08	---------------------204,980----------------------			1,333,040	1,538,020	38,479
2008-09	----------------------57,213----------------------			-340,180	-282,967	-5,554
2009-10	----------------------281,520----------------------			549,281	830,801	18,405
2010-11	-301,910			-192,150	-494,060	-11,065

Source: RBI

Number of Mutual Funds and New Fund Offers

As on March 31, 2011, the number of MFs registered with the SEBI was 51; it remained 51 till the end of September 2011. As against the 882 schemes in 2009–2010, there were 1,131 mutual fund schemes as on March 31, 2011, of which 679 were income/debt-oriented schemes, 376 were growth/equity-oriented schemes, and 33 were balanced schemes. In addition, there were 28 exchange-traded funds and 16 schemes operating as fund of funds. The aggregate sales of all the schemes amounted to ₹ 88,595,150 million, and the redemptions during the year equalled ₹ 89,089,210 million (Table 3-2).

Table 3-2: Accretion of Funds with Mutual Funds

Category		2009-10				2010-11				Assets Under Management			
		Sale (₹ mn)	Purchase (₹ mn)	Net (₹ mn)	Net (US $. mn)	Sale (₹ mn)	Purchase (₹ mn)	Net (₹ mn)	Net (US $. mn)	March-09 (₹ mn)	March-10 (₹ mn)	March-11 # (₹ mn)	March-11 (US $ mn)
A	Bank Sponsored	14,279,900	14,034,210	245,690	5,443	15,546,740	15,683,960	(137,220)	(3,073)	645,590	1,125,350	1,227,980	27,502
i.	Joint Ventures - Predominantly Indian	4,515,330	4,439,050	76,280	1,690	6,124,400	6,116,180	8,220	184	261,460	440,070	494,960	11,085
ii.	Joint Ventures-Foreign	946,060	933,180	12,880	285	889,030	894,230	(5,200)	(116)	6,120	20,770	25,850	579
iii.	Others	8,818,510	8,661,980	156,530	3,468	8,533,310	8,673,550	(140,240)	(3,141)	378,010	664,510	707,170	15,838
B	Institutions	9,871,550	9,822,840	48,710	1,079	4,708,200	4,878,080	(169,880)	(3,805)	178,250	251,050	111,950	2,507
C	Private Sector (i+ii+iii+iv)	76,038,780	75,502,370	536,410	11,883	68,340,210	68,527,170	(186,960)	(4,187)	3,349,160	4,763,390	5,665,450	126,886
i.	Indian	36,873,550	36,622,710	250,840	5,557	32,953,490	33,074,940	(121,450)	(2,720)	1,301,480	1,869,800	2,410,480	53,986
ii.	Joint Ventures-Predominantly Indian	34,009,120	33,671,050	338,070	7,489	29,708,550	29,720,000	(11,450)	(256)	1,532,620	2,252,480	2,540,450	56,897
iii.	Joint Ventures - Predominantly Foreign	2,863,120	2,933,490	(70,370)	(1,559)	2,649,960	2,696,020	(46,060)	(1,032)	202,160	187,640	167,730	3,757
iv	Foreign	2,292,990	2,275,120	17,870	396	3,028,210	3,036,210	(8,000)	(179)	312,900	453,470	546,790	12,246
Grand Total (A+B+C)		100,190,230	99,359,420	830,810	18,405	88,595,150	89,089,210	(494,060)	(11,065)	4,173,000	6,139,790	7,005,380	156,895

Source: AMFI Updates
 # Average assets under management for the quarter Jan-Mar 11

Table 3-3: Accretion of Funds with Mutual Funds (April–June 2011)

Category			April 11 - June 11				Assets Under Management at the end of	
			Sale (₹ mn)	Purchase (₹ mn)	Net (₹ mn)	Net (US $. mn)	June - 11 (₹ mn)	June - 11 (US $ mn)
A	Bank Sponsored		3,407,660	3,294,810	112,850	2,307	1,354,570	27,686
	i.	Joint Ventures - Predominantly Indian	1,320,940	1,290,270	30,670	627	567,980	11,609
	ii.	Joint Ventures- Predominantly Foreign	149,380	138,320	11,060	226	44,300	905
	ii.	Others	1,937,340	1,866,220	71,120	1,454	742,290	15,172
B	Institutions		155,560	167,220	-11,660	-238	93,380	1,909
C	Private Sector (i+ii+iii+iv)		15,741,780	15,112,580	629,200	12,860	5,987,070	122,372
	i.	Indian	7,897,140	7,582,350	314,790	6,434	2,588,540	52,908
	ii.	Joint Ventures- Predominantly Indian	6,870,350	6,600,410	269,940	5,517	2,692,890	55,041
	iii.	Joint Ventures - Predominantly Foreign	335,700	320,220	15,480	316	172,750	3,531
	iv	Foreign	638,590	609,600	28,990	593	532,890	10,892
Grand Total (A+B+C)			19,305,000	18,574,610	730,390	14,929	7,435,020	151,967

Source: AMFI Updates

Chart 3-2: Assets under Management at the end of March 2011

Source: AMFI

Institution-wise Resource Mobilization

The resource mobilization through the route of mutual funds is done broadly by three categories, namely, banks, private sector, and institutions. The structure of the institution-wise resource mobilization is depicted in Table 3-2 and Table 3-3, which gives the details of the sales, purchases (redemptions), and assets under management.

The private sector MFs accounted for 77.14 percent of the resource mobilization (sales) by the MF industry in 2010–2011. These private sector MFs witnessed a net outflow of ₹ 186,960 million (US $ 4,187 million) in 2010–2011, compared to a net inflow of ₹ 536,410 million (US $ 11,883 million) in 2009–2010.

In 2010–2011, bank-sponsored MFs mobilized resources worth ₹ 15,546,740 million, which was 8.87 percent higher than the resource mobilization in 2009-10 (₹ 14,279,900 million). The bank-sponsored schemes accounted for 17.55 percent of the gross resource mobilization in 2010–2011. In net terms, the bank-sponsored MFs witnessed an outflow of ₹ 137,220 million (US $ 3,073 million) in 2010–2011.

Resource Mobilization as per Maturity Period/Tenor

The share of open-ended schemes in the total sales of mutual funds in 2010–2011 continued to dominate over the other schemes (such as close-ended and interval funds). The share of open-ended schemes in the total sales of mutual funds was 97.81 percent in 2010–2011, as compared to its share of 99.57 percent in 2009–2010. Close-ended schemes saw a year-on-year increase in sales of 404.38 percent in 2010–2011 over the previous fiscal year. The details of the sales and redemptions of the mutual funds based on their tenor for 2009–2010 and 2010–2011, and the first quarter of 2011–2012 are presented in Table 3-4 and Table 3-5, respectively.

Resource Mobilization as per Investment Objective

The liquid/money market schemes have become very popular among investors due to the attractive returns delivered by them. They accounted for 74.49 percent of the gross resource mobilization in 2010–2011. During the current fiscal year, the sale as well as repurchase was the highest in the case of these schemes, resulting in a net outflow of ₹ 35,200 million (US $ 7,788 million). The liquid/money market schemes continued to perform better in the first quarter of 2011–2012, with a net inflow of ₹ 618,220 million.

The income/debt-oriented schemes that provide regular and steady income to investors by investing in fixed income securities such as bonds, corporate debentures, government securities, and money market instruments were also popular among investors, and accounted for 24.53 percent of the total sales of all the schemes in 2010–2011. These schemes witnessed the highest net outflow of ₹ 367,060 million (US $ 8,221 million).

The growth scheme was the second highest in terms of net outflows, and accounted for 27.13 percent of the net resources raised. The scheme-wise resource mobilization by MFs for 2009–2010, 2010–2011, and for the first quarter of 2011–2012 is depicted in Table 3-5.

Assets under Management

As on March 31, 2011, the MFs have managed assets totaling ₹ 5,922,500 million (US $ 132,643 million). As shown in Table 3-2, the share of private sector MFs in the total assets increased to 80.87 percent for the quarter ending March 2011, from 77.58 percent in March 2010. The open-ended schemes and the close-ended schemes accounted for 75.51 percent and 21.43 percent, respectively, of the total assets under management of MFs (Chart 3-2) at the end of March 2011.

The income schemes accounted for 49.30 percent of the total assets under management at the end of March 2011, followed by the equity schemes with 28.66 percent. The liquid/money market schemes accounted for 12.44 percent of the assets under management of MFs (Chart 3-2).

Mutual Fund Service System (MFSS)

In November 2009, the SEBI allowed transactions in mutual fund schemes through the Stock Exchange infrastructure.

Table 3-4: Resource Mobilisation by Mutual Funds- based on the Tenor of the Scheme

Scheme	2009-10				2010-11				2011-12 (April - June 2011)			
	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase	Sale	Purchase
	(₹ mn.)		(US $ mn.)		(₹ mn.)		(US $ mn.)		(₹ mn.)		(US $ mn.)	
Open-ended	99,763,640	98,697,360	2,210,094	2,186,472	86,657,260	87,889,450	1,940,812	1,968,409	19,034,720	18,161,830	389,057	371,216
Close-ended	255,510	616,820	5,660	13,665	1,288,740	572,160	28,863	12,814	225,260	296,710	4,604	6,065
Interval fund	171,080	45,240	3,790	1,002	649,150	627,600	14,539	14,056	45,020	116,070	920	2,372
Total	**100,190,230**	**99,359,420**	**2,219,544**	**2,201,139**	**88,595,150**	**89,089,210**	**1,984,214**	**1,995,279**	**19,305,000**	**18,574,610**	**394,581**	**379,652**

Source : AMFI Updates

Table 3-5: Scheme-wise Resource Mobilisation by Mutual Funds

Scheme	2009-10				2010-11				2011-12 (April - June 2011)			
	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)	Sale	Purchase	Net Inflow/ (Outflow)	Net Inflow/ (Outflow)
	(₹ mn.)			(US $ mn.)	(₹ mn.)			(US $ mn.)	(₹ mn.)			(US $ mn.)
Income	28,959,010	27,993,230	965,780	21,395	21,728,600	22,095,660	(367,060)	(8,221)	2,694,280	2,592,420	101,860	2,082
Growth	611,140	605,190	5,950	132	631,420	765,470	(134,050)	(3,002)	137,630	132,730	4,900	100
Balanced	46,930	53,860	(6,930)	(154)	74,900	61,460	13,440	301	14,000	10,800	3,200	65
Liquid/ Money Market	70,448,180	70,568,910	(120,730)	(2,675)	65,997,240	66,032,440	(35,200)	(788)	16,415,970	15,797,750	618,220	12,636
Gilt	39,740	72,710	(32,970)	(730)	44,500	45,660	(1,160)	(26)	6,900	9,690	(2,790)	(57)
ELSS-Equity	36,010	20,470	15,540	344	34,500	31,840	2,660	60	5,200	9,570	(4,370)	(89)
GOLD ETFs	9,970	1,930	8,040	178	28,430	5,930	22,500	504	11,720	2,300	9,420	193
Other ETFs *	25,380	25,580	(200)	(4)	48,670	34,790	13,880	311	13,850	17,160	(3,310)	(68)
Funds of Funds Investing Overseas **	13,870	17,540	(3,670)	(81)	6,890	15,960	(9,070)	(203)	5,450	2,190	3,260	67
Total	**100,190,230**	**99,359,420**	**830,810**	**18,405**	**88,595,150**	**89,089,210**	**(494,060)**	**(11,065)**	**19,305,000**	**18,574,610**	**730,390**	**14,929**

* *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

Table 3-6: Assets under Management

Scheme	At the end of March 2011						At the end of June 2011					
	Open Ended	Close Ended	Interval Fund	Total	Total	% to total	Open Ended	Close Ended	Interval Fund ***	Total	Total	% to total
	(₹ mn.)				(US $ mn)		(₹ mn.)				(US $ mn)	
Income	1,532,210	1,206,100	181,440	2,919,750	65,392	49.30%	1,793,940	1,149,800	111,920	3,055,660	62,456	45.39%
Equity	1,676,200	21,210	130	1,697,540	38,019	28.66%	1,669,780	19,880	-	1,689,660	34,536	25.10%
Balanced	173,600	10,850	-	184,450	4,131	3.11%	175,580	-	-	175,580	3,589	2.61%
Liquid/Money Market	736,660	-	-	736,660	16,499	12.44%	1,425,670	-	-	1,425,670	29,140	21.18%
Gilt	34,090	-	-	34,090	763	0.58%	32,730	-	-	32,730	669	0.49%
ELSS	224,880	30,810	-	255,690	5,727	4.32%	221,030	28,110	-	249,140	5,092	3.70%
Gold ETF	44,000	-	-	44,000	985	0.74%	55,680	-	-	55,680	1,138	0.83%
Other ETFs *	25,160	-	-	25,160	563	0.42%	20,570	-	-	20,570	420	0.31%
Funds of Funds Investing Overseas **	25,160	-	-	25,160	563	0.42%	27,070	-	-	27,070	553	0.40%
Total	4,471,960	1,268,970	181,570	5,922,500	132,643	100.00%	5,422,050	1,197,790	111,920	6,731,760	137,593	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.

Consequent to this market development, the NSE launched India's first Mutual Fund Service System (MFSS) on November 30, 2009, through which an investor can subscribe or redeem the units of a mutual fund scheme. The MFSS is an online order collection system provided by the NSE to its eligible members for placing subscriptions or redemption orders on the MFSS, based on the orders received from the investors. This has made the buying and selling of mutual funds easier for investors. The subscription/redemption requests would be processed, and the investor would know about the status of the request only in the form of direct communication from the MF/AMC/RTA. The NSE MFSS facilitates the entry of both buy as well as sell orders. With the MFSS, investors can place an order through a registered NSE member who is eligible to participate in the MFSS for subscription/redemption of units. In order to subscribe for units, the members are required to place buy orders. A member who wishes to redeem the units of a mutual fund scheme will be required to place sell orders in the system. While putting their subscription/redemption requests on the MFSS, the participants can choose between physical mode and depository mode. All orders are settled on an order-to-order basis, in T+1 (working days).

As many as 26 fund houses have joined the NSE MFSS platform as on March 31, 2011, and there were 1,312 sub schemes available for trading. During April 2010 to March 2011, there were 17,377 orders placed for subscriptions worth ₹ 1,428.25 million and 2,178 orders worth ₹ 493.76 million were redeemed. The trend moved northwards in the April–September period of 2011–2012, when 37,330 orders were placed for subscriptions worth ₹ 2,223.23 million, and 3,831 orders worth ₹ 787.12 million were redeemed.

Table 3-7: MFSS Trade Statistics

Date	Subscription		Redemption		Total orders
	No of orders	Total subscription amount (₹ mn)	No of orders	Total redemption amount (₹ mn)	
Apr 2010 - Mar 2011 *	17,377	1,428.25	2,178	493.76	19,555
Apr 2011 - Sep 2011	37,330	2,223.23	3,831	787.12	41,161

**: Data not available for August and September 2010*
Source: NSE

Unit Holding Pattern of Mutual Funds

The unit holding pattern of mutual funds depicted in Table 3-8 shows that the individual investors accounted for 97.07 percent of the total number of investor accounts at the end of March 2011. They were followed by NRIs, who constituted a meager 1.90 percent of the total number of investor accounts. On the other hand, the corporates/institutions accounted for 72.80 percent of the net assets of the MF industry in 2010–2011, followed by individuals, who accounted for 23.40 percent. The corporates/institutions saw the highest increase in net assets among the four categories, with a year-on-year improvement of 18.05 percent in 2010–2011.

Table 3-8: Unit Holding Pattern of Mutual Funds

Category	Number of Investor Accounts		Net Assets	
	2009-10	2010-11	2009-10	2010-11
Individuals	97.07%	97.00%	39.77%	23.40%
NRIs	1.98%	1.90%	4.45%	2.00%
FIIs	0.00%	0.00%	1.03%	1.80%
Corporate/Institutions/Others	0.95%	1.10%	54.75%	72.80%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: SEBI

Index Funds

At the end of September 2011, there were 44 index funds in the mutual fund industry. The performance of these ETFs (in terms of returns in 3 months, 6 months, and 12 months) and their details, such as their date of launch and their underlying index, are depicted in Table 3-9. A comparison of Nifty-based index funds with Nifty is depicted in Chart 3-3 and Chart 3-4, while a comparison of SENSEX-based index funds with the SENSEX is depicted in Chart 3-5.

Table 3-9: Performance of Index Funds

	Index Funds - Schemewise	Launch Date	Benchmark Index	Returns (in %)		
				3M	6M	12M
1	Birla Sun Life Index Fund - Dividend	18-Sep-02	S&P Nifty	-12.16%	-15.39%	-20.44%
2	Birla Sun Life Index Fund - Growth	18-Sep-02	S&P Nifty	-12.16%	-15.39%	-20.44%
3	Canara Robeco Nifty Index - Dividend	8-Oct-04	S&P Nifty	-11.83%	-14.39%	-18.93%
4	Canara Robeco Nifty Index - Growth	8-Oct-04	S&P Nifty	-11.83%	-14.44%	-18.96%
5	Franklin India Index Fund - BSE Sensex Plan - Dividend	26-Mar-04	BSE Sensex	-12.18%	-14.71%	-19.14%
6	Franklin India Index Fund - BSE Sensex Plan - Growth	26-Mar-04	BSE Sensex	-12.18%	-14.71%	-19.14%
7	Franklin India Index Fund - NSE Nifty Plan - Dividend	4-Aug-00	S&P Nifty	-11.90%	-14.50%	-19.18%
8	Franklin India Index Fund - NSE Nifty Plan - Growth	26-Mar-04	S&P Nifty	-11.90%	-14.50%	-19.18%
9	HDFC Index Fund - Nifty Plan	17-Jul-02	S&P Nifty	-12.20%	-14.99%	-19.87%
10	HDFC Index Fund - Sensex Plan	17-Jul-02	BSE Sensex	-12.27%	-14.79%	-19.87%
11	HDFC Index Fund - Sensex Plus Plan	17-Jul-02	BSE Sensex	-10.63%	-12.49%	-16.37%
12	ICICI Prudential Index Fund	26-Feb-02	S&P Nifty	-11.44%	-14.06%	-18.67%
13	IDBI Nifty Index Fund - Dividend	25-Jun-10	S&P Nifty	-12.04%	-14.86%	-22.63%
14	IDBI Nifty Index Fund - Growth	25-Jun-10	S&P Nifty	-12.04%	-14.86%	-19.82%
15	IDFC Nifty Fund - Dividend	30-Apr-10	S&P Nifty	-10.95%	-13.40%	-17.82%
16	IDFC Nifty Fund - Growth	30-Apr-10	S&P Nifty	-10.94%	-13.40%	-18.27%
17	LIC Nomura MF Index Fund - Nifty Plan - Dividend	6-Dec-02	S&P Nifty	-11.53%	-14.32%	-18.72%
18	LIC Nomura MF Index Fund - Nifty Plan - Growth	6-Dec-02	S&P Nifty	-11.53%	-14.32%	-18.72%
19	LIC Nomura MF Index Fund - Sensex Advantage Plan - Div	6-Dec-02	BSE Sensex	-12.15%	-14.69%	-19.69%
20	LIC Nomura MF Index Fund - Sensex Advantage Plan - Growth	6-Dec-02	BSE Sensex	-12.15%	-14.70%	-19.67%
21	LIC Nomura MF Index Fund - Sensex Plan - Dividend	6-Dec-02	BSE Sensex	-12.12%	-14.75%	-19.25%
22	LIC Nomura MF Index Fund - Sensex Plan - Growth	6-Dec-02	BSE Sensex	-12.12%	-14.76%	-19.27%
23	PRINCIPAL Index Fund - Dividend	26-Jul-99	S&P Nifty	-11.95%	-14.58%	-19.21%
24	PRINCIPAL Index Fund - Growth	26-Jul-99	S&P Nifty	-11.96%	-14.60%	-19.23%
25	Reliance Index Fund - Nifty Plan - Ann Dividend	28-Sep-10	S&P Nifty	-11.90%	-14.42%	-18.97%
26	Reliance Index Fund - Nifty Plan - Bonus	28-Sep-10	S&P Nifty	-11.90%	-14.42%	-18.97%
27	Reliance Index Fund - Nifty Plan - Growth	28-Sep-10	S&P Nifty	-11.90%	-14.41%	-18.96%
28	Reliance Index Fund - Nifty Plan - Half Yly Dividend	28-Sep-10	S&P Nifty	-11.92%	-14.42%	-18.97%
29	Reliance Index Fund - Nifty Plan - Qtly Dividend	28-Sep-10	S&P Nifty	-11.90%	-14.42%	-18.97%
30	Reliance Index Fund - Sensex Plan - Ann Dividend	28-Sep-10	BSE Sensex	-12.32%	-15.05%	-20.14%
31	Reliance Index Fund - Sensex Plan - Bonus	28-Sep-10	BSE Sensex	-12.32%	-15.05%	-20.14%
32	Reliance Index Fund - Sensex Plan - Growth	28-Sep-10	BSE Sensex	-12.32%	-15.05%	-20.14%
33	Reliance Index Fund - Sensex Plan - Half Yly Dividend	28-Sep-10	BSE Sensex	-12.32%	-15.05%	-20.14%
34	Reliance Index Fund - Sensex Plan - Qtly Dividend	28-Sep-10	BSE Sensex	-12.32%	-15.05%	-20.14%
35	SBI Magnum Index Fund - Dividend	17-Jan-02	S&P Nifty	-12.25%	-14.76%	-19.48%
36	SBI Magnum Index Fund - Growth	17-Jan-02	S&P Nifty	-12.29%	-14.80%	-19.52%
37	Tata Index Fund - Nifty Plan - Option A	25-Feb-03	S&P Nifty	-12.16%	-14.84%	-19.68%
38	Tata Index Fund - Sensex Plan - Option A	25-Feb-03	BSE Sensex	-12.26%	-14.86%	-19.54%
39	Taurus Nifty Index Fund - Dividend	19-Jun-10	S&P Nifty	-11.25%	-14.10%	-18.77%
40	Taurus Nifty Index Fund - Growth	19-Jun-10	S&P Nifty	-12.16%	-15.00%	-19.62%
41	UTI Master Index Fund - Dividend	1-Jun-98	BSE Sensex	-12.08%	-14.59%	-18.97%
42	UTI Master Index Fund - Growth	1-Jun-98	BSE Sensex	-12.08%	-14.59%	-18.97%
43	UTI Nifty Fund - Dividend	14-Feb-00	S&P Nifty	-12.18%	-14.86%	-19.73%
44	UTI Nifty Fund - Growth	14-Feb-00	S&P Nifty	-12.18%	-14.87%	-19.74%

Note: Returns are calculated as at end of September 2011
Source: NSE and ICRA

Exchange Traded Funds

At the end of September 2011, there were 31 exchange-traded funds in India (listed on the NSE and the BSE), of which 20 were index-based ETFs and 11 were gold-based ETFs. The performance of these ETFs (in terms of returns in 3 months, 6 months, and 12 months) and their details, such as their date of launch and their underlying index, are depicted in Table 3-10.

Table 3-10: Performance of Exchange Traded Funds

	ETFs	Type of ETF	Launched by	Listed at	Launch Date	3 month	6 month	12 month
	Index Based ETF							
1	Bank BeES	Index Based-CNX Bank	Benchmark Mutual Fund	NSE	27-May-04	-15.85%	-17.49%	-24.01%
2	Hang Seng BeES	Index Based on Hang Seng Index	Benchmark Mutual Fund	NSE	18-Mar-10	-13.27%	-17.09%	-11.88%
3	ICICI SENSEX Prudential ETF	Index Based-Sensex	ICICI Prudential Mutual Fund	BSE	13-Jan-03	-12.00%	-14.38%	-18.21%
4	Junior BeES	Index Based-CNX Nifty Junior	Benchmark Mutual Fund	NSE	21-Feb-03	-12.57%	-13.02%	-23.32%
5	Kotak Nifty ETF	Index Based-Nifty 50	Kotak Mututal Fund	NSE	2-Feb-10	-11.92%	-14.40%	-18.81%
6	Kotak PSU Bank ETF	Index Based-CNX PSU Bank	Kotak Mututal Fund	NSE	16-Nov-07	-18.41%	-26.13%	-34.25%
7	Kotak Sensex ETF	Index Based-Sensex	Kotak Mututal Fund	BSE	16-Jun-08	-11.97%	-14.42%	-18.69%
8	Infra BeES	Index Based-Infrastructure	Benchmark Mutual Fund	NSE	7-Oct-11	-16.35%	-16.18%	N.A.
9	Birla Sun Life Nifty	Index Based-Nifty 50	Birla Sun Life Mutual Fund	NSE	4-Jul-11	N.A.	N.A.	N.A.
10	Liquid BeES	Money Market ETF	Benchmark Mutual Fund	NSE	27-May-04	0.00%	0.00%	0.00%
11	MOSt Shares M50	Index Based-Nifty 50	Motilal Oswal Mutual Fund	NSE	30-Jun-10	-12.98%	-18.65%	-24.87%
12	MOSt Shares M100	Index Based- CNX 100	Motilal Oswal Mutual Fund	NSE	Jan-11	-10.99%	-11.73%	N.A.
13	MOSt Shares N100	Index Based-NASDAQ	Motilal Oswal Mutual Fund	NSE	31-Mar-11	3.69%	2.53%	N.A.
14	Nifty BeES	Index Based-Nifty 50	Benchmark Mutual Fund	NSE	28-Dec-01	-11.85%	-14.34%	-18.69%
15	PSU Bank BeES	Index Based-CNX PSU Bank	Benchmark Mutual Fund	NSE	1-Nov-07	-18.35%	-26.08%	-34.23%
16	Quantum Index Fund - Growth	Index Based-Nifty 50	Quantum mutual Fund	NSE	18-Jul-08	-11.78%	-14.31%	-18.71%
17	Reliance Banking ETF	Index Based-CNX Bank	Reliance Mutual Fund	NSE	27-Jun-08	-15.50%	-17.09%	-23.60%
18	S&P CNX NIFTY UTI National Depository Receipts Scheme	Index Based-Nifty 50	UTI Mutual Fund	NSE	7-Jul-03	-10.84%	-12.94%	-16.67%
19	Shariah BeES	Index Based-Nifty 50	Benchmark Mutual Fund	NSE	18-Mar-09	-8.71%	-12.75%	-16.32%
20	Religare Nifty	Index Based-Nifty 50	Religare Mutual Fund	NSE	23-May-11	-11.89%	N.A.	N.A.
	GOLD ETFs							
21	Axis Gold ETF	Based on Gold	Axis Mututal Fund	NSE	30-Oct-10	18.77%	22.99%	N.A.
22	Birla Sun Life Gold ETF	Based on Gold	Birla Sun Life Mutual Fund	NSE	25-Apr-11	18.91%	N.A.	N.A.
23	Goldman Sachs Gold ETF	Based on Gold	Goldman Sachs Mutual Fund	NSE	19-Mar-07	18.68%	22.94%	33.35%
24	HDFC Gold ETF	Based on Gold	HDFC Mutual Fund	NSE	30-Jun-09	18.97%	23.21%	33.56%

Contd.

Contd.

ETFs		Type of ETF	Launched by	Listed at	Launch Date	3 month	6 month	12 month
25	ICICI Prudential Gold ETF	Based on Gold	ICICI Prudential Mutual Fund	NSE	16-Jul-10	18.94%	23.06%	33.13%
26	Kotak Gold ETF	Based on Gold	Kotak Mutual Fund	NSE	8-Aug-07	16.99%	23.07%	33.20%
27	Quantum Gold Fund - Growth	Based on Gold	Quantum Mutual Fund	NSE	28-Feb-08	19.17%	23.44%	33.92%
28	Reliance Gold ETF - Dividend	Based on Gold	Reliance Mutual Fund	NSE	27-Jun-08	19.24%	23.47%	34.07%
29	Religare Gold ETF	Based on Gold	Religare Mutual Fund	NSE	29-Jan-10	19.10%	23.39%	33.90%
30	SBI Gold ETS	Based on Gold	SBI Mutual Fund	NSE	28-May-09	17.66%	23.79%	33.93%
31	UTI Gold ETF	Based on Gold	UTI Mutual Fund	NSE	1-Mar-07	19.16%	23.44%	33.92%

Source: NSE and ICRA

Table 3-11: Turnover of ETFs listed at NSE and BSE

Sr. No.		Name of ETF	ETF Symbol	2010-11		(April-September 2011)	
				Sum of Total Traded Value (₹ mn)	Sum of Total Traded Value (US $ mn)	Sum of Total Traded Value (₹ mn)	Sum of Total Traded Value (US $ mn)
1	INDEX BASED ETFs	Benchmark Asset Management Company Bank BeES	BANK BEES	781.54	17.50	423.24	8.65
2		Birla Sun Life Nifty ETF	BSLNIFTY	N.A.	N.A.	4.65	0.09
3		Benchmark Mutual Fund - Hang Seng Benchmark Exchange Traded Scheme	HNGSNG BEES	738.20	16.53	104.08	2.13
4		Goldman Sachs Infrastructure Exchange Traded Scheme	INFRABEES	36.99	0.83	12.26	0.25
5		Benchmark Mutual Fund-Nifty Junior Benchmark ETF	JUNIOR BEES	3,434.97	76.93	527.96	10.79
6		Kotak Mahindra Mutual Fund-Kotak Nifty ETF	KOTAK NIFTY	413.88	9.27	511.31	10.45
7		Kotak PSU Bank ETF	KOTAK PSU BK	793.15	17.76	567.97	11.61
8		Kotak Sensex	KOTAK SENSEX	391.86	8.78	50.28	1.03
9		Liquid Benchmark Exchange Traded Scheme	LIQUIDBEES	32,659.21	731.45	19,153.61	391.49
10		Motilal Oswal MOSt Shares M100	M100	556.15	12.46	254.38	5.20
11		Motilal Oswal MOSt Shares M50	M50	3,033.32	67.94	299.19	6.12
12		Motilal Oswal MOSt Shares NASDAQ 100	N100	0.71	0.02	120.76	2.47
13		Benchmark Mutual Fund-Nifty BeES	NIFTY BEES	13,554.44	303.57	7,568.69	154.70
14		Benchmark Mutual Fund - PSU Bank Benchmark Exchange Traded Scheme	PSUBNK BEES	283.22	6.34	74.28	1.52
15		Quantum Index Fund -Exchange Traded Fund	QNIFTY	10.43	0.23	5.56	0.11
16		Reliance Mutual Fund -Banking Exchange Traded Fund	RELBANK	73.60	1.65	15.81	0.32
17		Religare Nifty Exchange Traded Fund	RELGRNIFTY	N.A.	N.A.	23.12	0.47
18		Benchmark Mutual Fund - Shariah Benchmark Exchange Traded Scheme	SHARIA BEES	9.90	0.22	3.79	0.08
19		ICICI SENSEX Prudential Exchange Traded Fund (SPICE)-Listed at BSE	SPICE-ETF	5.06	0.11	0.83	0.02
20		S&P CNX NIFTY UTI Notional Depository Receipts Sceheme (SUNDER)	UTISUNDERETF	36.54	0.82	9.14	0.19
		Total Turnover of Index Funds		**56,813.18**	**1,272.41**	**29,730.92**	**607.68**

Contd.

Contd.

21	GOLD BASED ETFs	Axis Gold ETF	AXISGOLD	65.07	1.46	660.68	13.50
22		Birla Sun Life Gold ETF	BSLGOLDETF	N.A.	N.A.	1,052.78	21.52
23		Benchmark Mutual Fund - Gold Benchmark Exchange Traded Scheme	GOLDBEES	28,237.68	632.42	45,582.52	931.68
24		HDFC Mutual Fund-HDFC Gold Exchange Traded Fund	HDFCMFGETF	946.47	21.20	1,706.12	34.87
25		ICICI Prudential Mutual Fund - ICICI Prudential Gold ETF	ICICIPRUGETF	234.40	5.25	316.62	6.47
26		Kotak Mutual Fund - Gold Exchange Traded Fund	KOTAKGOLDETF	4,692.16	105.09	7,946.45	162.42
27		Quantum Gold Fund -Exchange Traded Fund	QUANTUM GOLD	471.88	10.57	247.48	5.06
28		Reliance Mutual Fund - Gold Exchange Traded Fund	RELIANCEGOLD	6,909.41	154.75	5,917.03	120.94
29		Religare Mutual Fund - Religare Gold Exchange Traded Fund	RELIGAREGOLD	213.05	4.77	932.50	19.06
30		SBI Mutual Fund - SBI Gold Exchange Traded Scheme - Growth Option	SBI GOLD ETS	1,848.62	41.40	3,593.80	73.45
31		UTI Mutual Fund-UTI Gold Exchange Traded Fund	GOLDSHARE	3,749.81	83.98	4,839.29	98.91
		Total Turnover of Gold Based ETFs		**47,368.56**	**1,060.89**	**72,795.27**	**1,487.89**
		Total Turnover of all ETFs		**104,181.74**	**2,333.30**	**102,526.18**	**2,095.57**
		Percentage of Index Funds Turnover to total ETF Turnover		54.53		29.00	
		Percentage of Gold based ETF Turnover to total ETF turnover		45.47		71.00	

Source: NSE, ICRA

The total traded value of the 31 ETFs listed on the NSE and the BSE during the fiscal year 2010–2011 was ₹ 104,181.74 million (US $ 2,333.30 million). The details of the ETF turnover at the NSE and the BSE is given in Table 3-11. As per Chart 3-3, the turnover of index-based ETFs constituted 54.53 percent of the total turnover of exchange-traded funds.

Chart 3-3: Percentage Share of Turnover of Index-based ETFs vis-à-vis Gold-based ETFs (2010–2011)

Source: NSE

Venture Capital Funds

At the end of June 2011, the total investment by VCFs stood at ₹ 262,220 million. This information was compiled on the basis of the quarterly information submitted to SEBI by the registered VCFs. The industry-wise cumulative investment details of - venture capital funds registered with SEBI is given in Table 3-12.

Table 3-12: Industry wise Cumulative Investment details of SEBI Registered Venture Capital Funds (VCF)

Sectors of Economy	(₹ mn)		
	31-Mar-10	31-Mar-11	30-Jun-11
Information technology	5,630	5,640	5,540
Telecommunications	7,770	10,920	10,920
Pharmaceuticals	5,680	4,570	4,640
Biotechnology	2,280	1,860	1,670
Media/ Entertainment	5,840	9,030	9,240
Services Sector	9,020	11,680	13,340
Industrial Products	8,750	9,470	10,300
Real Estate	55,840	87,000	91,310
Others	81,920	115,590	115,260
Total	**182,730**	**255,760**	**262,220**

Source : SEBI

4. Capital Market

Introduction

The secondary market is where securities are traded after being initially offered to the public in the primary market and/or being listed on the stock exchange. The stock exchanges along with a host of other intermediaries provide the necessary platform for trading in the 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 NSE has laid down rules and guidelines for various intermediaries with regard to the admission and the fee structure for trading members, listing criteria, and the listing fees for companies. With the increased application of information technology, the trading platforms of the stock exchanges are accessible from anywhere in the country through their trading terminals. The trading platforms are also accessible through the Internet. In a geographically widespread country like India, this has significantly expanded the reach of the exchanges. The secondary market is composed of equity markets and the debt markets. This chapter focuses on equity markets, while debt markets are dealt with in chapter 5.

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

Several entities, such as the clearing corporation, clearing members, custodians, clearing banks, and 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 the post-trade activities, such as risk management and the clearing and settlement of trades executed on a stock exchange. The National Securities Clearing Corporation Ltd. (NSCCL), a wholly owned subsidiary of the NSE, was the first clearing corporation to be established in the country, and was also the first clearing corporation in the country to introduce settlement guarantee. The NSCCL was incorporated in August 1995. It was set up with the objective of bringing and sustaining confidence in the clearing and settlement of securities, promoting and maintaining short and consistent settlement cycles, providing counterparty risk guarantee, and operating a tight risk containment system.

Clearing Members

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

Custodians

Custodians are clearing members but are not trading members. They settle trades on behalf of the trading members, when a particular trade is assigned to them for settlement. The custodians are required to confirm whether they are going to settle that trade or not. If they confirm to settle that trade, then the clearing corporation assigns that particular obligation to them. As on September 30, 2011, there are 17 custodians empanelled with the NSCCL. They are Axis Bank Ltd., BNP Paribas, Citibank N.A., DBS Bank Ltd., Deutsche Bank A.G., Edelweiss Custodial Services Limited, HDFC Bank Ltd., Hongkong Shanghai Banking Corporation Ltd., ICICI Bank Ltd., Infrastructure Leasing and Financial Services Ltd., JP Morgan Chase Bank N.A., Kotak Mahindra Bank Ltd., Orbis Financial Corporation Ltd., State Bank of India, SBI Custodial Services Pvt. Ltd., Standard Chartered Bank Ltd., and the Stock Holding Corporation of India Ltd.

Clearing Banks

Clearing banks are a key link between the clearing members and the clearing corporation in the 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 the case of a pay-out. There are 13 clearing banks of the NSE, namely, Axis Bank Ltd., Bank of India Ltd., Canara Bank Ltd., Citibank N.A., HDFC Bank Ltd., HSBC Ltd., ICICI Bank Ltd., IDBI Bank Ltd., IndusInd Bank Ltd., Kotak Mahindra Bank, Standard Chartered Bank, State Bank of India, and Union Bank of India.

Depositories

A depository holds the securities in a dematerialized form for the investors in their beneficiary accounts. Each clearing member is required to maintain a clearing pool account with the depositories. They are 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 the accounts of the custodians/clearing member to that of the NSCCL (and vice versa) as per the schedule of allocation of the securities. The two depositories in India are the National Securities Depository Ltd. (NSDL) and the Central Depository Services (India) Ltd. (CDSL).

Professional Clearing Member

The NSCCL admits a special category of members known as professional clearing members (PCMs). The 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 those of the custodians. The PCMs also undertake the clearing and settlement responsibilities of the trading members. The PCMs in this case have no trading rights, but have clearing rights, i.e., they clear the trades of their associate trading members and institutional clients.

Trading Mechanism

The NSE was the first stock exchange in the country and was set up as a national exchange having nationwide access with a fully automated screen-based trading system. The National Exchange for Automated Trading (NEAT) is the trading system of the NSE. The NEAT facilitates an online, fully automated, nationwide, anonymous, order driven, screen-based trading system. In this system, a member can enter the quantities of securities and the prices at which he/she would like to transact, and the transaction is executed as soon as it finds a matching sale for the buy order for a counterparty. The numerous advantages of the NEAT system are listed below:

- It electronically matches orders on a price/time priority, and hence, cuts down on time, cost, and risk of error, as well as on fraud, resulting in improved operational efficiency.
- It allows the faster incorporation of price sensitive information into prevailing prices, thus increasing the informational efficiency of markets.
- It enables market participants to see the full market in real time, making the market transparent. It allows a large number of participants, irrespective of their geographical locations, to trade with one another simultaneously, improving the depth and the liquidity of the market.
- It provides tremendous flexibility to the users in terms of the kinds of orders that can be placed on the system.

It ensures full anonymity by accepting orders, big or small, from members without revealing their identity, thus providing equal access to everybody.

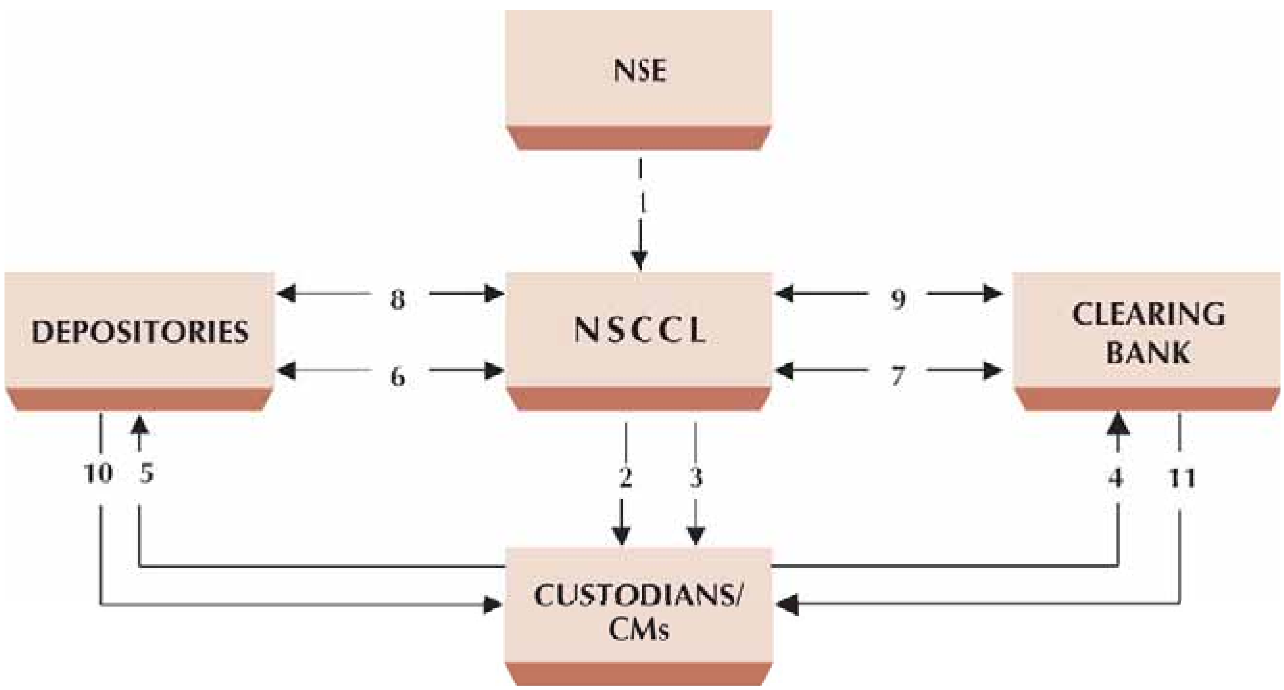
- It provides a perfect audit trail that helps to resolve disputes by logging in the trade execution process in its entirety.

Clearing and Settlement Process

The clearing process involves the determination of what the counterparties owe, and which counterparties are due to receive on the settlement date, following which the obligations are discharged by settlement. The clearing and settlement process involves three main activities—clearing, settlement, and risk management.

The clearing and settlement process for transactions in securities on the NSE is presented in Chart 4-1.

Chart 4-1: Clearing and Settlement Process at NSE



Source: RBI

The core processes involved in clearing and settlement include:

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

b) Trade Confirmation: Trades that are meant for settlement by the custodians are indicated with a custodian participant code, and the same is subject to confirmation by the respective custodian. The custodian is required to confirm the settlement of these trades on T+1 day by the cut-off time of 1:00 pm.

c) Determination of Obligation: The next step is the determination of what the counterparties owe, and what the counterparties are due to receive on the settlement date. The NSCCL interposes itself as a central counterparty between the counterparties to trade and net the positions so that a member has a 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 the 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 the 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 the members to bring in their funds/securities to the clearing corporation. The CMs make the securities available in the designated accounts with the two depositories (the CM pool account in the case of the NSDL, and the 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, the CMs with funds obligations make the funds available in the designated accounts with the clearing banks. The clearing corporation sends electronic instructions to the clearing banks to debit the designated CMs' accounts to the extent of the payment obligations. The banks process these instructions, debit the accounts of the CMs, and credit the accounts of the clearing corporation. This constitutes the pay-in of funds and securities.

e) Pay-out of Funds and Securities: After processing for shortages of funds/securities and arranging for the 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 the pay-out of securities/funds. The depositories and clearing banks debit the accounts of the clearing corporation and credit the accounts of CMs. This constitutes the pay-out of funds and securities.

Settlement Cycle

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

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

Table 4-1: Settlement Cycle in CM Segment

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

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

Dematerialized Settlement

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

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 the market intermediaries. The measures are aimed at improving the market infrastructure and upgrading risk containment, in order to protect the interests of the investors. The recent policy developments (April 2010 to September 2011) pertaining to the secondary market segments are enumerated below.

I. Reporting of lending of securities bought in the Indian market (Circular date: June 29, 2010)

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

II. Review of Securities Lending and Borrowing (SLB) Framework (Circular date: October 07, 2010)

Based on the feedback received from market participants and the proposals for the revision of the SLB received from the NSE and the BSE, the SLB framework was revised vide Circular no. MRD/DoP/SE/Cir-31/2008, dated October 31, 2008. The tenure of contracts in the SLB has been revised up to a maximum period of 12 months. The Approved Intermediary (Clearing Corporation/Clearing House) shall have the flexibility to decide the tenure (maximum period of 12 months). The lender/borrower would have the facility of early recall/repayment of shares. In case the borrower fails to meet the margin obligations, the Approved Intermediary (AI) shall obtain the securities and square off the position of such defaulting borrowers, failing which there shall be a financial close-out. In case the lender recalls the securities any time before the completion of the contract, the AI on a best effort basis shall try to borrow the security for the balance period, and pass it on to the lender. The AI will collect the lending fee from the lender who has sought early recall. In the case of early repayment of securities by the borrower, the margins shall be released immediately on the securities being returned by the borrower to the AI. The AI shall on a best effort basis, try to lend the securities onwards, and the income arising out of the same shall be passed on to the borrowers making early repayments of securities. In case AI is unable to find a new borrower for the balance period, the original borrower will have to forego the lending fee for the balance period.

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

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

a) The securities of all companies shall be traded in the normal segment of the exchange if and only if the company has achieved at least 50 percent of non-promoters' holding in dematerialized form by October 31, 2010.

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

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

- Merger, demerger, amalgamation, capital reduction/consolidation, scheme of arrangement, in terms of the Companies Act and/or as sanctioned by the Courts, in cases of rehabilitation packages approved by the Board of Industrial and Financial Reconstruction under Sick Industrial Companies Act and in cases of Corporate Debt Restructuring (CDR) packages by the CDR Cell of the RBI.
- Securities that are being admitted to trading from another exchange by way of direct listing/MOU/ securities admitted for trading under permitted category.
- Where suspension of trading is being revoked after more than one year.

IV. Introduction of call auction in Pre-open session with effect from October 18, 2010 (Circular date: July 15, 2010)

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

- Giving investors a choice of achieving a zero impact cost trade;
- Reducing transaction costs and execution risk;
- Reducing bid-offer spreads in the continuous market when any news breaks out in between close of the market on the previous day and the next day's open price.

The pre-open session shall have a duration of 15 minutes from 9:00 am to 9:15 am. The call auction in the pre-open session will be introduced initially for those securities forming part of S&P CNX Nifty and SENSEX indices. The pre-open session is composed of an order collection period and an order matching period. The order collection period of 8 minutes[1] shall be provided for order entry, modification, and cancellation. During this period, orders can be entered, modified, and cancelled. Information such as indicative equilibrium, opening price of scrip, total buy and sell quantity of the scrip, indicative NIFTY Index value, and percentage change of indicative equilibrium price to previous close price shall be computed based on the orders in the order book, and shall be disseminated during the pre-open session.

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

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

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

[1] System driven random closure between the 7th and 8th minute.

Equilibrium price determination

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

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

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

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

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

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

V. Introduction of Smart Order Routing (Circular date: August 27, 2010)

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

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

VI. Guidelines for market makers on Small and Medium Enterprise (SME) exchange (Circular date: April 26, 2010)

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

a) The market maker shall be required to provide a two-way quote for 75 percent of the time in a day. The same shall be monitored by the stock exchange. Further, the market maker shall inform the exchange in advance for each and every black out period when the quotes are not being offered by the market maker.

b) The minimum depth of the quote shall be ₹ 1,00,000. However, investors with holdings of value less than ₹ 1,00,000 shall be allowed to offer their holding to the market maker in that scrip, provided he sells his entire holding to the selling broker in that scrip in one lot along with a declaration to this effect.

c) The execution of the order at the quoted price and the quantity must be guaranteed by the market maker, for the quotes given by him.

d) There should not be more than five market makers for a scrip. These would be selected on the basis of objective criteria to be evolved by the exchange, which would include capital adequacy, networth, infrastructure, minimum volume of business, and so on.

VII. Auction session shall be conducted on T+2 day

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

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

VIII. Stock exchanges can permit modifications to client code post trade execution (Circular date: January 3, 2011)

Stock exchanges can permit modifications to the client code of non-institutional trades only in the case of a genuine error or wrong data entry made by the trading members. This facility has been provided for the smooth functioning of the system, and is expected to be used more as an exception rather than as a routine. Notwithstanding the above,

a) the stock exchanges shall levy a penalty from trading members and credit the same to its Investor Protection Fund as shown below:

'a' as % of 'b'	Penalty as % of 'a'
≤ 5	1
> 5	2

where

a = Value (turnover) of non-institutional trades where the client codes have been modified by a trading member in a segment during a month, and

b = Value (turnover) of non-institutional trades of the trading member in the segment during the month;

b) the stock exchange shall conduct a special inspection of the trading members to ascertain whether the modifications of the client codes are being carried out as per the strict objective criteria set by the stock exchange.

IX. Unauthenticated news circulated by SEBI Registered Market Intermediaries through various modes of communication (Circular date: March 23, 2011)

The SEBI observed that unauthenticated news related to various scrips were being circulated in blogs/chat forums/e-mails etc. by the employees of broking houses/other intermediaries without adequate caution as mandated in the Code of Conduct for Stock Brokers and the respective Regulations of the various intermediaries registered with SEBI. In various instances, it was observed that the intermediaries did not have proper internal controls and did not ensure that proper checks and balances were in place to govern the conduct of their employees. Due to poor training and the lack of proper internal controls, the employees of such intermediaries were sometimes not aware of the damage that could be caused by the circulation of unauthenticated news or rumours. It is a well-established fact that market rumours can do considerable damage to the normal functioning and behaviour of the market and can distort the price discovery mechanisms.

In view of these facts, the SEBI Registered Market Intermediaries were informed that:

a) Proper internal code of conduct and controls should be put in place.

b) Employees/temporary staff/voluntary workers employed/working in the offices of market intermediaries should not encourage or circulate rumours or unverified information obtained from clients, industry, any trade or any other sources without verification.

c) Access to blogs/chat forums/messenger sites, etc. should either have restricted access under supervision or access should not be allowed.

d) Logs for any usage of such blogs/chat forums/messenger sites (called by any name) shall be treated as records, and the same should be maintained as specified by the respective Regulations that govern the intermediary concerned.

e) Employees should be directed that any market-related news received by them in their official mail/personal mail/blog or in any other manner should be forwarded only after the same has been seen and approved by the Compliance Officer of the intermediary concerned. If an employee fails to do so, he/she shall be deemed to have violated the various provisions contained in the SEBI Act/Rules/Regulations, and shall be liable for actions.

The stock exchanges are advised to:

a) bring the provisions of this circular to the notice of the stock brokers, and to disseminate the same on their Websites also;

b) make necessary amendments to the relevant bye-laws, rules, and regulations for the implementation of this decision in co-ordination with one another, to achieve uniformity in approach;

c) communicate to the SEBI, the status of the implementation of the provisions of this circular in their Monthly Development Reports.

The depositories are advised to:

a) make amendments to the relevant bye-laws, rules, and regulations for the implementation of the above decision immediately, as may be applicable/necessary,

b) bring the provisions of this circular to the notice of their DPs; and

c) disseminate the same on their Websites.

X. Redemption of Indian Depository Receipts (IDRs) into Underlying Equity Shares (Circular date: June 3, 2011)

In order to allow foreign issuers to raise funds from the Indian capital markets through IDRs and to enable investors in the domestic market to have investment opportunities in the securities of major multi-national companies listed on well-developed markets, a legal framework was created by the Ministry of Corporate Affairs (MCA), the Reserve Bank of India (RBI), and the SEBI. Pursuant to the same, Standard Chartered PLC came out with its IDR issue in May 2010; these IDRs were listed on the BSE and the NSE on June 11, 2010. Pursuant to the terms of the RBI Circular, IDRs are not redeemable into underlying equity shares before the expiry of a one-year period from the date of issue of the IDRs. The SEBI Regulations and the RBI Circular state that the automatic fungibility of IDRs is not permitted. Therefore, the fungibility of IDRs into the underlying shares would be permitted only after the expiry of the one-year period from the date of issue of the IDRs, and subsequent to obtaining RBI approval on a case-by-case basis. The extant regulatory frameworks such as Regulation 100 of Chapter X of SEBI (ICDR) Regulations, 2009, RBI's circular dated July 22, 2009, and Rule 10 of the Companies (Issue of Indian Depository Receipts) Rules, 2004 do not permit fungibility, and allow only redemption. Therefore, allowing redemption freely in the absence of two-way fungibility could result in a reduction in the number of IDRs listed, thereby impacting their liquidity in the domestic market.

In view of the above, in consultation with the RBI, SEBI has decided that:

a) After the completion of one year from the date of issuance of IDRs, redemption of the IDRs shall be permitted only if the IDRs are infrequently traded on the stock exchange(s) in India.

b) The issuer company shall test the frequency of trading of the IDRs on a half-yearly basis ending on June and December of every year.

c) When the IDRs are considered 'infrequently traded,' it shall be the trigger event for redemption.

d) The issuer company shall make a public announcement in an English and Hindi language newspaper with wide circulation in the prescribed format (including brief details about the trigger of the redemption event, the time period for the submission of applications, and the approach for processing the applications) and notify the stock exchanges. This announcement should be made within seven days of the closure of the half-year ending on which the liquidity criteria is tested. A suitable format for this purpose shall be prescribed by the stock exchange(s).

e) The IDR holders may submit their application to the domestic depository for redemption of IDRs within a period of thirty days from the date of such public announcement.

f) The redemption of IDRs shall be completed within a period of thirty days from the date of receipt of the application for redemption.

g) Pursuant to such redemption, the domestic depository shall notify the revised shareholding pattern of the issuer company to the concerned stock exchanges within seven days of completion of the process of redemption.

XI. Processing of investor complaints against listed companies in SEBI Complaints Redress System (SCORES) (Circular date: June 3, 2011)

The SEBI has commenced processing investor complaints in a centralized Web-based complaints redress system known as SCORES. The salient features of this system are:

a) Centralized database of all complaints;

b) Online movement of complaints to the listed companies concerned;

c) Online upload of the Action Taken Reports (ATRs) by the companies concerned; and

d) Online viewing by investors of actions taken on the complaint and its current status.

The companies are required to view the complaints pending against them, and submit the ATRs along with supporting documents electronically in the SCORES. Failure on the part of the company to update the ATR in the SCORES will be treated as non-redressal of investor complaints by the company. The submission of physical ATRs will not be accepted for the complaints lodged in the SCORES.

XII. Shareholding of promoter/promoter group to be in dematerialized mode (Circular date: June 17, 2011)

In order to moderate sharp and destabilizing price movements in the shares of companies, to encourage better price discovery, and to increase transparency in the securities market, SEBI (vide SEBI/Cir/ISD/1/2010 dated September 02, 2010) issued a circular on 'trading rules and shareholding in dematerialized mode.' This circular inter-alia mandated the securities of companies to be traded in the normal segment if and only if the company has achieved at least 50 percent non-promoter shareholding in a dematerialized form and has maintained the same on a continuous basis.

In order to further promote the dematerialization of securities, to encourage the orderly development of the securities market, and to improve transparency in the dealings of shares by promoters including pledge/usage as collateral, SEBI—in consultation with the stock exchanges—has decided that the securities of companies shall be traded in the normal segment of the exchange if and only if the company has achieved 100 percent of promoter's and promoter group's shareholding in a dematerialized form latest by the quarter ended September 2011 as reported to the stock exchanges. In all the cases where the companies do not satisfy these criteria, the trading in the securities of such companies shall take place in the trade for trade segment.

XIII. Clarification regarding admission of Limited Liability Partnerships as members of stock exchanges (Circular date: July 11, 2011)

The Securities Contract Regulation Rules, 1957 (SCRR) do not explicitly mention LLPs, as the Limited Liability Partnership Act, 2008 was a subsequent development. As per the LLP Act, the LLP is a corporate body. Sub-rule 4A and 5 of Rule 8 of the SCRR provide that Limited Liability Companies (LLC) and partnership firms are eligible to be admitted as members of stock exchanges. In this context, it may be stated that the LLPs are similar to LLCs and partnership firms. Since the Parliament has put in place a legal framework for LLPs, stock exchanges may consider granting membership to LLPs, subject to the LLP complying with the conditions laid down in Rule 8(4A) of the SCRR.

XIV. ASBA facility mandatory for QIBs and NIIs

The ASBA facility shall be mandatory for non-retail investors—Qualified Institutional Buyers (QIBs) and Non-Institutional Investors (NIIs)—making applications in public/rights issues, with effect from May 01, 2011.

XV. New Takeover Regulations based on recommendations of Takeover Regulations Advisory Committee (TRAC) (Circular date: July 28, 2011)

The Board considered the Report of the Takeover Regulations Advisory Committee (TRAC) and accepted most of the recommendations of the TRAC, including the following:

a) Initial trigger threshold increased to 25 percent from the existing 15 percent.

b) There shall be no separate provision for non-compete fees, and all shareholders shall be given exit at the same price.

c) In the case of competitive offers, the successful bidder can acquire the shares of the other bidder(s) after the offer period, without attracting open offer obligations.

d) Voluntary offers have been introduced, subject to certain conditions.

e) Recommendation on the offer by the Board of Target Company has been made mandatory.

f) The minimum offer size shall be increased from the existing 20 percent of the total issued capital to 26 percent of the total issued capital.

XVI. Disclosure of voting results by listed entities (Circular date: July 28, 2011)

In order to ensure the wider dissemination of information regarding voting patterns, which would give a better picture of how the meetings are conducted and how the different categories of investors have voted on a resolution, listed entities shall disclose in a prescribed format, the voting results/patterns on their websites and to the exchanges within 48 hours from the conclusion of the concerned shareholders' meeting. To start with, it will be applicable to the top 500 listed companies; based on the experience gained, it will be extended to all listed companies after one year.

XVII. Disclosure of quarterly financial results by listed companies (Circular date: July 28, 2011)

In order to give a better comparative picture of the quarterly financial results, the listed companies shall disclose the figures of the immediately preceding quarter, in addition to the existing requirements. Companies that opt to submit audited annual results within 60 days of the end of the financial year in lieu of the last quarter results shall also submit the last quarter results along with the audited annual results.

XVIII. Amendment to the SEBI (Prohibition of Insider Trading) Regulations, 1992

The Board approved the amendment to the SEBI (Prohibition of Insider Trading) Regulations, 1992, mandating certain disclosures to be made by the promoters and the individuals who are part of the promoter group of a listed company. The amendment relates to initial disclosures relating to their shareholding at the time of becoming a promoter or part of a promoter group, as well as continuous disclosures whenever there is a change in their holdings exceeding ₹ 5 lakh in value or 25,000 shares or 1 percent of the total shareholding or voting rights, whichever is lower. Presently, similar disclosures are required to be made by the directors and the officers of the company.

XIX. Mode of supplying Annual Reports by listed entities to shareholders (Circular date: July 28, 2011)

As part of the green initiative, in order to contain the environmental costs incurred by listed entities in supplying hard copies of full annual reports to all shareholders, SEBI has decided that listed entities shall supply:

a) soft copies of full annual reports to all those shareholders who have registered for the same;

b) hard copy of abridged annual reports to others;

c) hard copies of full annual reports to those shareholders who ask for the same.

XX. SMS and E-mail alerts to investors by stock exchanges (Circular date: August 2, 2011)

The SEBI receives complaints from investors about stock brokers who include alleged unauthorized trading in their accounts. The SEBI has taken steps in the past to address this issue. As an additional measure, the stock exchanges shall send the details of the transactions to the investors by the end of the trading day, through SMSes and email alerts. These guidelines are applicable to the equity, cash, and derivative segments of the stock exchanges. Stock brokers shall upload the details of their clients, such as name, mobile number, address for correspondence, and email address. After uploading the details by the stock brokers, the stock exchanges shall take necessary steps to verify the details by whatever mode is considered appropriate by the exchanges. Upon receipt of confirmation from the investors, the stock exchanges shall commence sending the transaction details (generated based on the investors' Permanent Account Number) directly to them.

Market Design[2]

Stock Exchanges

At the end of March 2011, there were 21 stock exchanges registered with SEBI, having a total of 9,235 registered brokers and 83,952 registered sub-brokers trading on them (Annexure 4-1). The stock exchanges need to be recognized under the Securities Contracts (Regulation) Act, 1956. Since its inception, the NSE has adopted a demutualized structure, and its model of demutualization compares well with the international models of demutualized stock exchanges. Some important features of the NSE structure are:

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

Membership

The trading platform of a stock exchange is accessible only to its 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 orders match, 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, and the various rules, circulars, notifications, and guidelines, as well as the bye-laws, rules, and regulations of the concerned exchange. No stock broker or sub-broker is allowed to buy, sell, or deal in securities, unless he/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 the NSE are in excess of those laid down by the SEBI. The admission of trading members is based on various criteria like capital adequacy, track record, education, and experience. The detailed eligibility criteria for trading membership in the CM, WDM, F&O, and CD segments are presented in Table 4-2. This reflects the conscious decision of the NSE to ensure quality broking services.
Corporatization of Brokers and Sub brokers	The authorities have been encouraging the corporatization of the broking industry. As a result, a number of broker-proprietor firms and partnership firms have converted themselves into corporates. At the end of March 2011, 4,563 brokers—accounting for 49.4 percent of the total number of brokers—have become corporate entities. Among those registered with the NSE, around 89.2 percent were corporatized; the BSE had 83.55 percent corporate brokers. At the end of March 2011, there were 83,952 sub-brokers registered with the SEBI, as compared to 75,378 sub-brokers at the end of the previous year. The NSE and the BSE together accounted for 98.75 percent of the total sub-brokers.

Listing of Securities

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

- Companies Act, 1956, the Securities Contracts (Regulation) Act, 1956 (SC(R)A), the Securities Contracts (Regulation) Rules (SC(R)R), 1957, and the circulars/guidelines issued by the central government and the SEBI, as well as the rules, bye-laws, and regulations of the particular stock exchange, and the listing agreement entered into by the issuer and the stock exchange.

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

A number of requirements under the SC(R)R, the bye-laws, and the listing agreement have to be continuously complied with by the issuers in order to ensure the 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 compliance with the requirements. In case a company fails to comply with the requirements, the trading of its security would be suspended for a specified period, or withdrawn/delisted, and a penalty would be imposed 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 recognized stock exchanges for its listing. If 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. A company may prefer to appeal the 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 bye-laws of the exchanges stipulate the norms for the listing of securities. All listed companies are under an obligation to comply with the conditions of the 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 the SEBI. • The Securities Contract (Regulation) Act, 1956 prescribes the requirements with respect to the listing of securities on a recognized stock exchange, and empowers the SEBI to waive or relax the strict enforcement of any or all of requirements with respect to listing as prescribed by these rules. • The listing agreement states that the issuer should agree to adhere to the agreement of listing, except with 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 securities at any time and for any reason that it considers appropriate. As per SEBI's 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 bye-laws. The SEBI has been issuing guidelines/ circulars prescribing certain norms to be included in the listing agreement that the companies should comply with. The listing requirements for companies in the CM segment of the NSE are presented in Table 4-6.
Listing Fees in the CM Segment	The stock exchanges levy listing fees on the companies whose securities are listed with them. The listing fee has two components—an initial fee and an annual fee. While the initial fee is a fixed amount, the annual fee varies, depending on the size of the company, as shown in the below table. Companies that have a paid up share, bond, and/ or debenture, and/or debt capital of more than ₹ 500 crore would have to pay a minimum fee of ₹ 500,000, and an additional listing fee of ₹ 3,400 for every increase of ₹ 5 crore or part thereof in the paid up share, bond, and/ or debenture, and/or debt capital, etc. Companies that have a paid up share, bond, and/ or debenture, and/or debt capital of more than ₹ 1,000 crore would have to pay a minimum fee of ₹ 850,000, and an additional listing fee of ₹ 3,700 for every increase of ₹ 5 crore or part thereof in the paid up share, bond, and/ or debenture, and/or debt capital, etc. The detailed structure of the listing fees is indicated below:

Sr. No.	Listing Fees	Amount (₹)
1	Initial Listing Fees	50,000
2	Annual Listing Fees (based on paid up share, bond, and/ or debenture, and/or debt capital, etc.)	
a	Up to ₹ 5 crore	18,000
b	Above ₹ 5 crore and up to ₹ 10 crore	31,500
c	Above ₹ 10 crore and up to ₹ 20 crore	57,500
d	Above ₹ 20 crore and up to ₹ 30 crore	90,000
e	Above ₹ 30 crore and up to ₹ 40 crore	100,000
f	Above ₹ 40 crore and up to ₹ 50 crore	105,000
g	Above ₹ 50 crore and up to ₹ 100 crore	175,000
h	Above ₹ 100 crore and up to ₹ 150 crore	200,000
i	Above ₹ 150 crore and up to ₹ 200 crore	240,000
j	Above ₹ 200 crore and up to ₹ 250 crore	275,000
k	Above ₹ 250 crore and up to ₹ 300 crore	310,000
l	Above ₹ 300 crore and up to ₹ 350 crore	340,000
m	Above ₹ 350 crore and up to ₹ 400 crore	375,000
n	Above ₹ 400 crore and up to ₹ 450 crore	435,000
o	Above ₹ 450 crore and up to ₹ 500 crore	500,000

Internet Trading

The SEBI has allowed the use of the Internet as an order routing system for communicating the investors' orders to the exchanges through the registered brokers. These brokers should obtain permission from their respective stock exchanges. In February 2000, the NSE became the first exchange in the country to provide Web-based access to investors to trade directly on the exchange, followed by the 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 then to the exchange. After these orders are matched, the transaction is executed, and the investors get the confirmation directly on their PCs. At the end of March 2011, a total number of 387 members were permitted to allow investors Web-based access to the NSE's trading system. The members of the exchange in turn had registered 5,640,513 clients for Web-based access as on March 31, 2011. During the year 2010–2011, 10.7 percent of the trading value in the capital market segment (765,271 crores = USD 171,393 million) was routed and executed through the Internet.

Trading Regulations

Insider Trading

Insider trading is considered an offence and is prohibited as per the SEBI (Prohibition of Insider Trading) Regulations, 1992. The same was amended in 2003. The Act prohibits an insider from dealing (on his/her behalf or on behalf of any other person) in the securities of a company listed on any stock exchange when he/she is in possession of any unpublished price sensitive information. Further, it has also prohibited any insider from communicating, counseling, or providing (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 that is related directly or indirectly to a company, and which, if published, is likely to materially affect the price of the securities of a company. It includes information such as the periodical financial results of the company, the intended declaration of dividends (both interim and final), the issue of securities or the buy-back of securities, any major expansion plans or execution of new projects, amalgamation, mergers, or takeovers, the disposal of the whole or substantial part of the undertaking, and significant changes in the policies, plans, or operations of the company. The SEBI is empowered to investigate any complaint received from the investors, intermediaries, or any other individuals on any matter having a bearing on allegations of insider trading.

Unfair Trade Practices	The SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to the Securities Market) Regulations, 2003, enabled the SEBI to investigate into cases of market manipulation as well as fraudulent and unfair trade practices. The regulations specifically prohibit fraudulent dealings, market manipulations, misleading statements to induce sale or purchase of securities, and unfair trade practices relating to securities. When the SEBI has reasonable grounds to believe that the transaction in securities are being dealt with in a manner detrimental to the investor or the securities market in violation of these regulations, and when any intermediary has violated the rules and regulations under the Act, it can order an investigation into the affairs of such intermediary or persons associated with the securities market. Based on the report of the investigating officer, the SEBI can initiate the suspension or cancellation of the registration of such an intermediary.
Takeovers The restructuring of companies through takeovers is governed by the SEBI (Substantial Acquisition of Shares and Takeover) Regulations, 2011. These regulations were formulated so that the process of acquisition and takeovers is carried out in a well-defined and orderly manner with fairness and transparency.	
The SEBI (Substantial Acquisition of Shares and Takeover) Regulations, 2011	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 acquire '**control'** over the target company, either by himself/herself or with any person acting in concert with the acquirer. The term '**control**' includes the right to appoint the 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 of 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, 2011	Certain categories of individuals 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 the shares of the company are listed. In the case of acquisition of 5 percent and more shares or voting rights of a company, an acquirer would have to disclose at every stage the aggregate of his/her shareholding or voting rights in that company to the company and to the stock exchange where the shares of the target company are listed. No acquirer either by himself/herself or through/ with persons acting in concert with him/her should acquire additional shares or voting rights unless the acquirer makes a public announcement to acquire the shares in accordance with the regulations. As per the regulations, a mandatory public offer is triggered on: 1. Acquiring the shares or voting rights in a target company that taken together with the shares or voting rights, if any, held by him/her and by persons acting in concert with him/her in such target company, entitle them to exercise 25 percent or more of the voting rights in the target company. The open offer for acquiring the shares to be made by the acquirer and persons acting in concert with him/her under Regulation 3 and Regulation 4 shall be for at least 26 percent of the total shares of the target company. In case the shares accepted in the open offer were such that the shareholding of the acquirer taken together with persons acting in concert with him/her pursuant to the completion of the open offer results in their shareholding exceeding the maximum permissible non-public shareholding, the acquirer shall be required to bring down the non-public shareholding to the level specified under the Securities Contract (Regulation) Rules, 1957 within one year. The acquirer and persons acting in concert with him/her shall not be eligible to make a voluntary delisting offer under the SEBI Delisting Regulations for 12 months from the date of the completion of the offer period. 2. The acquisition of shares or voting rights in, or control over, any company or other entity that would enable any person and persons acting in concert with him/her to exercise or direct the exercise of such percentage of voting rights in, or control over, a target company, the acquisition of which would otherwise attract the obligation to make a public announcement of an open

	offer for acquiring the shares under these regulations, shall be considered as an indirect acquisition of shares or voting rights in, or control over, the target company. 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 scrutinized by the Takeover Panel constituted by the SEBI. The creeping acquisition of 5 percent of shares/voting rights in a financial year by an acquirer holding 25 percent or more shares will be allowed up to a maximum permissible limit (75 percent or 90 percent, as applicable) under the Securities Contract Regulation Rules ("SCRR"). An acquisition in excess of the creeping limits will trigger an open offer. An acquirer who, together with persons acting in concert with him/her, holds shares or voting rights in a target company entitling them to exercise 25 percent or more but less than the maximum permissible non-public shareholding, shall be entitled to voluntarily make a public announcement of an open offer for the acquisition of at least such number of shares as would entitle the holder to exercise an additional 10 percent of the total shares of the target company in accordance with these regulations, subject to their aggregate shareholding after the completion of the open offer does not exceed the maximum permissible non-public shareholding. The offer price for direct acquisition is the highest of the following: • Highest negotiated price under the agreement triggering the offer; • Weighted average price of the shares acquired by the acquirer of the PACs during 52 weeks preceding the announcement; • Highest price paid for any acquisition by the acquirer or PACs during 26 weeks preceding the announcement; • Weighted average market price for sixty trading days preceding the announcement. The offer price will need to be increased by the payment of non-compete fees/control premium, or similar payments. If the acquirer has acquired any share during the offer period at a price higher than the offer price, the offer price will stand revised to that price. If the acquirer acquires any shares at a price higher than the offer price during the 26 weeks following the tendering period, the acquirer will be required to pay the difference between the offer price and that price to all the shareholders whose shares were accepted. To compute the offer price for indirect acquisition, in addition to the above parameters, any higher price paid during the period between contracting the primary transaction and the public announcement also would have to be considered.
Buy Back	Buy back is done by the company with the purpose to improve liquidity in its shares and enhance the shareholders' wealth. Under the SEBI (Buy Back of Securities) Regulations, 1998, a company is permitted to buy back its shares or other specified securities through any of the following methods: ▪ From the existing security holders on a proportionate basis through a tender offer; ▪ From the open market through (i) the book building process, and (ii) stock exchanges; ▪ From odd-lot holders. The company has to disclose the pre and post-buy back holding of the promoters. To ensure the speedy completion of the buyback process, the regulations have stipulated a time limit for each step. For example in the cases of purchases through tender offers, an offer for buy back should not remain open for less than 15 days and more than 30 days. The company should complete the verification of the offers received within 15 days of the closure of the offer and shares, or other specified securities. The payment for the accepted securities has to be made within seven days of the completion of verification, and bought back shares have to be extinguished and physically destroyed within seven 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 the takeover regulations.

Circuit Breakers	Volatility in stock prices is a cause of concern for both policy makers and investors. To curb excessive volatility, the SEBI has prescribed a system of circuit breakers. The circuit breakers bring about a nationwide 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 percent, 15 percent, and 20 percent. The breakers are triggered by movement of either the Nifty 50 or the SENSEX, whichever is breached earlier. Further, the NSE views the entries of non-genuine orders with utmost seriousness, as this has market-wide repercussions. 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 have been fixed as presented below: • Daily price bands of 2 percent (either way) on a set of specified securities; • Daily price bands of 5 percent (either way) on a set of specified securities; • Price bands of 20 percent (either way) on all remaining securities (including debentures, warrants, preference shares, etc. that are traded on the CM segment of the NSE); • Daily price bands of 10 percent (either way) on specified securities; • No price bands are applicable on scrips on which derivative products are available, or on scrips included in the indices on which derivatives products are available. For the auction market, the price bands of 20 percent are applicable. In order to prevent members from entering orders at non-genuine prices in these securities, the Exchange has fixed an operating range of 20 percent for such securities.
Demat Trading	A depository holds securities in a dematerialized form. It maintains the ownership records of the securities in a book entry form, and also effects the transfer of ownership through a book entry. Although the investors have a right to hold securities in either physical or demat form, the SEBI has made it compulsory that trading in securities should be only in the dematerialized 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 the dematerialized form. The securities of those companies that fail to establish connectivity with both the depositories on the scheduled date as announced by SEBI are traded on the trade for trade settlement window of the exchanges.
Statistics: NSDL & CDSL	At the end of March 2011, the number of companies connected to the NSDL and the CDSL were 8,842 and 8,152, respectively. The number of dematerialized securities increased from 429.09 billion at the end of March 2010 to 576.61 billion at the end of March 2011. However, during the same period, the value of dematerialized securities increased by 18.42 percent, from 64,568 billion to 76,464 billion. Since the introduction of the depository system, dematerialization has progressed at a fast pace, and has gained acceptance among the market participants. All actively traded scrips are held, traded, and settled in the demat form. The details of the progress in dematerialization in the two depositories (NSDL and CDSL) as on March 2011 and September 2011 are presented in Table 4-7. 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. The DPs are free to have their own charge structure for their clients. However, as per the SEBI directive, the DPs cannot charge investors any charges for opening a Beneficiary Owner (BO) account (except for statutory charges), for the credit of securities into the BO account, or custody charges. It may be added that the depositories have been reducing their charges as they grow rapidly.

Charges for Services

As per the SEBI Regulations, every stock broker—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, the NSE has been reducing the transaction charges over a period of time.

A member was required to pay the exchange transaction charges at the rate of 0.0035 percent (₹ 3.5 per ₹ 1 lakh) of the turnover till September, 2009. The NSE changed the transaction charges structure to a slab-based one (with effect from October, 2009), as shown below:

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

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

The maximum brokerage chargeable by a 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 percent of the contract price, exclusive of statutory levies such as securities transaction tax, SEBI turnover fee, service tax, and stamp duty. However, brokerage charges as low as 0.15 percent are also observed in the market.

Stamp duties are payable as per the rates prescribed by the relevant states. In Maharashtra, for brokers having their registered office in Maharashtra, stamp duties are charged at the rate of ₹ 1 for every ₹ 10,000 or part thereof (i.e., 0.01 percent) of the value of the security at the time of purchase/sale, as the case may be. However, if the securities are not delivered, stamp duties are at the rate of 20 paise for every ₹ 10,000 or part thereof (i.e., 0.002 percent).

As per the Finance Bill, 2008, stock exchanges and clearing house services are being charged a service tax on the services rendered by them in relation to assisting, regulating, or controlling the business of buying, selling, or dealing in securities, including the services provided in relation to trading, processing, clearing, and settlement of transactions in securities, goods, and forward contracts, with effect from May 16, 2008.

Institutional Trades

Trades by mutual funds (MFs) and Foreign Institutional Investors are termed as institutional trades. Transactions by MFs in the secondary market are governed by the SEBI (Mutual Funds) Regulations, 1996. An MF, under all its schemes, is not allowed to own more than 10 percent of any company's paid up capital. They are allowed to conduct only delivery-based transactions. With effect from April 21, 2008, an MF may engage in short selling of securities in accordance with the framework relating to short selling and securities lending and borrowing as specified by the SEBI. An MF cannot invest more than 10 percent of the NAV of a particular scheme in the equity shares or equity related instruments of a single company.

Investments by the FIIs are governed by the rules and regulations of the RBI and the SEBI. As per the RBI guidelines, the total holding of each FII/sub-accounts should not exceed 10 percent of the total paid up capital or paid up value of each series of convertible debentures. Further, the total holding of all the FIIs/sub-accounts put together should not exceed 24 percent of the paid up capital or paid up value of each series of convertible debentures. This limit of 24 percent can be increased to the sectoral cap/statutory limit as applicable to the Indian company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body.

Table 4-2: Eligibility Criteria for Trading Membership—Corporates

(Amount in ₹ lakh)

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

Source : NSE

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

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

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

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

Table 4-3: Requirements for Professional Clearing Memberhip

(All values in ₹ lakh)

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

Source : NSE

Note: The professional clearing member (PCM) is required to bring in an IFSD of ₹ 2 lakh and a Collateral Security Deposit (CSD) of ₹ 8 lakh per trading member whose trades he/she undertakes to clear in the F&O segment, and an IFSD of ₹ 6 lakh and a CSD of ₹ 17.5 lakh (₹ 9 lakh and ₹ 25 lakh, respectively for corporate members) per trading member in the CM segment.

Table 4-4: Eligibility Criteria for Membership—Individuals/ Partnership Firms

Particulars	CM	CM and F&O	WDM	CM and WDM	CM,WDM and F&O
Net Worth	75	75 (Membership in CM segment and Trading membership in F&O segment) 100 (Membership in CM segment and Trading and Self clearing membership in the F&O segment) 300 (Membership in CM segment and Trading and Clearing membership in F&O segment)	200	200	200 (Membership in WDM segment, CM segment and Trading/ Trading and Self Clearing membership in F&O segment) 300 (Membership in WDM segment, CM segment and Trading and clearing membership on F&O segment)
Interest Free Security Deposit (IFSD) with NSEIL	26.5	51.5	150	176.5	201.5
Collateral Security Deposit (CSD) with NSEIL	NIL	NIL	NIL	NIL	NIL
Interest Free Security Deposit (IFSD) with NSCCL	6	6 *	NIL	6	6*
Collateral Security Deposit (CSD) with NSCCL	17.5	17.5 **	NIL	17.5	17.5 **
Annual Subscription	0.5	0.5	NIL	0.5	0.5
Advance Minimum Transaction Charges for Futures Segment	NIL	1	NIL	NIL	1

Source : NSE

*Note: *An additional IFSD of ₹ 25 lakhs with the NSCCL is required for Trading and Clearing members (TM-CM) and for Trading and Self clearing members (TM-SCM).*

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

Table 4-5: CURRENCY DERIVATIVES- Corporates, Individuals and Firms

(Amount in ₹ lakh)

Particulars	NSE Members			NCDEX Members			New Applicants			
	Trading Membership	Trading cum Self Clearing Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Self Clearing Membership	Trading cum Clearing Membership	Trading Membership	Trading cum Self Clearing Membership	Trading cum Clearing Membership	Professional Clearing Membership
Networth	100	500	1000	100	500	1000	100	500	1000	1000
Cash to NSEIL	2	2	2	2	2	2	2	2	2	NIL
Non Cash to NSEIL	8	8	8	10.5	13	13	13	18	18	NIL
Cash to NSCCL	NIL	25	25	NIL	25	25	NIL	25	25	25
Non cash to NSCCL	NIL	25	25	NIL	25	25	NIL	25	25	25
Education	Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination									
Advance Minimum Transaction Charges for Currency Derivatives Segment	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	–
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.									

Source : NSE

Note: In case the member is opting for membership of any other segment(s) in combination with the membership of the 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 the currency derivatives segment, whichever is higher.

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

Table 4-6: Listing Criteria for Companies on the CM Segment of NSE

Criteria	Initial Public Offerings (IPOs)	Companies listed on other exchanges
Paid-up Equity Capital (PUEC)/Market Capitalisation (MC) /Net Worth	PUEC ≥ ₹ 10 cr. and MC ≥ ₹ 25 cr.	PUEC ≥ ₹ 10 cr. and MC ≥ ₹ 25 cr. OR PUEC ≥ ₹ 25 cr. OR MC ≥ ₹ 50 cr. OR The company shall have a net worth of not less than ₹50 crores in each of the three preceding financial years.
Company/ Promoter's Track Record	Atleast 3 years track record of either a) the applicant seeking listing OR b) the promoters/promoting company incorporated in or outside India OR c) Partnership firm and subsequently converted into Company not in existence as a Company for three years) and approaches the Exchange for listing. The Company subsequently formed would be considered for listing only on fulfillment of conditions stipulated by SEBI in this regard.	Atleast three years track record of either a) the applicant seeking listing; OR b) the promoters/promoting company, incorporated in or outside India.
Dividend Record / Net worth / Distributable Profits	--	Dividend paid in at least 2 out of the last 3 financial years immediately preceding the year in which the application has been made OR The networth of the applicants atleast ₹50 crores OR The applicant has distributable profits in at least two out of the last three financial years.
Listing	--	Listed on any other stock exchange for at least last three years OR listed on the exchange having nationwide trading terminals for at least one year.
Other Requirements	(a) No disciplinary action by other stock exchanges/ regulatory authority in past 3 yrs. (b) Satisfactory redressal mechanism for investor grievances, (c) distribution of shareholding and (d) details of litigation record in past 3 years (e) Track record of Directors of the Company Provide a certificate to the Exchange in respect of the following: (1) The company has not been referred to the Board for Industrial and Financial Reconstruction (BIFR) (2) The networth of the company has not been wiped out by the accumulated losses resulting in a negative networth. (3) The company has not received any winding up petition admitted by a court.	(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 litigation record in past 3 years (e) Track record of Directors of the Company (f) Change in control of a Company/Utilisation of funds raised from public Provide a certificate to the Exchange in respect of the following: (1) The company has not been referred to the Board for Industrial and Financial Reconstruction (BIFR) (2) The networth of the company has not been wiped out by the accumulated losses resulting in a negative networth. (3) The company has not received any winding up petition admitted by a court.

Source : NSE

Note:

1. (a) *In the case of IPOs, Paid-up Equity Capital refers to post issue paid-up equity capital.*
   (b) *In the 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 the case of IPOs, market capitalization is the product of the issue price and the post-issue number of equity shares.*
   (b) *In the case of existing companies listed on other stock exchanges, market capitalization shall be calculated by using a 12-month moving average of the market capitalization over a period of six months immediately preceding the date of application. For the purpose of calculating the market capitalization 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 recognized stock exchanges where those shares are frequently traded, shall be taken into account while determining market capitalization after making necessary adjustments for corporate action such as rights/bonus issue/split.*

3. *In the case of existing companies listed on other stock exchanges, the requirement of ₹ 25 crore market capital shall not be applicable to the listing of securities issued by government companies, Public Sector Undertakings, financial institutions, nationalized 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 each with a minimum of three years' experience in the same line of business, holding at least 20 percent 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 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 capitalization will be computed based on the period from the time of the IPO to the time of listing.*

Table 4-7: Progress of Dematerialization (NSDL & CDSL) at the end of various periods

Parameters of Progress	NSDL				CDSL			
	Mar-09	Mar-10	Mar-11	Sep-11	Mar-09	Mar-10	Mar-11	Sep-11
Companies - Agreement signed	7,801	8,124	8,842	9,212	6,213	6,805	8,152	9,000
Companies - Available for Demat	7,801	8,124	8,842	9,212	6,213	6,805	8,152	9,000
Market Cap. of Companies available (₹bn.)	31,103	61,843	78,196	66,839	31,437	62,196	66,975	62,152
Number of Depository Participants	275	286	293	297	468	490	524	538
Number of DP Locations	8,777	11,170	12,767	13,689	6,934	8,590	10,052	10,639
No. of Investor Accounts	9,685,568	10,584,868	11,544,309	11,910,398	5,527,479	6,585,746	7,479,316	7,738,861
Demat Quantity (mn.)	282,270	351,138	471,304	536,014	70,820	77,950	105,310	130,910
Demat Value (₹ bn.)	31,066	56,178	66,079	66,878	4,397	8,389	10,385	9,959

Source: NSDL & CDSL

Index Services

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

The NSE and CRISIL have jointly promoted the India Index Services & Products Limited (IISL). The IISL provides stock index services by developing and maintaining an array of indices for stock prices. It has a licensing and marketing agreement with Standard and Poor's (S&P), the world's leading provider of investible equity indices, for co-branding equity indices. The IISL maintains a number of equity indices comprising broad-based benchmark indices, sectoral indices, and customized indices. They are maintained professionally to ensure that it continues to be a consistent benchmark of the equity markets, which involves the inclusion and the exclusion of stocks in the index, day-to-day tracking, and the effecting of corporate actions on individual stocks. Many investment and risk management products based on the IISL indices have been developed within India and abroad in the recent past. These include index-based derivatives traded on the NSE, the Singapore Exchange (SGX), and the Chicago Mercantile Exchange (CME), and a number of index funds and exchange-traded funds.

The most popular index is the S&P CNX Nifty, followed by the CNX Nifty Junior, the S&P CNX Defty, the S&P CNX 500, the CNX Midcap 200, the S&P CNX Industry indices, and the CNX IT Index. These indices are monitored and updated dynamically, and are reviewed regularly. These are maintained professionally to ensure that they continue to be consistent benchmarks of the equity markets, which involves the inclusion and the exclusion of stocks in the index, day-to-day tracking, and the effecting of corporate actions on individual stocks.

The main characteristics of the important indices of the NSE that are generally tracked by investors are as follows:

Indices	Particulars	Base date of the Index
S&P CNX NIFTY (NIFTY 50)	Blue chip index of the NSE, which is the most popular and widely used stock market indicator in the country. It consists of a diversified 50-stocks index accounting for 24 sectors of the economy, and accounts for 63.55 percent of the total free-float market capitalization of the NSE as on September 30, 2011.	November 3, 1995
CNX Nifty Junior	This index contains the next rung of liquid securities after the Nifty 50. The maintenance of the Nifty 50 and the CNX Nifty Junior are synchronized, so that the two indices will always be disjoint sets. This index accounts for about 12.62 percent of the free-float market capitalization of the NSE as on September 30, 2011.	November 3, 1996
CNX 100	This is a diversified 100-stock index accounting for 38 sectors of the economy, which is a combination of the Nifty 50 and the CNX Nifty Junior. The CNX 100 represents about 76.22 percent of the free-float market capitalization as on September 30, 2011.	January 1, 2003
S&P CNX 500	This is India's first broad-based benchmark of the Indian capital market, and helps in comparing portfolio returns vis-à-vis market returns. It represents about 94.95 percent of the free-float market capitalization and about 93.64 percent of the total turnover on the NSE as on September 30, 2011. The industry weightages in the index reflect the industry weightages in the market. For e.g., if the banking sector has a 5 percent weightage in the universe of stocks traded on the NSE, banking stocks would also have an approximate representation of 5 percent in the index.	1994
Nifty Midcap 50 and CNX Midcap	The primary objective of the Nifty Midcap 50 Index and the 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

In addition to these indices, the IISL also has a number of sectoral and thematic indices that reflect the market trend of these particular sectors. These include the CNX Auto Index, the CNX Bank Index, the CNX Energy Index, the CNX Finance Index, the CNX FMCG Index, the CNX IT Index, the CNX Media Index, the CNX Metal Index, the CNX MNC Index, the CNX Pharma Index, the CNX PSU BANK Index, the CNX Realty Index, the CNX Commodities Index, the CNX Consumption Index, the CNX Dividend Opportunities Index, the CNX Infrastructure Index, the CNX PSE Index, and the CNX Service Sector Index.

CNX Consumption Index

The CNX Consumption Index is designed to reflect the behaviour and performance of a diversified portfolio of companies listed on the NSE that represent the domestic consumption sector, which includes sectors such as consumer non-durables, healthcare, auto, telecom services, pharmaceuticals, hotels, media and entertainment, etc., while meeting stability and tradability requirements. The CNX Consumption Index comprises 30 companies. Currently the index is composed of companies from 14 different sectors. The index is capped at a stock level of 10 percent, i.e., no individual stock can have a weightage of more than 10 percent in the index at any given point of time. The CNX Consumption Index represents about 17.98 percent of the free-float market capitalization of the companies listed on the NSE, and 60.21 percent of the free-float market capitalization of the companies forming part of the consumption sector universe.

Chart 4-2: Performance of CNX Consumption Index

Source: NSE

The criteria for the CNX Consumption Index include the following:

a) Companies must rank within the top 500 companies ranked by average free-float market capitalization and aggregate turnover for the last six months.
b) More than 50 percent of the company's revenues must come from domestic markets (other than export income).
c) The company's trading frequency should be at least 90 percent in the last six months.
d) Companies should have a positive net worth as per the latest annual audited results.
e) The company should have an investable weight factor (IWF) of at least 10 percent.
f) Earnings growth over three years must be positive.
g) The company should have a listing history of six months. A company that comes out with an IPO will be eligible for inclusion in the index if it fulfills the normal eligibility criteria for the index for a 3-month period instead of a 6-month period.
h) The final selection of the 30 companies shall be done based on the free-float market capitalization of the companies, and the review will be carried out on a semi-annual basis.

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

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

Market Outcome

Turnover and Market Capitalization: Growth

The 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 the late 90s. The compounded annual growth rate of the trading volumes on all the stock exchanges taken together has been 22.36 percent over the period 2002–2003 to 2010–2011.

The NSE and the BSE were the only two stock exchange that reported significant trading volumes. With the exception of the Calcutta Stock Exchange and the Uttar Pradesh Stock Exchange, all the other stock exchanges in India did not report any trading volumes during 2010–2011. The NSE consolidated its position as the market leader by contributing 76.36 percent of the total turnover in India in 2010–2011, and 79.58 percent in first half of 2011–2012. Since its inception in 1994, the NSE has emerged as the favoured exchange among trading members. The consistent increase in popularity of the NSE is evident from Annexure 4-2, which presents the business growth of the CM segment of the NSE. The NSE has been successful in creating a niche for itself not only in the national arena but also in the international markets.

Looking at the trends in turnover in the NSE and the BSE from 2008–2009 to the first half of 2011–2012 (Table 4-8), one finds that 2010–2011 saw a decline in turnover on the exchanges, mainly on account of the crisis and the uncertainties in global financial markets. The turnover on the NSE declined by 13.55 percent in 2010–2011 compared to the turnover in 2009–2010, and the turnover on the BSE dipped by 19.86 percent over the same period. The average daily turnover on the NSE stood at US $ 3.14 billion in 2010–2011 compared to US $ 3.54 billion in 2009–2010. Though the average daily turnover on the BSE decreased by 17.79 percent to US $ 0.97 billion in 2010–2011, it declined substantially by more than 40 percent to stand at US $ 0.58 billion in the first half of 2011–2012 (compared to 2010–2011).

According to the WFE statistics, in terms of the number of trades in equity shares, the NSE ranks fourth with 1,556,620 thousand trades at the end of December 2010, and third with 1,065,901 thousand trades in January–September 2011. The trade details of the top-ranked stock exchanges are presented in Table 4-10.

Table 4-10: Total Numbers of Trades in Equity Shares (in Thousands)

Exchange	End December 2009	End December 2010	End September 2011
NYSE Euronext (US)	2,713,726	2,050,985	1,535,865
Shanghai Stock Exchange	2,142,611	1,661,489	1,054,157
NSE	1,630,438	1,556,620	1,065,901
Shenzhen SE	1,256,007	1,329,288	813,738
Korea Exchange	909,394	921,843	858,455

Source : WFE Reports

After witnessing an enormous growth of more than 100 percent during the year 2009–2010 in comparison to 2008–2009, 2010–2011 witnessed a healthy growth of 11.54 percent in market capitalization (Table 4-9). The market capitalization of the NSE, which at the end of March 2010 amounted to ₹ 60,091,732 million (US $ 1,255 billion), was increased to ₹ 67,026,156 million (US $ 1,501 billion) as at the end of March 2011. As at the end September of 2011, there has been some moderation in market capitalization to US $ 1,190 billion from US $ 1,501 billion (as at the end of March 2011) for the NSE.

World Traded Value and market capitalization

In 2010, the United States ranked first in terms of traded value (US $ 30,455 billion) and also in terms of market capitalization (US $ 17,139 billion). China ranked second with traded value of US $ 8,030 billion followed by Japan and

Table 4-8: Capital Market Market Turnover on Stock Exchanges in India

	Stock Exchanges	Capital Market Turnover								Share in Turnover (%)			
		2008-09		2009-10		2010-11		Apr-Sep 2011					
		(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	(₹ mn.)	(US $ million)	2008-09	2009-10	2010-11	Apr-Sep 2011
1	NSE	27,520,230	540,142	41,380,230	916,709	35,774,100	801,212	13,852,080	283,127	71.43	75.01	76.36	79.58
2	BSE	11,000,740	215,912	13,788,090	305,452	11,050,270	247,486	3,553,830	72,638	28.55	24.99	23.59	20.42
3	Calcutta	3,930	77	0	0	25,970	582	0	0	0.01	0.00	0.06	0.00
4	Uttar Pradesh	890	17	250	6	1	0.03	0	0	0.002	0.00	0.00	0.00
5	Ahmedabad	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
6	Delhi	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
7	Pune	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
8	Ludhiana	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
9	Bangalore	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
10	ICSE	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
11	Madras	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
12	Madhya Pradesh	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
13	Vadodara	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
14	OTCEI	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
15	Gauhati	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
16	Cochin	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
17	Bhubaneshwar	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
18	Coimbatore	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
19	Jaipur	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	Total	**38,525,790**	**756,149**	**55,168,570**	**1,222,166**	**46,850,341**	**1,049,280**	**17,405,910**	**355,765**	**100**	**100**	100.00	**100**

Source: SEBI

Table 4-9: Stock Market Indicators—Monthly Trends on NSE and BSE

Month	Turnover				Average Daily Turnover				Market Capitalisation (end of period)			
	NSE		BSE		NSE		BSE		NSE		BSE	
	₹ mn	US $ mn	₹ mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn	₹mn	US $ mn
Apr-09	2,666,960	55,713	889,430	18,580	156,880	3,277	52,320	1,093	33,750,250	705,040	35,869,780	749,316
May-09	3,825,610	79,917	1,285,420	26,852	191,280	3,996	64,270	1,343	45,645,720	953,535	48,650,450	1,016,304
Jun-09	4,824,140	100,776	1,591,950	33,256	219,280	4,581	72,360	1,512	44,325,960	925,965	47,499,340	992,257
Jul-09	4,261,429	89,021	1,389,860	29,034	185,280	3,870	60,430	1,262	48,164,590	1,006,154	51,399,420	1,073,729
Aug-09	3,649,688	76,242	1,223,190	25,552	173,795	3,631	58,250	1,217	49,757,998	1,039,440	52,856,570	1,104,169
Sep-09	3,650,631	76,261	1,242,200	25,949	182,532	3,813	62,110	1,297	53,538,796	1,118,421	57,083,370	1,192,466
Oct-09	3,629,688	75,824	1,140,070	23,816	181,484	3,791	57,000	1,191	50,248,302	1,049,683	53,759,200	1,123,025
Nov-09	3,244,768	67,783	1,051,420	21,964	162,238	3,389	52,570	1,098	54,300,880	1,134,340	57,952,090	1,210,614
Dec-09	2,929,004	61,187	980,820	20,489	139,476	2,914	46,710	976	56,996,368	1,190,649	60,813,080	1,270,380
Jan-10	3,384,426	70,700	1,170,840	24,459	178,128	3,721	61,620	1,287	57,829,647	1,208,056	59,257,250	1,237,879
Feb-10	2,451,434	51,210	825,100	17,236	122,572	2,561	41,250	862	57,553,054	1,202,278	59,049,290	1,233,534
Mar-10	2,862,455	59,796	997,790	20,844	136,307	2,847	47,510	992	60,091,732	1,255,311	61,656,190	1,287,992
2009-10	**41,380,234**	**864,429**	**13,788,090**	**288,032**	**169,591**	**3,543**	**56,510**	**1,180**	**60,091,732**	**1,255,311**	**61,656,190**	**1,287,992**
Apr-10	2,765,655	61,568	939,290	20,910	138,283	3,078	46,960	1,045	61,178,575	1,361,945	62,831,960	1,398,752
May-10	2,846,249	63,363	866,800	19,297	129,375	2,880	39,400	877	59,325,783	1,320,699	60,912,640	1,356,025
Jun-10	2,861,092	63,693	924,930	20,591	130,050	2,895	42,040	936	62,291,356	1,386,718	63,940,010	1,423,420
Jul-10	2,785,508	62,010	929,570	20,694	126,614	2,819	42,250	941	63,401,199	1,411,425	65,107,770	1,449,416
Aug-10	3,119,937	69,455	1,128,820	25,130	141,815	3,157	51,310	1,142	63,934,175	1,423,290	65,620,250	1,460,825
Sep-10	3,298,687	73,435	1,088,850	24,240	157,080	3,497	51,850	1,154	69,585,335	1,549,095	71,258,070	1,586,333
Oct-10	3,604,716	80,733	1,184,970	26,539	171,653	3,844	56,430	1,264	70,550,938	1,580,088	72,249,080	1,618,120
Nov-10	3,639,930	81,521	1,060,000	23,740	173,330	3,882	50,480	1,131	68,949,117	1,544,213	70,678,450	1,582,944
Dec-10	2,956,850	66,223	815,600	18,267	134,402	3,010	37,070	830	71,393,098	1,598,950	72,967,260	1,634,205
Jan-11	2,673,318	59,873	698,580	15,646	133,666	2,994	34,930	782	64,414,909	1,442,663	65,952,800	1,477,106
Feb-11	2,665,037	59,687	688,300	15,415	133,252	2,984	34,410	771	61,959,673	1,387,675	63,430,720	1,420,621
Mar-11	2,557,119	57,270	724,570	16,228	116,233	2,603	32,930	738	67,026,156	1,501,146	68,390,840	1,531,710
2010-11	**35,774,098**	**798,832**	**11,050,280**	**246,695**	**140,291**	**3,142**	**43,330**	**970**	**67,026,156**	**1,501,146**	**68,390,840**	**1,531,710**
Apr-11	2,283,484	46,673	693,360	14,172	126,860	2,593	38,520	787	67,536,144	1,380,393	69,080,900	1,411,967
May-11	2,338,760	47,803	594,940	12,160	106,307	2,173	27,040	553	65,697,427	1,342,811	67,318,690	1,375,948
Jun-11	2,224,571	45,469	593,370	12,128	101,117	2,067	26,970	551	65,747,432	1,343,833	67,309,470	1,375,760
Jul-11	2,300,025	47,011	595,550	12,173	109,525	2,239	28,360	580	64,622,377	1,320,838	66,172,730	1,352,526
Aug-11	2,352,534	48,084	533,010	10,894	112,025	2,290	25,380	519	59,216,837	1,210,352	60,616,260	1,238,955
Sep-11	2,352,702	48,088	543,600	11,111	112,033	2,290	25,890	529	58,203,341	1,189,637	59,538,870	1,216,934
Apr-Sep 2011	**13,852,076**	**283,127**	**3,553,830**	**72,638**	**110,817**	**2,265**	**28,430**	**581**	**58,203,341**	**1,189,637**	**59,538,870**	**1,216,934**

Source: SEBI

the United Kingdom. In terms of market capitalization, China was second with a market capitalization of US $ 4,763 billion, followed by Japan. India ranked tenth in terms of traded value (US $ 1,057 billion) and ranked seventh in market capitalization (US $ 1,616 billion) for 2010 (Table 4-11).

Table 4-11: Top 20 countries—World Value Traded and market capitalization (2010)

Rank	Country	Total Value Traded (US$ millions)	Country	Total market capitalisation (USD mn)
1	United States	30,454,798	United States	17,138,978
2	**China**	8,029,969	**China**	4,762,837
3	Japan	4,280,423	Japan	4,099,591
4	**United Kingdom**	3,006,680	United Kingdom	3,107,038
5	Korea	1,626,604	Canada	2,160,229
6	Hongkong	1,597,543	France	1,926,488
7	Germany	1,405,037	**India**	1,615,860
8	Canada	1,365,654	**Brazil**	1,545,566
9	Australia	1,221,900	Australia	1,454,547
10	**India**	1,056,808	Germany	1,429,707
11	Spain	937,798	Switzerland	1,229,357
12	**Brazil**	901,105	Spain	1,171,615
13	**Taiwan**	892,620	Korea	1,089,217
14	Switzerland	869,438	Hong Kong	1,079,640
15	France	828,032	**South Africa**	1,012,538
16	**Russia**	799,688	**Russia**	1,004,525
17	Netherlands	592,071	**Taiwan**	804,119
18	Italy	539,339	Netherlands	661,204
19	Sweden	439,605	Sweden	581,174
20	**Turkey**	421,590	**Mexico**	454,345

Source:S&P Global Stock Markets Factbook 2011

Emerging markets

Developed markets

The BRIC (Brazil, Russia, India, China) economies posted a year-on-year drop of 5.18 percent in the trading value from US $ 11,377 billion in 2009 to US $ 10,788 billion in 2010 (Table 4-12). Brazil witnessed the highest rise in turnover during this period, followed by Russia. India recorded a year-on-year dip of 2.95 percent in turnover. Regarding the market capitalization of the BRIC economies, there was an increase of 8.68 percent at the end of December 2010 compared to the figures at the end of December 2009, as against a jump of 53.55 percent at the end of December 2009 compared to the figures at the end of December, 2008. The largest upsurge in market capitalization was in India, followed by Brazil and Russia. Chinese markets witnessed a shrinkage of 4.89 percent in market capitalization. The share of the BRIC economies in the total traded value of emerging economies substantially increased to 78.92 percent in 2010 compared to 71.28 percent in 2009. Similarly, the share of the BRIC economies in the total world market capitalization decreased from 17.34 percent in 2009 to 16.37 percent in 2010.

Table 4-12: Turnover and market capitalization of BRIC Economies

Country	Traded Value (in US $ millions)			Market capitalisation (in US $ millions)		
	December-09	December-10	YoY Percentage Change	December-09	December-10	YoY Percentage Change
Brazil	649,187	901,105	38.81%	1,167,335	1,545,566	32.40%
Russia	682,540	799,688	17.16%	861,424	1,004,525	16.61%
India	1,088,889	1,056,808	-2.95%	1,179,235	1,615,860	37.03%
China	8,956,188	8,029,969	-10.34%	5,007,646	4,762,837	-4.89%
BRIC Economies	**11,376,804**	**10,787,570**	**-5.18%**	**8,215,640**	**8,928,788**	8.68%
Emerging Market Economies	**15,960,708**	**13,668,167**	**-14.36%**	**13,844,424**	**15,231,251**	10.02%
World Total	**81,334,238**	**63,974,708**	**-21.34%**	**47,375,837**	**54,540,941**	15.12%
Percentage share of BRIC Economies to						
1) Total turnover/market capitalisation of Emerging Economies	71.28	78.92		59.34	58.62	
2) Total turnover/market capitalisation of World	13.99	16.86		17.34	16.37	

Source:S&P Global Stock Markets Factbook 2011

Market Movements

The movement of a few of the selected indices presented in Table 4-13 brings out the trends witnessed in the Indian and foreign markets during 2009–2010 and 2010–2011. A global comparison of these selected indices indicates that in 2009–10, all these indices witnessed extraordinary returns in the range of 30–80 percent. However, in 2010–2011 all these indices depicted varied kinds of performance, ranging from positive returns of 25 percent to negative returns of 12 percent. The period April–September 2011 saw some correction in index performance. The S&P CNX Nifty saw a negative return of 15.26 percent, while the Hang Seng Index lost the maximum ground, to the tune of 25.25 percent.

Table 4-13: Movement of Select Indices on Indian and International Markets

Region	Index - Country	31-Mar-09	31-Mar-10	31-Mar-11	30-Sep-11	Change during 2009-10 (%)	Change during 2010-11 (%)	Change during Apr-Sep'11 (%)
Americas	Dow Jones	7608.92	10856.63	12319.73	10913.38	42.68	13.48	-11.42%
	Nasdaq	1528.59	2397.96	2781.07	2415.40	56.87	15.98	-13.15%
Europe	FTSE 100- UK	3926.10	5679.60	5908.80	5128.50	44.66	4.04	-13.21%
	CAC- France	2807.34	3,974.01	3,989.18	2,981.96	41.56	0.38	-25.25%
Asia Pacific	Nifty 50 (S&P CNX Nifty)- India	3020.95	5249.10	5833.75	4943.25	73.76	11.14	-15.26%
	BSE Sensex- India	9708.50	17527.77	19445.22	16453.76	80.54	10.94	-15.38%
	Hang Seng- Hong Kong (China)	13576.02	21239.35	23527.52	17592.41	56.45	10.77	-25.23%
	Nikkei- Japan	8109.53	11089.94	9755.10	8700.29	36.75	-12.04	-10.81%
	Kospi - South Korea	1206.26	1692.85	2106.70	1,769.65	40.34	24.45	-16.00%

Source: NSE, BSE & Bloomberg.

Comparing the movement of the Nifty, SENSEX, and NASDAQ over 2010–2011 (as depicted in Chart 4-3), the Nifty 50 performed better than other Asian indices such as the Nikkie 225 and theHang Seng Index for most of the year. The returns on the NASDAQ were 15.98 percent in 2010–2011, while that of the FTSE 100 and the Hang Seng Index were 4.04 percent and 10.77 percent, respectively, over the same period (Table 4-13). The Japanese stock market indicator Nikkie 225 grossly underperformed in the global market due to the massive sell-off witnessed by the Tokyo Stock Exchange following the devasting earthquake and the nuclear plant disaster.

Chart 4-3: Movement of Nifty, Dow Jones, FTSE 100, Nikkie 225, Hang Seng, and NASDAQ (Apr'2010 – Sep'2011)

Source: NSE, Bloomberg

Volatility

The volatility of the S&P CNX Nifty (Nifty 50) and the SENSEX since April 2010 is presented in Table 4-14. The stock markets were most volatile during May 2010, when the volatility in the Nifty was 1.6 percent and that in the SENSEX was 1.5 percent. May 2010 was a comparatively more volatile month due to the looming threats from the sovereign debt crisis and as a consequence of the continuation of political uncertainty across Europe. Volatility was lowest in July 2010. The volatility of the S&P CNX Nifty, represented by the India VIX and the CBOE VIX, is also plotted in Chart 4-4. Though India VIX, a volatility indicator of the S&P CNX Nifty, traded at a year high as a spillover effect of the European sovereign debt crisis, it was less volatile in comparison to the CBOE during April 2010 to September 2011.

Source: NSE, Bloomberg

Table 4-14: Stock Market Index, Volatility, and P/E Ratio (April 2010 to September 2011)

Month/Year	Nifty 50			Sensex		
	Index	Volatility (%)**	P/E Ratio*	Index	Volatility (%)**	P/E Ratio*
Apr-10	5278.00	0.80	22.29	17559	0.8	21.28
May-10	5086.30	1.60	21.3	16945	1.5	19.96
Jun-10	5312.50	1.20	22.25	17701	1.2	20.57
Jul-10	5367.60	0.60	22.31	17868	0.6	21.2
Aug-10	5402.40	0.70	22.73	17971	0.7	21.61
Sep-10	6029.95	0.8	25.46	20069	0.8	22.99
Oct-10	6017.70	1.1	24.7	20032	1.1	23.2
Nov-10	5862.70	1.3	23.4	19521	1.3	22.4
Dec-10	6134.50	0.9	24.5	20509	0.9	23.6
Jan-11	5505.90	1.2	21.1	18328	1.1	20
Feb-11	5333.25	1.5	20.4	17823	1.5	19.4
Mar-11	5833.75	1.3	22.1	19445	1.3	21.2
Apr-11	5749.50	0.9	21.4	19136	1.1	21.1
May-11	5560.15	1.1	20.5	18503	1.1	19.7
Jun-11	5647.40	0.9	20.8	18846	1	19.9
Jul-11	5482.00	0.9	19.8	18197	1	18.9
Aug-11	5001.00	1.1	18.1	16677	1.5	18.4
Sep-11	4943.25	1.4	17.9	16454	1.6	18

* *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:NSE, BSE, SEBI

The volatility across the different sectoral indices for the period April 2010 to September 2011 varied widely, as shown in Table 4-16. The CNX IT index was the most volatile index with the highest volatility among the sectoral indices during most of the months. August 2011 saw the highest volatility of 2.72 percent in this index.

Returns in Indian Market

The performance of the Nifty 50 and various other indices for the last one month to 12 months (as at the end of March 2011 and September 2011) is presented in Table 4-15. Over a 1-year horizon for the period ending March 2011, all the indices showed returns in the range of 4 percent to 12 percent, with the largest gain recorded by the CNX Nifty Defty index. The 6-month as well as 3-month returns were negative for all the indices as at the end of March 2011. As at the end of September 2011, the 1-year returns indicate that all the indices were in deep red. The S&P CNX Defty index generated a negative return of 27 percent in September 2011 compared to the figures in September 2010, on account of the depreciation of the Indian rupee.

Table 4-15: Performance of Select NSE Indices

As at end March 2011- In per cent				
	1 month	**3 month**	**6 month**	**1 year**
S&P CNX Nifty	9.38	-4.9	-3.25	11.14
S&P CNX 500	8.93	-6.37	-6.06	7.26
S&P CNX Defty	10.98	-4.45	-2.45	12.08
CNX Nifty junior	7.95	-7.79	-10.38	4.69
CNX Midcap	9.09	-9.22	-12.27	4.35
As at end Sep 2011 - In per cent				
	1 month	**3 month**	**6 month**	**1 year**
S&P CNX Nifty	-1.15	-12.15	-15.15	-19.54
S&P CNX 500	-1.49	-12.02	-14.26	-20.73
S&P CNX Defty	-6.96	-20.05	-22.74	-26.77
CNX Nifty Junior	-1.67	-13.01	-13.54	-23.54
CNX Midcap	-2.75	-11.61	-12.73	-23.91

Source: NSE

The comparative performance of the five major sectoral indices—the S&P CNX Petrochemicals Index, the S&P CNX Finance Index, the CNX FMCG Index, the S&P CNX Pharma Index, and the CNX IT Index—with the Nifty 50 Index for the period April 2010 to September 2011 is presented in Chart 4-5. During the early part of the financial year 2010–2011, indices such as the S&P CNX FMCG and the CNX Petrochemicals outperformed the other sectoral indices by generating higher returns. However, during the same period, the CNX Infrastructure grossly underperformed the benchmark S&P CNX Nifty and the other sectoral indices to trade at a year-end low. Except for the CNX IT, all the other sectoral indices performed better by generating higher returns than the S&P CNX Nifty.

Chart 4-5: Movement of Nifty 50 and Sectoral Indices (April 2010 to September 2011)

Source: NSE

The monthly closing prices of these sectoral indices are presented in Table 4-16.

Table 4-16: Performance of Sectoral Indices

Month/ Year	Monthly Closing Prices						Average Daily Volatility (%)					
	S&P CNX Nifty	CNX FMCG	CNX IT	Finance	S&P CNX Petro-chemicals	S&P CNX Pharma-ceuticals	S&P CNX Nifty	CNX FMCG	CNX IT	S&P CNX Fi-nance	S&P CNX Petro-chem-icals	S&P CNX Phar-ma-ceuti-cals
Apr-10	5278.00	7467.13	5985.80	3918.77	6803.40	7477.28	0.83	0.66	1.04	0.99	1.31	0.60
May-10	5086.30	7665.18	5761.95	3878.16	6951.07	7601.08	1.56	1.21	1.56	1.56	1.17	1.05
Jun-10	5312.50	8404.38	5928.30	4075.40	7369.70	8686.91	1.18	1.01	1.24	1.04	1.33	0.56
Jul-10	5367.60	8370.17	6086.85	4295.38	7158.55	9117.81	0.64	0.55	1.05	0.43	0.94	0.36
Aug-10	5402.40	8746.07	5974.90	4375.17	7121.78	9320.95	0.68	0.84	1.12	1.04	1.37	0.62
Sep-10	6029.95	9571.19	6613.40	4785.16	7684.34	9998.75	0.77	1.01	1.14	0.81	1.58	0.62
Oct-10	6017.70	9274.02	6613.25	5227.59	8185.76	9697.37	1.09	1.19	1.36	0.90	1.12	0.84
Nov-10	5862.70	9184.19	6703.60	4644.59	8355.50	8855.99	1.29	1.16	1.25	1.80	1.02	0.85
Dec-10	6134.50	9409.72	7491.10	4587.52	8598.28	9060.86	0.93	0.70	0.78	1.57	1.31	1.06
Jan-11	5505.90	8595.70	6971.25	3950.82	7987.81	8143.53	1.17	1.14	1.53	1.49	1.34	1.03
Feb-11	5333.25	8730.35	6666.30	3938.37	7321.45	7674.96	1.50	1.74	1.24	1.82	1.60	1.13
Mar-11	**5833.75**	**9188.45**	**7148.10**	**4291.17**	**7701.10**	**8367.29**	**1.25**	**0.97**	**1.46**	**1.32**	**1.35**	**1.08**
Apr-11	5749.50	9585.45	6718.35	4317.95	7976.65	9029.09	1.04	0.84	1.99	1.01	1.24	0.51
May-11	5560.15	9827.65	6538.50	3986.34	8136.42	9133.43	1.13	1.14	0.81	1.51	2.10	1.07
Jun-11	5647.40	10369.00	6624.70	3962.35	8135.00	9605.65	0.97	1.11	1.28	0.99	1.38	0.80
Jul-11	5482.00	10435.75	6335.10	4140.69	8172.47	9859.48	0.98	0.93	1.08	1.13	1.85	0.85
Aug-11	5001.00	10050.20	5451.25	3713.61	7587.46	9434.95	1.55	1.09	2.72	1.75	1.61	1.10
Sep-11	**4943.25**	**9947.65**	**5678.90**	**3591.68**	**7474.72**	**8718.97**	**1.62**	**1.18**	**2.16**	**1.35**	**1.14**	**0.76**

Source: NSE

Exchange-Traded Funds

The first ETF in India, the Nifty BeES (Nifty Benchmark Exchange Traded Scheme) based on the Nifty 50, was launched in January 2002 by the Benchmark Asset Management Company. It can be bought and sold like any other stock on the NSE's trading platform, and has all characteristics of an index fund. Exchange-traded funds are discussed in detail in Chapter 3.

Liquidity

Many of the securities that are listed on the stock exchanges are not getting actively traded. The percentage of companies traded on the BSE was quite low in comparison to that on the NSE during the period April 2010 to September 2011. In September 2011, only 55.99 percent of the companies traded on the BSE, while 97.71 percent of the companies traded on the NSE (Table 4-17).

Table 4-17: Trading Frequency on NSE and BSE

Month/Year	NSE			BSE		
	Companies Available for Trading*	Companies Traded	% of Traded to Available for Trading	Companies Available for Trading*	Companies Traded	% of Traded to Available for Trading
Apr-10	1,367	1,346	98.46	4,977	3,187	64.00
May-10	1,374	1,349	98.18	4,978	3,182	63.90
Jun-10	1,388	1,364	98.27	4,986	2,965	59.50
Jul-10	1,392	1,373	98.64	4,990	3,029	60.70
Aug-10	1,408	1,389	98.65	4,996	3,010	60.20
Sep-10	1,412	1,395	98.80	4,997	3,055	61.10
Oct-10	1,435	1,415	98.60	5,019	3,076	61.29
Nov-10	1,440	1,419	98.50	5,022	2,992	59.58
Dec-10	1,456	1,432	98.40	5,034	3,048	60.55
Jan-11	1,462	1,440	98.50	5,047	2,984	59.12
Feb-11	1,470	1,444	98.20	5,054	2,913	57.64
Mar-11	1,484	1,450	97.70	5,067	2,933	57.88
Apr-11	1,488	1,453	97.60	5,069	2,977	58.70
May-11	1,495	1,463	97.90	5,078	2,924	57.60
Jun-11	1,509	1,474	97.70	5,085	2,968	58.40
Jul-11	1,514	1,478	97.60	5,096	2,976	58.40
Aug-11	1,523	1,489	97.77	5,086	2,921	57.43
Sep-11	1,530	1,495	97.71	5,092	2,851	55.99

Source: SEBI, NSE
** As at the end of the month; includes listed/permitted to trade companies, but excludes suspended companies.*

The share of companies that traded on the BSE for more than 100 days in 2010–2011 has come down to 85.37 percent from 88.58 percent recorded in 2009–2010; on the NSE, it has increased to 93.71 percent from 92.86 percent in 2009–2010 (Table 4-18). During the year 2010–2011, out of 3,752 companies that were traded on the BSE, 7.20 percent witnessed trading for less than 11 days compared to 1.88 percent of the NSE companies that witnessed trading for less than 11 days.

Table 4-18: Trading Frequency of Listed Stocks

Trading Frequency (Range of Days)	2008-09				2009-10				2010-11			
	BSE		NSE		BSE		NSE		BSE		NSE	
	No. of Shares Traded	Percent-age of Total	No. of Shares Traded	Percent-age of Total	No. of Shares Traded	Percent-age of Total	No. of Shares Traded	Percent-age of Total	No. of Shares Traded	Percent-age of Total	No. of Shares Traded	Percent-age of Total
Above 100	2,831	87.22	1,273	97.85	2,986	88.58	1,301	92.86	3,203	85.37	1,444	93.71
91-100	29	0.89	5	0.38	22	0.65	15	1.07	28	0.75	7	0.45
81-90	32	0.99	4	0.31	26	0.77	3	0.21	21	0.56	5	0.32
71-80	21	0.65	0	0.00	24	0.71	9	0.64	31	0.83	7	0.45
61-70	24	0.74	1	0.08	27	0.80	2	0.14	35	0.93	11	0.71
51-60	25	0.77	2	0.15	21	0.62	23	1.64	33	0.88	5	0.32
41-50	33	1.02	4	0.31	30	0.89	6	0.43	26	0.69	6	0.39
31-40	34	1.05	4	0.31	29	0.86	6	0.43	29	0.77	8	0.52
21-30	32	0.99	2	0.15	28	0.83	9	0.64	19	0.51	8	0.52
11-20	38	1.17	3	0.23	39	1.16	14	1.00	57	1.52	11	0.71
1-10	147	4.53	3	0.23	139	4.12	13	0.93	270	7.20	29	1.88
Total	**3,246**	**100.00**	**1,301**	**100.00**	**3,371**	**100.00**	**1,401**	**100.00**	**3,752**	**100.00**	**1,541**	**100.00**

Source: BSE, NSE

Takeovers

In 2010–2011, there were 102 takeovers under the open category involving ₹ 192,980 million (US $ 4,322 million) as against 76 takeovers involving ₹ 58,580 million (US $ 1,298 million) in the preceding year (Table 4-19). Under the exempted category, there were 410 takeovers involving ₹ 280,420 million (US $ 6,280 million) as against 206 takeovers involving ₹ 138,640 million (US $ 3,071 million) in the previous year.

Table 4-19: Substantial Acquisition of Shares and Takeovers

Year	Open Offers									Automatic Exemption		
	Objectives						Total			Number	Value of Shares Acquired	
	Change in Control of Management		Consolidation of Holdings		Substantial Acquisition							
	Number	Value (₹mn)	Number	Value (₹mn)	Number	Value (₹ mn)	Number	Value (₹mn)	Value (US $ mn)		(₹ mn)	(US $ mn)
1994-95	0	0	1	1,140	1	42	2	1,182		–	–	
1995-96	4	301	4	255	0	0	8	556		–	–	
1996-97	11	118	7	783	1	23	19	924		–	–	
1997-98	18	1,429	10	3,398	13	956	41	5,784		93	35,022	
1998-99	29	997	24	4,163	12	3,271	65	8,430	199	201	18,881	445
1999-00	42	2,588	9	711	23	1,300	74	4,599	105	252	46,774	1,072
2000-01	70	11,404	5	1,890	2	425	77	13,719	294	248	48,732	1,045
2001-02	54	17,562	26	18,152	1	390	81	36,104	740	276	25,390	520
2002-03	46	38,144	40	25,733	2	14	88	63,891	1,345	238	24,284	511
2003-04	38	3,952	16	1,966	11	10,030	65	15,948	368	171	14,357	331
2004-05	35	35,030	12	1,650	14	9,640	61	46,320	1,059	212	69,580	1,590
2005-06	78	32,520	9	1,190	15	7,090	102	40,800	915	245	171,320	3,840
2006-07	66	67,710	15	44,980	6	830	87	113,520	2,604	223	186,080	4,269
2007-08	78	116,570	28	132,540	8	37,960	114	287,070	7,182	232	64,580	1,616
2008-09	80	37,130	13	5,980	6	4,000	99	47,110	925	227	105,020	2,061
2009-10	56	36,490	14	17,610	6	4,480	76	58,580	1,298	206	138,640	3,071
2010-11	71	102,510	17	89,020	14	1,450	102	192,980	4,322	410	280,420	6,280
Apr-Sep 2011	19	21,950	1	30	3	470	23	22,450	459	86	84,790	1,733
Total	**795**	**526,406**	**251**	**351,191**	**138**	**82,371**	**1,184**	**959,968**	**21,814**	**3,320**	**1,313,870**	**28,386**

Source: SEBI.

Settlement Statistics

The details of the settlement of the trades on the CM segment of the NSE are provided in Annexure 4-3. There was a substantial reduction in short and bad deliveries, as short deliveries averaged around to a level of 0.18 percent of the total delivery in 2010–2011 compared to the 0.39 percent recorded in 2005–2006. In 2010–2011, taking all the stock exchanges into account, 31.21 percent of the securities (accounting for 27.35 percent of the turnover) was settled by delivery, and the balance was squared up/netted out (Table 4-20). In the preceding year, 25.07 percent of the shares (accounting for 22.26 percent of the turnover) was settled by delivery. This indicates that the preference for delivery-based trades had increased during the year.

Table 4-20: Delivery Pattern in Stock Exchanges (in percentage)

Sr. no	Exchange	2008-09		2009-10		2010-11	
		Quantity	Value	Quantity	Value	Quantity	Value
1	NSE	21.38	22.18	21.49	22.15	27.47	27.34
2	BSE	26.55	20.94	31.99	22.58	38.02	27.34
3	Calcutta	93.19	94.66	73.32	48.88	77.25	50.03
4	Delhi	0.00	0.00	0.00	0.00	0.00	0.00
5	Ahmedabad	0.00	0.00	0.00	0.00	0.00	0.00
6	Uttar Pradesh	1.26	0.19	0.56	0.16	0.86	1.67
7	Bangalore	0.00	0.00	0.00	0.00	0.00	0.00
8	Ludhiana	0.00	0.00	0.00	0.00	0.00	0.00
9	Pune	0.00	0.00	0.00	0.00	0.00	0.00
10	OTCEI	0.00	0.00	0.00	0.00	0.00	0.00
11	ISE	0.00	0.00	0.00	0.00	0.00	0.00
12	Madras	0.00	0.00	0.00	0.00	0.00	0.00
13	Vadodara	0.00	0.00	0.00	0.00	0.00	0.00
14	Bhubaneshwar	0.00	0.00	0.00	0.00	0.00	0.00
15	Coimbatore	0.00	0.00	0.00	0.00	0.00	0.00
16	Madhya Pradesh	0.00	0.00	0.00	0.00	0.00	0.00
17	Jaipur	0.00	0.00	0.00	0.00	0.00	0.00
18	Gauhati	0.00	0.00	0.00	0.00	0.00	0.00
19	Cochin	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**23.15**	**21.83**	**25.07**	**22.26**	**31.21**	**27.35**

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 the 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 the members and their net worth, undertakes online monitoring of the members' positions and exposure in the market, collects margins from the members, and automatically disables members if the limits are breached. The risk management methods adopted by the NSE have brought the Indian stock market in line with the international markets.

Risk Containment Measures

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

Capital Adequacy

The capital adequacy requirements stipulated by the NSE are substantially in excess of the minimum statutory requirements in comparison to those stipulated by the other stock exchanges. Corporates seeking membership in the CM and the F&O segments are required to have a net worth of ₹ 100 lakh, and should keep an interest-free security deposit of ₹ 125 lakh and collateral security deposit of ₹ 25 lakh with the Exchange/NSCCL. The deposits kept with the Exchange as part of the membership requirement may be used towards the margin requirement of the member. Additional capital may be provided by the member for taking additional exposure. The capital adequacy norms for corporates and individuals/ partnership firms are presented in detail in Table 4-2, Table 4-4, and Table 4-5.

Online Monitoring

The NSCCL has put in place an online monitoring and surveillance system, through which the 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 percent, 85 percent, 90 percent, 95 percent, and 100 percent) as and when the members approach these limits. The system enables the NSCCL to further check the micro-details of the members' positions and take pro-active action if required.

The online surveillance mechanism also generates alerts/reports on any price/volume movements of securities that are not in line with past trends/patterns. The open positions of the securities are also analyzed. For this purpose, the Exchange maintains various databases to generate alerts. These alerts are scrutinized and taken up for follow up action, if necessary. In addition to this, rumours in the print media are tracked, and where they are found to be price sensitive, the companies concerned are approached to verify the same. This is then publicized to the members and the public.

Offline Surveillance Activity

The offline surveillance activity consists of inspections and investigations. As per the regulatory requirement, trading members are to be inspected in order to verify their levels of compliance with the various rules, bye-laws, and regulations of the Exchange. The inspection verifies if the investors' interests are being compromised in the conduct of business by the members.

Margin Requirements

The NSCCL imposes stringent margin requirements as part of its risk containment measures. The categorization of stocks for the imposition of margins has the following structure:

- Stocks that have traded for at least 80 percent of the days in the previous six months shall constitute Group I and Group II.
- Out of the scrips identified for Group I and II categories, the scrips having a mean impact cost less than or equal to 1 percent 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 thus calculated, the scrips move from one group to another group from the first day of the next month.
- For securities that have been listed for less than six months, the trading frequency and the impact cost are computed using the entire trading history of the security.

Categorization of newly listed securities

For the first month and till the time of the monthly review, a newly listed security is categorized in that group where the market capitalization of the newly listed security exceeds or equals the market capitalization of 80 percent 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 the ISIN, the securities bearing the new ISIN are treated as newly listed security for group categorization.

Daily margins are composed of the VaR margin, the Extreme Loss margin, and the Mark to Market margin.

1. Value at Risk Margin

All securities are classified into three groups for the purpose of the Value a Risk (VaR) margin:

- For the securities listed in Group I, the scrip-wise daily volatility calculated using the exponentially weighted moving average methodology is applied to daily returns. The scrip-wise daily VaR is 3.5 times the volatility so calculated, subject to a minimum of 7.5 percent.
- For the securities listed in Group II, the VaR margin is the higher of the 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 is scaled up by root 3.

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

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

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

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

2. Extreme Loss Margin

The Extreme Loss Margin for any security is the higher of 5 percent or 1.5 times the standard deviation of the daily logarithmic returns of the security price in the last six months.

This computation is done at the end of each month by taking the price data on a rolling basis for the past six months, and the resulting value is applicable for the next month.

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

3. Mark to Market Margin

Mark to market loss is calculated by marking each transaction in a 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 the sell values is considered as the notional loss for the purpose of calculating the mark to market margin payable.

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

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

Close-out Facility

An online facility to close out open positions of the 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 those orders that result in the 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 codes, or to close out open positions of securities in the trade for trade segment.

Index-based Market-wide Circuit Breakers

The index-based market-wide circuit breaker system applies at three stages of the index movement, namely, at 10 percent, 15 percent, and 20 percent either way When triggered, these circuit breakers bring about a coordinated trading halt in all the equity and equity derivative markets nationwide. The market-wide circuit breakers are triggered by the movement of either the BSE Sensex or the NSE S&P CNX Nifty, whichever is breached earlier.

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

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

The 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 the entries of non-genuine orders with utmost seriousness, as this has marketwide repercussions.

Daily Price Bands on Securities

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

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

No price bands are applicable on the scrips on which derivative products are available or the scrips included in indices on which derivative products are available (unless otherwise specified). In order to prevent members from entering orders at non-genuine prices in such securities, the Exchange has fixed an operating range of 20 percent. Price bands of 20 percent (either way) are applicable on all remaining scrips (including debentures, preference shares, etc).

The price bands for the securities in the limited physical market are the same as those applicable for the securities in the normal market. For the auction market, the price bands of 20 percent are applicable.

Settlement Guarantee Fund

The Settlement Guarantee Fund provides a cushion for any residual risk and operates like a self-insurance mechanism, wherein the members themselves contribute to the fund. In the event of a trading member failing to meet his settlement obligation, the fund is utilized to the extent required for the successful completion of the settlement. This eliminates the counter-party risk of trading on the Exchange. The market has full confidence that the settlement shall take place in time and shall be completed irrespective of default by isolated trading members. As of September 2011, the Settlement Guarantee Fund was ₹ 4,791 Crore.

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

Sr. no.	Exchange	Registered Brokers			Registered Sub-Brokers		
		2009	2010	2011	2009	2010	2011
1	Ahmedabad	325	329	333	96	95	93
2	Bangalore	257	261	270	158	158	158
3	BSE	984	1,003	1,301	30,059	33,710	38,124
4	Bhubaneshwar	213	214	215	17	17	16
5	Calcutta	926	908	901	84	81	79
6	Cochin	435	438	441	43	41	41
7	Coimbatore	135	135	136	19	20	20
8	Delhi	375	455	481	261	255	239
9	Gauhati	103	98	97	4	4	4
10	ICSEIL	946	943	943	3	2	1
11	Jaipur	488	484	481	33	32	32
12	Ludhiana	301	300	307	36	36	35
13	Madhya Pradesh	174	192	203	5	5	5
14	Madras	183	193	211	110	109	109
15	NSE	1,243	1,310	1,389	31,328	40,600	44,783
16	OTCEI	713	704	701	19	17	17
17	Pune	188	186	185	156	156	156
18	Uttar Pradesh	351	339	328	3	3	3
19	Vadodara	312	312	312	37	37	37
	Total	**8,652**	**8,804**	**9,235**	**62,471**	**75,378**	**83,952**

Source: SEBI

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

Month/ Year	No. of Trading Days	No. of Companies Traded	No. of Trades (mn.)	Traded Quantity (mn.)	Turnover (₹ mn.)	Average Daily Turnover (₹ mn.)	Turnover Ratio (%)	Demat Securities Traded (mn.)	Demat Turnover (₹ mn.)	Demat Turnover as a % of Total Turnover	Market Capitalisation (₹ mn.) *
2001-02	**247**	**1,019**	**175**	**27,841**	**5,131,674**	**20,776**	**80.58**	**27,772**	**5,128,661**	**99.94**	**6,368,610**
2002-03	**251**	**899**	**240**	**36,407**	**6,179,886**	**24,621**	**115.05**	**36,405**	**6,179,845**	**100.00**	**5,371,332**
2003-04	**254**	**804**	**379**	**71,330**	**10,995,339**	**43,289**	**98.09**	**71,330**	**10,995,339**	**100.00**	**11,209,760**
2004-05	**253**	**856**	**451**	**79,769**	**11,400,720**	**45,062**	**71.90**	**79,769**	**11,400,720**	**100.00**	**15,855,853**
2005-06	**251**	**928**	**609**	**84,449**	**15,695,579**	**62,532**	**55.79**	**84,449**	**15,695,579**	**100.00**	**28,132,007**
2006-07	**249**	**1,114**	**785**	**85,546**	**19,452,865**	**78,124**	**57.77**	**85,546**	**19,452,865**	**100.00**	**33,673,500**
2007-08	**251**	**1,244**	**1,173**	**149,847**	**35,510,382**	**141,476**	**73.09**	**149,847**	**35,510,382**	**100.00**	**48,581,217**
2008-09	**243**	**1277**	**1,365**	**142,635**	**27,520,230**	**113,252**	**95.02**	**142,635**	**27,520,230**	**100.00**	**28,961,942**
2009-10	**244**	**1,359**	**1,682**	**221,553**	**41,380,234**	**169,591**	**68.86**	**221,553**	**41,380,234**	**100.00**	**60,091,732**
Apr-10	20	1,346	121	14,406	2,765,655	138,283	---	14,406	2,765,655	100.00	61,178,575
May-10	22	1,349	125	13,981	2,846,249	129,375	---	13,981	2,846,249	100.00	59,325,783
Jun-10	22	1,364	125	14,362	2,861,092	130,050	---	14,362	2,861,092	100.00	62,291,356
Jul-10	22	1,373	122	13,942	2,785,508	126,614	---	13,942	2,785,508	100.00	63,401,199
Aug-10	22	1,389	136	15,247	3,119,937	141,815	---	15,247	3,119,937	100.00	63,934,175
Sep-10	21	1,395	137	17,329	3,298,687	157,080	---	17,329	3,298,687	100.00	69,585,335
Oct-11	21	1,415	145	19,325	3,604,716	171,653	---	19,325	3,604,716	100.00	70,550,938
Nov-11	21	1,419	141	18,822	3,639,930	173,330	---	18,822	3,639,930	100.00	68,949,117
Dec-11	22	1,432	131	15,111	2,956,850	134,402	---	15,111	2,956,850	100.00	71,393,098
Jan-11	20	1,440	118	13,022	2,673,318	133,666	---	13,022	2,673,318	100.00	64,414,909
Feb-11	20	1,444	128	14,117	2,665,037	133,252	---	14,117	2,665,037	100.00	61,959,673
Mar-11	22	1,450	123	12,790	2,557,119	116,233	---	12,790	2,557,119	100.00	67,026,156
2010-11	**255**	**1,483**	**1,551**	**182,451**	**35,774,098**	**140,291**	**53.37**	**182,451**	**35,774,098**	**100.00**	**67,026,156**
Apr-11	18	1,453	107	12,943	2,283,484	126,860	---	12,943	2,283,484	100.00	67,536,144
May-11	22	1,463	115	11,586	2,338,760	106,307	---	11,586	2,338,760	100.00	65,697,427
Jun-11	22	1,474	116	12,230	2,224,571	101,117	---	12,230	2,224,571	100.00	65,747,432
Jun-11	21	1,478	116	12,259	2,300,025	109,525	---	12,259	2,300,025	100.00	64,622,377
Aug-11	21	1,489	124	13,311	2,352,534	112,025	---	13,311	2,352,534	100.00	59,216,837
Sep-11	21	1,495	123	13,230	2,352,702	112,033	---	13,230	2,352,702	100.00	58,203,341
Apr - Sep 2011	**125**	**1,502**	**700**	**75,558**	**13,852,076**	**110,817**	**23.80**	**75,558**	**13,852,076**	**100.00**	**58,203,341**

Source: NSE

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

Month/ Year	No. of Trades (mn.)	Traded Quantity (mn.)	Quantity of Shares Deliverable (mn.)	% of Shares Deliverable to Total SharesTraded	Turnover (₹ mn.)	Value of Shares Deliverable (₹ mn.)	Turnover (US $. mn.)	Value of Shares Deliverable (US$. mn.)	% of Deliverable to Value of Shares Traded	Securities Pay-in (₹ mn.)	Short Delivery (Auctioned quantity) (mn.)	% of Short Delivery to Delivery	Unrectified Bad Delivery (Auctioned quantity) (mn.)	% of Unrectified Bad Delivery to Delivery	Funds Pay-in (₹ mn.)
2005-06	**600**	**81,844**	**22,724**	**27.77**	**15,168,390**	**4,093,525**	**340,022**	**91,762**	**26.99**	**4,079,759**	**89**	**0.39**	**0.00**	**0.00**	**1,314,256**
2006-07	**786**	**85,051**	**23,907**	**28.11**	**19,400,943**	**5,444,345**	**445,078**	**124,899**	**28.06**	**5,430,475**	**77**	**0.32**	**0.00**	**0.00**	**1,731,877**
2007-08	**1,165**	**148,123**	**36,797**	**24.84**	**35,199,186**	**9,728,029**	**880,640**	**22,033**	**27.64**	**9,706,179**	**100**	**0.27**	**0.00**	**0.00**	**3,095,432**
2008-09	**1,364**	**141,893**	**27,527**	**21.59**	**27,494,501**	**6,115,350**	**539,637**	**120,027**	**21.97**	**6,104,977**	**62.52**	**0.20**	**-**	**-**	**2,207,040**
2009-10	**1,679**	**220,588**	**47,481**	**21.86**	**41,292,136**	**9,177,054**	**914,757**	**203,302**	**22.22**	**9,164,601**	**86.19**	**0.18**	**0**	**0**	**2,783,871**
Apr-10	120	14,072	3,889	27.64	2,733,438	746,424	60,851	16,617	27.31	747,444	6.92	0.18	0.00	0.00	193,105
May-10	125	14,160	3,728	26.33	2,879,308	760,402	64,099	16,928	26.41	761,223	5.16	0.14	0.00	0.00	235,415
Jun-10	124	14,101	3,455	24.50	2,827,478	707,095	62,945	15,741	25.01	708,010	6.00	0.17	0.00	0.00	222,920
Jul-10	122	14,013	3,865	27.58	2,767,341	766,652	61,606	17,067	27.70	767,535	5.97	0.15	0.00	0.00	201,454
Aug-10	136	15,369	4,424	28.79	3,164,313	873,577	70,443	19,447	27.61	875,209	14.65	0.33	0.00	0.00	216,752
Sep-10	130	15,691	4,490	28.61	3,029,842	873,482	67,450	19,445	28.83	874,714	8.78	0.20	0.00	0.00	273,162
Oct-10	149	19,853	5,560	28.01	3,687,482	1,055,391	82,586	23,637	28.62	1,056,738	8.21	0.15	0.00	0.00	284,793
Nov-10	141	18,875	5,387	28.54	3,701,566	1,048,407	82,902	23,481	28.32	1,049,959	10.92	0.20	0.00	0.00	354,674
Dec-10	134	15,448	4,121	26.68	3,026,259	820,824	67,777	18,384	27.12	821,712	7.55	0.18	0.00	0.00	247,442
Jan-11	117	12,907	3,630	28.13	2,645,481	740,280	59,249	16,580	27.98	741,047	5.59	0.15	0.00	0.00	258,393
Feb-11	126	14,007	3,808	27.19	2,654,165	711,098	59,444	15,926	26.79	711,906	5.36	0.14	0.00	0.00	222,172
Mar-11	125	12,595	3,378	26.82	2,535,277	676,523	56,781	15,152	26.68	677,199	5.19	0.15	0.00	0.00	223,293
2010-11	**1,548**	**181,091**	**49,737**	**27.47**	**35,651,949**	**9,780,153**	**796,133**	**218,404**	**27.43**	**9,792,694**	**90.30**	**0.18**	**0.00**	**0.00**	**2,933,574**
Apr-11	107	12,953	3,819	29.49	2,304,642	657,899	47,105	13,447	28.55	658,740	10.91	0.29	0.00	0.00	203,577
May-11	116	11,868	3,485	29.36	2,374,099	686,709	48,525	14,036	28.93	688,234	11.28	0.32	0.00	0.00	205,258
Jun-11	116	11,939	3,286	27.52	2,201,788	625,039	45,003	12,775	28.39	625,751	4.34	0.13	0.00	0.00	185,083
Jul-11	115	11,910	3,483	29.24	2,267,742	660,314	46,351	13,496	29.12	661,051	4.68	0.13	0.00	0.00	196,602
Aug-11	125	13,593	3,997	29.40	2,412,150	696,128	49,303	14,228	28.86	696,743	4.76	0.12	0.00	0.00	221,988
Sep-11	116	12,540	3,285	26.19	2,205,445	587,409	45,078	12,006	26.63	588,056	4.39	0.13	0.00	0.00	225,706
Apr - Sep 2011	**695**	**74,802**	**21,354**	**28.55**	**13,765,865**	**3,913,498**	**281,365**	**79,989**	**28.43**	**3,918,575**	**40.36**	**0.19**	**0.00**	**0.00**	**1,238,214**

Source: NSE

Table 4-4: Component Stock of Nifty for September 2011

Sl. No.	Name of Security	Issued Capital (₹ crore)	Free Float Market Capitalisation (₹ crore)	Weightage (Percent)	Beta	R^2	Daily Volatility (Percent)	Monthly Return (Percent)	Impact Cost (Percent)
1	2	3	4	5	6	7	8	9	10
1	ACC Ltd.	187.7	10,251.0	0.7	0.6	0.5	1.6	9.6	0.08
2	Ambuja Cements Ltd.	306.4	11,191.0	0.8	0.8	0.5	2.9	11.9	0.09
3	Axis Bank Ltd.	412.2	26,399.0	1.8	1.4	0.8	2.8	(5.0)	0.09
4	Bajaj Auto Ltd.	289.4	20,612.0	1.4	0.8	0.6	1.9	(2.4)	0.09
5	Bharti Airtel Ltd.	1,898.8	45,516.0	3.1	0.7	0.5	1.8	(6.6)	0.08
6	Bharat Heavy Electricals Ltd.	489.5	25,908.0	1.8	0.8	0.6	1.7	(7.3)	0.08
7	Bharat Petroleum Corporation Ltd.	361.5	8,370.0	0.6	0.7	0.5	1.3	(4.0)	0.10
8	Cairn India Ltd.	1,902.5	9,919.0	0.7	0.8	0.5	2.8	(2.4)	0.10
9	Cipla Ltd.	160.6	14,277.0	1.0	0.6	0.5	1.6	0.2	0.10
10	DLF Ltd.	339.5	7,941.0	0.5	1.4	0.6	3.4	11.3	0.08
11	Dr. Reddy's Laboratories Ltd.	84.7	18,696.0	1.3	0.6	0.5	1.1	(0.9)	0.09
12	GAIL (India) Ltd.	1,268.5	18,441.0	1.2	0.6	0.5	2.0	(0.0)	0.10
13	Grasim Industries Ltd.	91.7	14,864.0	1.0	0.6	0.5	1.8	7.2	0.11
14	HCL Technologies Ltd.	137.9	10,048.0	0.7	1.1	0.7	3.0	(0.4)	0.09
15	Housing Development Finance Corporation Ltd.	294.2	84,955.0	5.7	1.1	0.7	1.9	(3.3)	0.08
16	HDFC Bank Ltd.	467.2	83,807.0	5.7	1.1	0.8	1.8	(0.9)	0.09
17	Hero MotoCorp Ltd.	39.9	18,530.0	1.3	0.4	0.2	2.0	(5.4)	0.06
18	Hindalco Industries Ltd.	191.4	16,906.0	1.1	1.4	0.7	2.9	(12.7)	0.09
19	Hindustan Unilever Ltd.	216.1	34,934.0	2.4	0.5	0.4	1.8	6.3	0.07
20	ICICI Bank Ltd.	1,152.1	100,852.0	6.8	1.3	0.8	2.2	0.3	0.08
21	Infrastructure Development Finance Co. Ltd.	1,463.0	13,092.0	0.9	1.4	0.7	2.2	(2.8)	0.09
22	Infosys Ltd.	287.1	122,119.0	8.2	1.0	0.7	2.4	8.1	0.07
23	I T C Ltd.	776.4	105,783.0	7.1	0.7	0.6	1.5	(1.0)	0.07
24	Jindal Steel & Power Ltd.	93.5	19,673.0	1.3	1.1	0.7	2.2	(2.9)	0.10
25	Jaiprakash Associates Ltd.	425.3	8,223.0	0.6	1.9	0.7	4.2	18.6	0.10
26	Kotak Mahindra Bank Ltd.	369.2	16,984.0	1.2	1.2	0.7	2.1	3.8	0.10
27	Larsen & Toubro Ltd.	122.2	72,851.0	4.9	1.1	0.7	1.8	(15.6)	0.08
28	Mahindra & Mahindra Ltd.	307.0	37,126.0	2.5	1.1	0.7	1.9	9.0	0.08
29	Maruti Suzuki India Ltd.	144.5	14,327.0	1.0	0.8	0.6	2.1	(0.8)	0.09
30	NTPC Ltd.	8,245.5	21,427.0	1.4	0.7	0.6	2.0	(1.0)	0.09
31	Oil & Natural Gas Corporation Ltd.	4,277.7	35,897.0	2.4	0.5	0.4	1.8	1.1	0.07
32	Punjab National Bank	316.8	12,681.0	0.9	0.9	0.7	1.7	2.5	0.09
33	Power Grid Corporation of India Ltd.	4,629.7	13,938.0	0.9	0.6	0.5	1.5	(1.8)	0.07
34	Ranbaxy Laboratories Ltd.	210.8	7,847.0	0.5	0.8	0.5	1.6	8.8	0.07
35	Reliance Communications Ltd.	1,032.0	4,759.0	0.3	1.4	0.5	3.8	(9.8)	0.11
36	Reliance Capital Ltd.	245.6	3,550.0	0.2	1.5	0.6	4.3	(18.0)	0.09
37	Reliance Industries Ltd.	3,274.3	136,344.0	9.2	1.1	0.7	2.6	3.3	0.08
38	Reliance Infrastructure Ltd.	265.2	5,142.0	0.4	1.2	0.5	3.4	(14.4)	0.09
39	Reliance Power Ltd.	2,805.1	4,215.0	0.3	1.1	0.6	2.7	(9.6)	0.10
40	Steel Authority of India Ltd.	4,130.4	6,188.0	0.4	1.2	0.6	3.1	(2.1)	0.10
41	State Bank of India	635.0	49,265.0	3.3	1.2	0.7	2.3	(3.2)	0.06
42	Sesa Goa Ltd.	86.9	7,821.0	0.5	1.0	0.5	2.0	(14.3)	0.09

Contd.

Contd.

Sl. No.	Name of Security	Issued Capital (₹ crore)	Free Float Market Capitalisation (₹ crore)	Weightage (Percent)	Beta	R^2	Daily Volatility (Percent)	Monthly Return (Percent)	Impact Cost (Percent)
1	2	3	4	5	6	7	8	9	10
43	Siemens Ltd.	68.1	7,127.0	0.5	0.6	0.4	1.9	(5.4)	0.10
44	Sterlite Industries (India) Ltd.	336.2	16,021.0	1.1	1.3	0.7	3.3	(11.6)	0.11
45	Sun Pharmaceutical Industries Ltd.	103.6	17,379.0	1.2	0.7	0.5	1.5	(5.9)	0.10
46	Tata Motors Ltd.	538.3	27,370.0	1.9	1.5	0.7	3.7	5.1	0.10
47	Tata Power Co. Ltd.	237.3	16,159.0	1.1	0.6	0.5	2.0	(4.4)	0.13
48	Tata Steel Ltd.	959.2	27,648.0	1.9	1.2	0.7	2.3	(11.4)	0.07
49	Tata Consultancy Services Ltd.	195.7	52,633.0	3.6	1.1	0.7	2.2	(0.5)	0.08
50	Wipro Ltd.	491.4	17,336.0	1.2	0.9	0.7	2.3	1.7	0.09
TOTAL			**1,483,344.0**	**100**					**0.08**

Source: NSE

* *Beta & R^2 are calculated for the period 01-Oct-2010 to 30-Sep-2011*

* *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-Sep-2011 to 30-Sep-2011*

* *Last day of trading was 30-Sep-2011*

* *Impact Cost for S&P CNX Nifty is for a portfolio of ₹ 50 Lakhs*

* *Impact Cost for S&P CNX Nifty is the weightage average impact cost*

5. Debt Market

Introduction[1]

The debt market in India consists of mainly two categories—the government securities or the G-Sec markets comprising central government and state government securities, and the corporate bond market. In order to finance its fiscal deficit, the government floats fixed income instruments and borrows money by issuing G-Secs that are sovereign securities issued by the Reserve Bank of India (RBI) on behalf of the Government of India. The corporate bond market (also known as the non-Gsec market) consists of financial institutions (FI) bonds, public sector units (PSU) bonds, and corporate bonds/debentures.

The G-secs are the most dominant category of debt markets and form a 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, although a market for OTC derivatives in interest rate products exists. The exchange-traded interest rate derivatives that were introduced recently are debt instruments; this market is currently small, and would gradually pick up in the years to come.

Trends

In 2010–2011, the government and the corporate sector collectively mobilized ₹ 7,851,973 million (US $ 175,856 million) from the primary debt market, a decrease of 3.73 percent compared to the preceding year's numbers (Table 5-1). About 74.32 percent of the resources were raised by the government (the central and the state governments), while the balance was mobilized by the corporate sector through public and private placement issues. The turnover in the secondary debt market in 2010–2011 aggregated ₹ 72,274,164 million (US $ 1,618,682 million), 14.82 percent lower than that in the previous fiscal year.

Table 5-1: Debt Market—Selected Indicators

Issuer / Securities	Amount raised form Primary Market		Turnover in Secondary Market		Amount raised form Primary Market		Turnover in Secondary Market	
	(₹ mn.)		(₹ mn.)		(US $ mn.)		(US $ mn.)	
	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
Government	6,236,190	5,835,210	84,337,567	70,682,541*	138,152	130,688	1,868,355	1,583,036
Corporate/Non Government	1,919,902	2,016,763	1,442,484	1,591,623	42,532	45,168	31,956	35,647
Total	**8,156,092**	**7,851,973**	**85,780,050**	**72,274,164**	**180,684**	**175,856**	**1,900,311**	**1,618,682**

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

[1] This chapter discusses the market design and outcomes in the government securities market, both in the primary and the secondary segments. The data available for the 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 the primary corporate debt market are discussed in Chapter 2.

Policy Developments

I. RBI modifies guidelines for securitization companies/reconstruction companies (SCs/RCs)

On April 21, 2010, the RBI modified the guidelines issued to SCs/RCs on various aspects, in order to bring about more transparency and market discipline.

II. India Infrastructural Finance Company Limited permitted to undertake ready forward contracts in corporate debt securities

Vide an RBI circular dated April 16, 2010, the India Infrastructural Finance Company Limited (IIFCL) was permitted to undertake ready forward contracts in corporate debt securities. The entities that are eligible to enter into ready forward contracts in corporate debt securities are mentioned in the Repo in Corporate Debt Securities (Reserve Bank) Directions, 2010. These regulations were released in January 2010, and were made effective in March 2010. According to these regulations, the following entities are allowed to enter into ready forward contracts in corporate debt securities:

a) Scheduled commercial banks, excluding RRBs and LABs;

b) Primary dealers authorized by the RBI;

c) NBFCs registered with the RBI (other than government companies as defined in Section 617 of the Companies Act, 1956);

d) All India Financial Institutions—Exim Bank, NABARD, NHB, SIDBI, and other regulated entities such as any mutual fund registered with SEBI, any housing finance company registered with the National Housing Bank, and any insurance company registered with the Insurance Regulatory and Development Authority.

III. RBI places the draft report of the Internal Group on introduction of credit default swaps (CDS) for corporate bonds

On August 4, 2010, the RBI came out with a draft report on the introduction of credit default swaps (CDS) for corporate bonds for public comments.

IV. Clarification for NBFCs participating in ready forward contracts in corporate debt securities

On August 11, 2010, the RBI notified that the Non-Banking Financial Companies (NBFCs) registered with RBI (other than government companies as defined in Section 617 of the Companies Act, 1956) are eligible to participate in repo transactions in corporate debt securities. The revised guidelines by the RBI's IDMD department on uniform accounting for repo/reverse repo transactions were issued on March 23, 2010. It was clarified that the NBFCs should have an asset size of ₹ 100 crore and above (i.e., NBFCs-ND-SI), and the risk weights for credit risk for assets that are the collateral for such transactions as well as the risk weights for the counterparty credit risk shall be as applicable to the issuer/counterparty in the NBFC (non-deposit accepting or holding) Prudential Norms Directions, 2007, as amended from time to time.

V. Changes in settlement period for repo trades in corporate debt securities and changes in minimum haircut applicable on market value of corporate debt securities

The Second Quarter Review of the Monetary Policy 2010–2011announced that the repo trades in corporate debt securities were permitted to be settled on a T+0 basis in addition to the existing T+1 and T+2 bases under the DvP I (gross basis) framework. The minimum haircut applicable on the market value of the corporate debt securities prevailing on the rate of trade of the first leg, which was earlier stipulated as 25 percent, was revised as shown below:

Rating	AAA	AA+	AA
Minimum haircut	10 percent	12 percent	15 percent

VI. Allocation of government debt long term and corporate debt (old investment limits) to FIIs (Circular date: March 08, 2011)

Based on the assessment of the allocation and the utilization of the limits to FIIs for investments in debt, SEBI decided to allocate the unutilized limits in government debt long term and corporate debt (old category) in the following manner:-

a) **Allocation through bidding process:** The bidding for these limits was done on the NSE from 3:30 pm to 5:30 pm, on March 15, 2011, in terms of the SEBI Circular IMD/FII&C/37/2009 dated February 06, 2009, subject to the modifications stated below:

Government debt long term:

In partial amendment to Clause 3(h) of the SEBI Circular IMD/FII&C/37/2009, no single entity shall be allocated more than ₹ 750 crore of the investment limit. Where a single entity bids on behalf of multiple entities, in terms of Para 7 of the SEBI Circular CIR/IMD/FIIC/18/2010 dated November 26, 2010, such bids would be limited to ₹ 750 crore for every such single entity. In partial amendment to Clause 3(c) and 3(d) of the SEBI Circular IMD/FII&C/37/2009, the minimum amount that can be bid for will be ₹ 100 crore and the minimum tick size will be ₹ 50 crore.

Corporate Debt (Old limits):

No single entity shall be allocated more than ₹ 300 crore of the investment limit. Where a single entity bids on behalf of multiple entities, in terms of Para 7 of the SEBI Circular CIR/IMD/FIIC/18/2010 dated November 26, 2010, such bids would be limited to ₹ 300 crore for every such single entity. The minimum amount that can be bid for will be ₹ 100 crore, and the minimum tick size will be ₹ 50 crore.

b) **Allocation through first come first serve (FCFS) process:**

Following the terms of the SEBI Circular dated January 31, 2008, the government debt long term and the corporate debt (old limits) were allocated on an FCFS basis subject to the following conditions:

The remaining amount in the government debt long term and the corporate debt (old limits) other than the bidding process shall be allocated among the FIIs/sub-accounts on an FCFS basis. The debt requests in this regard shall be forwarded to the dedicated email id fii_debtrequests@sebi.gov.in. The window for the FCFS process shall open at 08:30 am IST on March 15, 2011. The maximum limit per request under this process shall be ₹ 50 crore. A non-utilization charge would be levied from average successful bid premiums (in the respective bidding processes) for the non-utilized part from the allocation on an FCFS basis.

VII. Listing Agreement for securitized debt instruments (Circular date: March 16, 2011)

In order to develop the primary market for securitized debt instruments in India, SEBI notified the Securities and Exchange Board of India (Public offer and Listing of Securitized Debt Instruments) Regulations, 2008. The Regulations provide a framework for the issuance and listing of securitized debt instruments by a special purpose distinct entity (SPDE). The listing of securitized debt instruments would help improve the secondary market liquidity for such instruments. With a view to enhancing the information available in the public domain on the performance of asset pools on which securitized debt instruments are issued, it has been decided to put in place a Listing Agreement for securitized debt instruments. The Listing Agreement provides for the disclosure of pool-level, tranche-level, and select loan-level information. For the listed securitized debt instruments, it is clarified that the SPDEs that make frequent issues of securitized debt instruments are permitted to file umbrella offer documents along the lines of a 'shelf prospectus.' In order to ensure a uniform market convention for the secondary market trades of securitized debt instruments, Actual/Actual day count convention shall be mandatory for all listed securitized debt instruments.

VIII. FII Investment in corporate bonds infra long-term category I (Circular date: November 26, 2010)

Vide the SEBI circular CIR/IMD/FIIC/18/2010 dated November 26, 2010, SEBI announced the mechanism of the allocation of the newly announced limit of long-term corporate debt (infrastructure).

a) Increase in overall limits

The existing limit of US $ 5 billion for investment by foreign institutional investors (FIIs) in corporate bonds issued by companies in the infrastructure sector with a residual maturity of over five years was increased by an additional limit of US $ 20 billion, taking the total limit to US $ 25 billion. With this, the total limit available to the FIIs for investment in corporate bonds would be US $ 40 billion. These investments are now allowed in unlisted instruments.

b) Investments in unlisted bonds

The FIIs shall now be eligible to invest in unlisted bonds issued by companies in the infrastructure sector that are generally organized in the form of special purpose vehicles.

c) Lock-in period for investments subject to inter-FII trading

Investments in such bonds shall have a minimum lock-in period of three years. However, during the lock-in period, the FIIs will be allowed to trade among themselves. However, during the lock-in period, the investments cannot be sold to domestic investors.

d) No change in identification of companies eligible as "infrastructure"

The identification of corporate bonds issued by companies in the infrastructure sector shall be in terms of the SEBI Circular IMD/FII&C/18/2010 dated November 26, 2010.

e) Manner of allocation

In partial amendment to the SEBI Circular IMD/FII&C/18/2010 dated November 26, 2010, it was decided to do away with the allocation methodology for investment in the corporate debt long-term infra category. The FIIs/ sub-accounts can now avail of these limits without obtaining SEBI's approval until the overall FII investments reaches 90 percent i.e., US $ 22.5 billion, after which the process mentioned in the Circular dated November 26, 2010 shall be initiated for the allocation of remaining limits.

f) Special window at exchanges

For the benefit of the FIIs during the lock-in period (mentioned in Para c above), a special trading window for the FIIs shall be provided by the exchanges on the same lines as is available for equities in companies where the overall FII investment has touched the maximum limit.

IX. Infrastructure Finance Companies (IFCs) as eligible issuers for FIIs investment limit in debt instrument for infrastructure

The SEBI has decided that the Non-Banking Financial Companies (NBFCs) categorized as Infrastructure Finance Companies (IFCs) by the RBI shall also now be considered eligible issuers for the purposes of FII investment under the corporate debt long-term infra category.[2]

Market Design of Government Securities

Government Security	A government security is a tradable instrument issued by the central government or the state governments. It acknowledges the government's debt obligation. Such securities are short-term (usually called treasury bills, with original maturities of less than one year) or long-term (usually called government bonds or dated securities with original maturity of one year or more).

[2] The developments related to the Review of Limits for Foreign Institutional Investors' (FIIs) investment in government securities and corporate debt are discussed in Chapter 7.

Types of Securities	**Treasury Bills:** Treasury bills (T-bills) are money market instruments, i.e., short-term debt instruments issued by the Government of India, and are issued in three tenors—91 days, 182 days, and 364 days. The T-bills are zero coupon securities and pay no interest. They are issued at a discount and are redeemed at face value on maturity. **Cash Management Bills:** Cash management bills (CMBs)[3] have the generic characteristics of T-bills but are issued for a maturity period less than 91 days. Like the T-bills, they are also issued at a discount, and are redeemed at face value on maturity. The tenure, notified amount, and date of issue of the CMBs depend on the temporary cash requirement of the government. The announcement of their auction is made by the RBI through a Press Release that would be issued one day prior to the date of auction. The settlement of the auction is on a T+1 basis. **Dated Government Securities:** Dated government securities are long-term securities that carry a fixed or floating coupon (interest rate), which is paid on the face value, payable at fixed time periods (usually half-yearly). The tenor of dated securities can be up to 30 years. **State Development Loans:** State governments also raise loans from the market. State Development Loans (SDLs) are dated securities issued through an auction similar to the auctions conducted for the dated securities issued by the central government. Interest is serviced at half-yearly intervals, and the principal is repaid on the maturity date. Like the dated securities issued by the central government, the SDLs issued by the state governments qualify for SLR. They are also eligible as collaterals for borrowing through market repo as well as borrowing by eligible entities from the RBI under the Liquidity Adjustment Facility (LAF).
Types of Dated Government Securities	**Fixed Rate Bonds:** These are bonds on which the coupon rate is fixed for the entire life of the bond. Most government bonds are issued as fixed rate bonds. **Floating Rate Bonds:** Floating rate bonds are securities that do not have a fixed coupon rate. The coupon is re-set at pre-announced intervals (say, every 6 months, or 1 year) by adding a spread over a base rate. In the case of most floating rate bonds issued by the Government of India so far, the base rate is the weighted average cut-off yield of the last three 364-day Treasury Bill auctions preceding the coupon re-set date, and the spread is decided through the auction. Floating rate bonds were first issued in India in September 1995. **Zero Coupon Bonds:** Zero coupon bonds are bonds with no coupon payments. Like T-Bills, they are issued at a discount to the face value. The Government of India issued such securities in the 90s; it has not issued zero coupon bonds after that. **Capital Indexed Bonds:** These are bonds, the principal of which is linked to an accepted index of inflation with a view to protecting the holder from inflation. Capital indexed bonds, with the principal hedged against inflation, were first issued in December 1997. These bonds matured in 2002. The government is currently working on a fresh issuance of Inflation Indexed Bonds wherein the payment of both the coupon as well as the principal on the bonds would be linked to an Inflation Index (Wholesale Price Index). In the proposed structure, the principal will be indexed and the coupon will be calculated on the indexed principal. In order to provide the holders protection against actual inflation, the final WPI will be used for indexation. **Bonds with Call/Put Options:** Bonds can also be issued with features of optionality, wherein the issuer can have the option to buy back (call option) or the investor can have the option to sell the bond (put option) to the issuer during the currency of the bond. The optionality on the bond could be exercised after the completion of five years from the date of issue on any coupon date falling thereafter. The government has the right to buy-back the bond

3 The Government of India, in consultation with the RBI, decided to issue a new short-term instrument known as Cash Management Bills (CMBs) to meet the temporary mismatches in the cash flow of the government. (Source: Press Release of RBI, dated August 10, 2009)

	(call option) at par value (equal to the face value), while the investor has the right to sell the bond (put option) to the government at par value at the time of any of the half-yearly coupon dates starting from July 18, 2007. **Special Securities:** In addition to T-Bills and dated securities issued by the Government of India under the market borrowing program, the government also issues special securities, from time to time, to entities such as oil marketing companies, fertilizer companies, the Food Corporation of India, and so on as compensation to these companies in lieu of cash subsidies. These securities are usually long-dated securities carrying a coupon with a spread of about 20–25 basis points over the yield of the dated securities of comparable maturity. These securities are, however, not eligible SLR securities, but are eligible as collateral for market repo transactions. The beneficiary oil marketing companies may divest these securities in the secondary market to banks, insurance companies, primary dealers, etc., for raising cash. **Separate Trading of Registered Interest and Principal of Securities (STRIPS):** Steps are being taken to introduce new types of instruments such as the STRIPS (Separate Trading of Registered Interest and Principal of Securities). Accordingly, guidelines for the stripping and the reconstitution of government securities have been issued. The STRIPS are instruments in which each cash flow of the fixed coupon security is converted into a separate tradable zero coupon bond and traded.[4] These cash flows are traded separately as independent securities in the secondary market. The STRIPS in government securities will ensure the availability of sovereign zero coupon bonds, which will facilitate the development of a market-determined zero coupon yield curve (ZCYC). The STRIPS will also provide institutional investors with an additional instrument for their asset-liability management. Further, as the STRIPS have zero reinvestment risk (being zero coupon bonds), they can be attractive to retail/non-institutional investors. The process of stripping/reconstituting government securities is carried out at the RBI, the Public Debt Office (PDO) in the PDO-NDS (Negotiated Dealing System) at the option of the holder at any time from the date of issuance of a government security till its maturity. All dated government securities, other than floating rate bonds, having coupon payment dates on January 2 and July 2 (irrespective of the year of maturity) are eligible for stripping/reconstitution. The eligible government securities are held in the Subsidiary General Ledger (SGL)/Constituent Subsidiary General Ledger (CSGL) accounts maintained at the PDO, RBI, Mumbai. Physical securities are not eligible for stripping/reconstitution. The minimum amount of securities that needs to be submitted for stripping/reconstitution will be ₹ 1 crore (face value) and multiples thereof.
Issuers of Securites	In India, the **central government** issues T-bills and bonds or dated securities, while the **state governments** issue only bonds or dated securities, which are called State Development Loans (SDLs). Government securities carry practically no risk of default, and, hence, are called risk-free gilt-edged instruments. The Government of India also issues savings instruments such as Savings Bonds, National Saving Certificates (NSCs) and special securities (oil bonds, Food Corporation of India bonds, fertilizer bonds, power bonds, and so on).
Issuance of Government Securities	Government securities are issued through auctions conducted by the RBI. The auctions are conducted on an electronic platform called the NDS–Auction platform. Commercial banks, scheduled urban co-operative banks, primary dealers, insurance companies, and provident funds, who maintain a funds account (current account) and securities account (SGL account) with the RBI are members of this electronic platform. All the members of the PDO-NDS can place their bids in the auction through this electronic platform. All non-NDS members, including non-scheduled urban co-operative banks, can participate in the primary auction through scheduled commercial banks or primary

4 For example, when ₹ 100 of the 8.24 percent GS2018 is stripped, each cash flow of coupon (₹ 4.12 each half year) will become a coupon STRIP, and the principal payment (₹ 100 at maturity) will become a principal STRIP.

	dealers. For this purpose, the urban co-operative banks need to open a securities account with a bank / primary dealer; such an account is called a Gilt Account. A Gilt Account is a dematerialized account maintained by a scheduled commercial bank or primary dealer for its constituent (e.g., a non-scheduled urban co-operative bank). The RBI, in consultation with the Government of India, issues an indicative half-yearly auction calendar, which contains information about the amount of borrowing, the tenor of security, and the likely period during which auctions will be held. A Notification and a Press Communique giving the exact details of the securities, including the name, amount, type of issue, and the procedure of auction are issued by the Government of India about a week prior to the actual date of auction. The RBI places the notification and a Press Release on its website (www.rbi.org.in), and also issues an advertisement in leading English and Hindi newspapers. Information about auctions is also available at select branches of public and private sector banks and the primary dealers.
Different types of auctions used for issue of securities	Prior to the introduction of auctions as the method of issuance, the interest rates were administratively fixed by the government. With the introduction of auctions, the rate of interest (coupon rate) gets fixed through a market-based price discovery process. **An auction may be either yield-based or price-based.** **Yield-Based Auction:** A yield-based auction is generally conducted when a new government security is issued. Investors bid in yield terms up to two decimal places (for example, 8.19 percent, 8.20 percent, and so on). The bids are arranged in ascending order, and the cut-off yield is arrived at the yield corresponding to the notified amount of the auction. The cut-off yield is taken as the coupon rate for the security. Successful bidders are those who have bid at or below the cut-off yield. Bids that are higher than the cut-off yield are rejected. **Price-Based Auction:** A price-based auction is conducted when the Government of India re-issues securities issued earlier. The bidders quote in terms of price per ₹ 100 of the face value of the security (e.g., ₹ 102.00, ₹ 101.00, ₹ 100.00, ₹ 99.00, etc. per ₹ 100). The bids are arranged in descending order, and the successful bidders are those who have bid at or above the cut-off price. Bids that are below the cut-off price are rejected. **Multiple Price-Based:** In a Uniform Price auction, all the successful bidders are required to pay for the allotted quantity of securities at the same rate, i.e., at the auction cut-off rate, irrespective of the rate quoted by them. On the other hand, in a Multiple Price auction, the successful bidders are required to pay for the allotted quantity of securities at the respective price/yield at which they have bid.
Holding of Government Securities	The Public Debt Office (PDO) of the Reserve Bank of India, Mumbai acts as the registry and central depository for the government securities. Government securities may be held by investors either as physical stock or in dematerialized form. **From May 20, 2002, it is mandatory for all the RBI regulated entities to hold and transact in government securities only in dematerialized (SGL) form.** Accordingly, the UCBs are required to hold all government securities in demat form. • **Physical form**: Government securities may be held in the form of stock certificates. A stock certificate is registered in the books of the PDO. The ownership of stock certificates cannot be transferred by way of endorsement and delivery. They are transferred by executing a transfer form as the ownership and transfer details are recorded in the books of the PDO. The transfer of a stock certificate is final and valid only when the same is registered in the books of the PDO. • **Demat form:** Holding government securities in the dematerialized or scripless form is the safest and the most convenient alternative, as it eliminates the problems relating to custody, such as the loss of securities. Besides, transfers and servicing are electronic and hassle free. The holders can maintain their securities in dematerialized form in one of two ways:

	i. SGL Account: The RBI offers a Subsidiary General Ledger (SGL) account facility to select entities, who can maintain their securities in SGL accounts maintained with the PDO of the RBI. **ii. Gilt Account**: As the eligibility to open and maintain an SGL account with the RBI is restricted, an investor has the option of opening a Gilt Account with a bank or a primary dealer that is eligible to open a Constituents' Subsidiary General Ledger Account (CSGL) with the RBI. Under this arrangement, the bank or the primary dealer, as a custodian of the Gilt Account holders, would maintain the holdings of its constituents in a CSGL account (which is also known as an SGL II account) with the RBI. The servicing of the securities held in the Gilt Accounts is done electronically, facilitating hassle free trading and maintenance of the securities. The receipt of maturity proceeds and periodic interest is also faster, as the proceeds are credited to the current account of the custodian bank/PD with the RBI, and the custodian (CSGL account holder) immediately passes on the credit to the Gilt Account Holders (GAH). Investors also have the option of holding government securities in a dematerialized account with a depository (NSDL, CDSL, etc.). This facilitates the trading of government securities on the stock exchanges.
Listing of G-secs on Stock Exchanges	All government securities and T-bills are deemed to be listed automatically as and when they are issued.
Trading in Government securities	There is an active secondary market in government securities. The securities can be bought/sold in the secondary market (i) over the counter (OTC), (ii) through the Negotiated Dealing System (NDS), or (iii) through the Negotiated Dealing System-Order Matching (NDS-OM). **(i) Over the Counter/Telephone Market** In this market, a participant who wants to buy or sell a government security may contact a bank/primary dealer/financial institution either directly or through a broker registered with SEBI, and negotiate for a certain amount of a particular security at a certain price. Such negotiations are usually done over the telephone, and a deal may be struck if both the parties agree on the amount and rate. In the case of a buyer, such as an urban co-operative bank wishing to buy a security, the bank's dealer (who is authorized by the bank to undertake transactions in government securities) may get in touch with other market participants over the telephone and obtain quotes. All trades undertaken in the OTC market are reported on the secondary market module of the Negotiated Dealing System (NDS). **(ii) Negotiated Dealing System** The Negotiated Dealing System (NDS) for electronic dealing and reporting of transactions in government securities was introduced in **February 2002**. It allows the members to electronically submit bids or applications for the primary issuance of government securities when auctions are conducted. The NDS also provides an interface to the Securities Settlement System (SSS) of the PDO of the RBI, Mumbai, thereby facilitating the settlement of transactions in government securities (both outright and repos) conducted in the secondary market. Membership to the NDS is restricted to members holding SGL and/or current accounts with the RBI, Mumbai. **(iii) Negotiated Dealing System-Order Matching** In **August 2005**, the RBI introduced an anonymous screen-based order matching module on the NDS, called the Negotiated Dealing System-Order Matching (NDS-OM). This is an order-driven electronic system where the participants can trade anonymously by placing their orders on the system or accepting the orders already placed by other participants. The NDS-OM is operated by the Clearing Corporation of India Ltd. (CCIL) on behalf of the RBI. Direct access to the NDS-OM

system is currently available only to select financial institutions such as commercial banks, primary dealers, insurance companies, and mutual funds. Other participants can access this system through their custodians, i.e., those with whom they maintain Gilt Accounts. The custodians place the orders on behalf of their customers, like the urban co-operative banks. The advantages of the NDS-OM are price transparency and better price discovery.

Gilt Account holders have been given indirect access to the NDS through custodian institutions. A member (who has direct access) can report on the NDS the transaction of a Gilt Account holder in government securities. Similarly, Gilt Account holders have also been given indirect access to the NDS-OM through the custodians. However, two Gilt Account holders of the same custodian are currently not permitted to undertake repo transactions between themselves.

Stock Exchanges

Facilities are also available for trading in government securities on the stock exchanges (NSE, BSE), which cater to the needs of retail investors. The NSE's Wholesale Debt Market (WDM) segment offers a fully automated screen-based trading platform through the National Exchange for Automated Trading (NEAT) system. The WDM segment, as the name suggests, permits only high value transactions in debt securities.

The trades on the WDM segment can be executed in the continuous or negotiated market. In the continuous market, orders entered by the trading members are matched by the trading system. For each order entering the trading system, the system scans for a probable match in the order books. On finding a match, a trade takes place. In case the order does not find a suitable counter order in the order books, it is added to the order books and is called a passive order. This could later match with any future order entering the order book and result into a trade. This future order, which results in the matching of an existing order, is called the active order. In the negotiated market, deals are negotiated outside the exchange between the two counterparties, and are reported on the trading system for approval.

Brokerage Rates

The NSE has specified the maximum rates of brokerage chargeable by trading members in relation to trades done in securities available on the WDM segment of the Exchange.

Government Of India Securities and T-Bills	
Order Value up to ₹ 10 million	25 ps. per ₹ 100
More than ₹ 10 million, up to 50 million	15 ps. per ₹ 100
More than ₹ 50 million, up to 100 million	10 ps. per ₹ 100
More than ₹ 100 million	05 ps. per ₹ 100
State Govt. Securities, Institutional Bonds & Supra Institutional Bonds	
Order Value up to ₹ 2.5 million	50 ps. per ₹ 100
More than ₹ 2.5 million, up to 5 million	30 ps. per ₹ 100
More than ₹ 5 million, up to 10 million	25 ps. per ₹ 100
More than ₹ 10 million, up to 50 million	15 ps. per ₹ 100
More than ₹ 50 million, up to 100 million	10 ps. per ₹ 100
More than ₹ 100 million	5 ps. per ₹ 100
PSU & Floating Rate Bonds	
Order Value up to ₹ 10 million	50 ps. per ₹ 100
More than ₹ 10 million, up to 50 million	25 ps. per ₹ 100
More than ₹ 50 million, up to 100 million	15 ps. per ₹ 100
More than ₹ 100 million	10 ps. per ₹ 100
Commercial Paper and Debentures	1 percent of the order value

The NSE waived the transaction charges for the WDM segment of the Exchange effective from April 2010.

Reporting of Government Securities	Transactions undertaken between market participants in the OTC/telephone market are expected to be reported on the NDS platform within 15 minutes after the deal is put through over the telephone. All OTC trades are required to be mandatorily reported on the secondary market module of the NDS for settlement. Reporting on the NDS is a four-stage process wherein the seller of the security has to initiate the reporting followed by confirmation by the buyer. This is followed by the issue of confirmation by the seller's back office on the system, and the reporting is complete with the last stage, where the buyer's back office confirms the deal.The system architecture incorporates the maker-checker model to preempt individual mistakes as well as misdemeanor. Reporting on behalf of the entities maintaining gilt accounts with custodians is done by the respective custodians in the same manner as they would do for their own trades, i.e., for proprietary trades. The securities leg of these trades settle in the CSGL account of the custodian. Once the reporting is complete, the NDS system accepts the trade. Information on all such successfully reported trades flow to the clearing house i.e., the CCIL. In the case of the NDS-OM, the participants place orders (price and quantity) on the system. Participants can modify/cancel their orders. The order could be a bid for purchase or an offer for the sale of securities. The system, in turn, will match the orders based on price and time priority; i.e., it matches the bids and the offers of the same prices with time priority. The NDS-OM system has a separate screen for the central government, state government, and the T-bill trading. In addition, there is a screen for odd lot trading for facilitating the trading by small participants in smaller lots of less than ₹ 5 crore (i.e., the standard market lot). The NDS-OM platform is an anonymous platform where the participants will not know the counterparty to the trade. Once an order is matched, the deal ticket gets generated automatically, and the trade details flow to the CCIL. Due to the anonymity offered by the system, the pricing is not influenced by the participants' size and standing.
Major players in the Government Securities market	The major players in the government securities market include **commercial banks** and **primary dealers**, in addition to institutional investors such as **insurance companies**. Primary dealers play an important role as market makers in the government securities market. Other participants include **co-operative banks, regional rural banks, mutual funds, and provident and pension funds**. **Foreign Institutional Investors (FIIs)** are allowed to participate in the government securities market within the quantitative limits prescribed from time to time. Corporates also buy/sell the government securities to manage their overall portfolio risk.
Settlement of Government Securities	**Primary Market** Once the allotment process in the primary auction is finalized, the successful participants are advised of the consideration amounts that they need to pay to the government on the settlement day. The settlement cycle for dated security auctions is T+1, whereas that for T-bill auctions is T+2. On the settlement date, the fund accounts of the participants are debited by their respective consideration amounts, and their securities accounts (SGL accounts) are credited with the amount of securities that they were allotted. **Secondary Market** The transactions relating to government securities are settled through the member's securities/current accounts maintained with the RBI, with the delivery of securities and the payment of funds done on a net basis. The Clearing Corporation of India Ltd. (CCIL) guarantees the settlement of trades on the settlement date by becoming a central counterparty to every trade through the process of novation, i.e., it becomes the seller to the buyer and the buyer to the seller. All outright secondary market transactions in government securities are settled on a T+1 basis. However, in the case of repo transactions in government securities, the market participants will have the choice of settling the first leg on either a T+0 basis or a T+1 basis, as per their requirement.

	'Shut period' means the period for which the securities cannot be delivered. During the period under shut, no settlements/delivery of the security that is under shut will be allowed. The main purpose of having a shut period is to facilitate the servicing of the securities, i.e., finalizing the payment of the coupon and the redemption proceeds, and to avoid any change in ownership of securities during this process. Currently, the shut period for the securities held in SGL accounts is one day. Delivery versus Payment (DvP) is the mode of settlement of securities, wherein the transfer of securities and funds happens simultaneously. This ensures that unless the funds are paid, the securities are not delivered, and vice versa. The DvP settlement eliminates settlement risk in transactions. There are three types of DvP settlements, namely, DvP I, DvP II, and DvP III, which are explained below. i. DvP I: The securities and funds legs of the transactions are settled on a gross basis, i.e., the settlements occur transaction by transaction without netting the payables and receivables of the participant. ii. DvP II: In this method, the securities are settled on a gross basis whereas the funds are settled on a net basis, i.e., the funds payable and receivable of all transactions of a party are netted to arrive at the final payable or receivable position, which is then settled. iii. DvP III: In this method, both the securities and the funds legs are settled on a net basis, and only the final net position of all the transactions undertaken by a participant is settled. The liquidity requirement in a gross mode is higher than that of a net mode since the payables and receivables are set off against each other in the net mode. ***Clearing Corporation of India Limited (CCIL)*** The CCIL is the clearing agency for government securities. It acts as a Central Counterparty (CCP) for all transactions in government securities by interposing itself between two counterparties. In effect, during settlement, the CCP becomes the seller to the buyer and the buyer to the seller of the actual transaction. All outright trades undertaken in the OTC market and on the NDS-OM platform are cleared through the CCIL. Once the CCIL receives the trade information, it works out the participant-wise net obligations on both the securities and the funds legs. The payable/receivable position of the constituents (gilt account holders) is reflected against their respective custodians. The CCIL forwards the settlement file containing the net position of the participants to the RBI, where the settlement takes place by the simultaneous transfer of funds and securities under the 'Delivery versus Payment' system. The CCIL also guarantees the settlement of all trades in government securities. This means that during the settlement process, if any participant fails to provide funds/securities, the CCIL will make the same available from its own means. For this purpose, the CCIL collects margins from all participants, and maintains a Settlement Guarantee Fund.

Market Design for Corporate Bond Market

Issuers of Corporate Bonds	Public sector units including public financial institutions and bonds issued by the private corporate sector.
General Conditions for Issuance of Corporate Bonds	No issuer can make any public issue of debt securities if (as on the date of filing of the draft offer document and the final offer document) the issuer, or the person in control of the issuer, or its promoter, has been restrained or prohibited or debarred by SEBI from accessing the securities market or dealing in securities, and such direction or order is in force. No issuer can make a public issue of debt securities unless the following conditions are satisfied (on the date of filing the draft offer document and the final offer document): (a) The issuer has to apply to one or more recognized stock exchanges for the listing of such securities. If the application is made to more than one recognized stock exchange,

	the issuer should choose one of them as the designated stock exchange (having nationwide trading terminals). However, for any subsequent public issue, the issuer may choose a different stock exchange as the designated stock exchange, subject to the requirements of the SEBI (Issue and Listing of Debt Securities) Regulations, 2008. (b) The issuer has to obtain in-principle approval for the listing of its debt securities on the recognized stock exchanges where the application for listing has been made. (c) Credit rating has to be obtained from at least one credit rating agency registered with SEBI, and has to be disclosed in the offer document.[5] (d) It has entered into an arrangement with a depository registered with SEBI for the dematerialization of the debt securities that are proposed to be issued to the public, in accordance with the Depositories Act, 1996 and other relevant regulations. (e) The issuer is required to appoint one or more merchant bankers registered with the Board, at least one of whom has to be a lead merchant banker. (f) The issuer is required to appoint one or more debenture trustees in accordance with the provisions of Section 117B of the Companies Act, 1956 (1 of 1956) and the Securities and Exchange Board of India (Debenture Trustees) Regulations, 1993. (g) The issuer is not allowed to issue debt securities for providing loans to or the acquisition of shares of any person who is part of the same group or who is under the same management.
Price Discovery through Book Building	The issuer may determine the price of the debt securities in consultation with the lead merchant banker, and the issue may be at a fixed price or the price may be determined through the book building process in accordance with the procedures specified by SEBI.
Minimum Subscription	The issuer can decide the amount of minimum subscriptions that it seeks to raise by the issue of debt securities, and disclose the same in the offer document. In the event of non-receipt of the minimum subscription amount, all the application money received in the public issue has to be refunded to the applicants.
Debenture Redemption Reserve	For the redemption of the debt securities issued by a company, the issuer has to create a debenture redemption reserve in accordance with the provisions of the Companies Act, 1956 and the circulars issued by the central government in this regard. Where the issuer has defaulted in the payment of interest on debt securities, or the redemption thereof, or in the creation of security as per the terms of the issue of debt securities, any distribution of dividend would require the approval of the debenture trustees.
Listing of Debt Securities	**Mandatory listing** An issuer wanting to make an offer of debt securities to the public has to apply for listing to one or more recognized stock exchanges according to the terms of the Companies Act, 1956 (1 of 1956).[6] The issuer has to comply with the conditions of listing of debt securities as specified in the Listing Agreement with the stock exchange where such debt securities are sought to be listed. **Conditions for listing of debt securities issued on private placement basis** An issuer may list its debt securities issued on a private placement basis on a recognized stock exchange subject to the following conditions: (a) The issuer has issued such debt securities in compliance with the provisions of the Companies Act, 1956, the rules prescribed in it, and other applicable laws;

[5] If credit rating has been obtained from more than one credit rating agency, the credit ratings (including the unaccepted ratings) must be disclosed in the offer document.

[6] Sub-section 1 of Section 73 of the Companies Act, 1956.

	(b) Credit rating has been obtained in respect of such debt securities from at least one credit rating agency registered with SEBI; (c) The debt securities proposed to be listed are in a dematerialized form; (d) The prescribed disclosures have been made. For continuous listing, various conditions have to be followed. The listing requirements for securities in the WDM segment of the NSE are presented in Table 5-2.
Trading of Debt securities	(1) The debt securities issued to the public or on a private placement basis that are listed in recognized stock exchanges are traded, cleared, and settled in recognized stock exchanges, subject to the conditions specified by the SEBI. (2) In the case of trades of debt securities that have been made over the counter, such trades are required to be reported on a recognized stock exchange having a nationwide trading terminal or another such platform as may be specified by the SEBI.
Clearing and Settlement	The corporate bonds are cleared and settled by the clearing corporations of stock exchanges, i.e., the ICCL and the NSCCL. All trades in corporate bonds available in demat form that are reported on any of the specified platforms (including the FIMMDA, the NSE-WDM, and the NSE Website) are eligible for settlement through the NSCCL. In order to facilitate the settlement of corporate bond trades through the NSCCL, both buy as well as sell participants are required to explicitly express their intention to settle the corporate bond trades through the NSCCL. The trades will be settled at the participant level on a DvP I basis, i.e., on a gross basis for securities and funds. The settlements shall be carried out through the bank/DP accounts specified by the participants. On the settlement date, during the pay-in, the participants are required to transfer the securities to the depository account specified by the NSCCL, and to transfer the funds to the bank account specified by the NSCCL within the stipulated cut-off time. On successful completion of pay-in of securities and funds, the securities/funds shall be transferred by the NSCCL to the depository/bank account of the counterparty.
Regulatory Framework	The SEBI (Issue and Listing of Debt Securities) Regulations, 2008 (private placement) for over one year The SEBI is responsible for the primary and the secondary debt market, while the RBI is responsible for the market for repo/reverse repo transactions in corporate debt. Issuance of Non-Convertible Debentures (Reserve Bank) Directions, 2010 (for issuance of NCDs of original or initial maturity up to one year) According to the Repo in Corporate Debt Securities (Reserve Bank) Directions 2010, dated January 8, 2010, issued by the RBI, the NBFCs registered with the RBI (other than government companies as defined in Section 617 of the Companies Act, 1956) are eligible for participation in repo transactions in corporate debt securities. The NBFCs participating in such repo transactions are advised to comply with the directions and accounting guidelines issued by the RBI.

Source: SEBI Issue and Listing of Debt Securities Regulations, 2008

Market Design for Securitized Debt instruments

Meaning of Securitized Debt	The Securities Contracts (Regulation) Act, 1956 was amended in 2007 to include under the definition of securities any certificate or instrument (by whatever name it is called) issued to an investor by any issuer who is a special purpose distinct entity possessing any debt or receivable, including mortgage debt assigned to such entity, and acknowledging the beneficial interest of the investor in such debt or receivable, including mortgage debt, as the case maybe.[7] Securitization involves the pooling of financial assets and the issuance of securities that are re-paid from the cash flows generated by these assets. Common assets for securitization include credit cards, mortgages, auto and consumer loans, student loans, corporate debt, export receivable, and offshore remittances.
Regulatory Framework	The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 The SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008 for listing on stock exchanges The Securitization Companies and Reconstruction Companies (Reserve Bank) Guidelines and Directions, 2003
Eligibility criteria for trustees[8]	According to the SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008, no person can make a public offer of securitized debt instruments or seek listing for such securitized debt instruments unless (a) it is constituted as a special purpose distinct entity; (b) all its trustees are registered with the SEBI under the SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008; and (c) it complies with all the applicable provisions of these regulations and the Act. The requirement of obtaining registration is not applicable for the following persons, who may act as trustees of special purpose distinct entities: (a) any person registered as a debenture trustee with SEBI; (b) any person registered as a securitization company or a reconstruction company with the RBI under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (54 of 2002); (c) the National Housing Bank established by the National Housing Bank Act, 1987 (53 of 1987); (d) the National Bank for Agriculture and Rural Development established by the National Bank for Agriculture and Rural Development Act, 1981 (61 of 1981). However, these persons and special purpose distinct entities of which they are trustees are required to comply with all the other provisions of the SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008. However, these Regulations are not applicable for the National Housing Bank and the National Bank for Agriculture and Rural Development, to the extent of inconsistency with the provisions of their respective Acts.

7 Prior to 2008, securitized debt was incapable of being listed on stock exchanges, as it was unclear whether it was a "security" as defined in the Securities Contracts (Regulation) Act, 1956 (SCRA). This was put to rest after the government amended the SCRA to included pass-through certificates (PTCs), as the securitization instruments are technically called. Allowing them to be listed on stock exchanges, thus, became the next policy target for regulatory officials.

8 For the trustees of a special purpose distinct entity.

Launching of schemes	(1) A special purpose distinct entity may raise funds by making an offer of securitized debt instruments by formulating schemes in accordance with the SEBI (Public Offer and Listing of Securitized Debt Instruments) Regulations, 2008. (2) Where there are multiple schemes, the special purpose distinct entity is required to maintain separate and distinct accounts for each such scheme, and should not combine the asset pools or the realizations of a scheme with those of other schemes. (3) A special purpose distinct entity and the trustees should ensure that the realizations of debts and receivables are held and correctly applied towards the redemption of securitized debt instruments issued under the respective schemes, or towards the payment of the returns on such instruments, or towards other permissible expenditures of the scheme. (4) The terms of issue of the securitized debt instruments may provide for the exercise of a clean-up call option by the special purpose distinct entity, subject to adequate disclosures. (5) No expenses should be charged to the scheme in excess of the allowable expenses as may be specified in the scheme, and any such expenditure, if incurred, should be borne by the trustees.
Mandatory Listing	A special purpose distinct entity desirous of making an offer of securitized debt instruments to the public shall make an application for listing to one or more recognized stock exchanges in terms of Sub-section (2) of Section 17A of the Securities Contracts (Regulation) Act, 1956 (42 of 1956).
Minimum public offering for listing	For the public offers of securitized debt instruments, the special purpose distinct entity or trustee should satisfy the recognized stock exchange(s) (to which a listing application is made) that each scheme of securitized debt instruments was offered to the public for subscription through advertisements in newspapers for a period of not less than two days, and that the applications received in pursuance of the offer were allotted in accordance with these regulations and the disclosures made in the offer document. In the case of a private placement of securitized debt instruments, the special purpose distinct entity should ensure that it has obtained credit rating from a registered credit rating agency for its securitized debt instruments. In the case of a private placement of securitized debt instruments, the special purpose distinct entity should file the listing particulars with the recognized stock exchange(s), along with the application containing such information as may be necessary for any investor in the secondary market to make an informed investment decision related to its securitized debt instruments. All the credit ratings obtained, including the unaccepted ratings, if any, should be disclosed in the listing particulars filed with the recognized stock exchange(s).
Continuous listing conditions	The special purpose distinct entity or its trustee should provide information, including financial information relating to the schemes, to the stock exchanges and investors, and comply with such other continuing obligations as may be stipulated in the listing agreement.
Trading of securitized debt instruments	The securitized debt instruments issued to the public or on a private placement basis that are listed in recognized stock exchanges shall be traded, and such trades shall be cleared and settled in the recognized stock exchanges, subject to the conditions specified by the SEBI.

Note: The market design for Securitized Debt instruments was compiled primarily from the SEBI (Public Offer and Listing of SDI) Regulations, 2008.

Table 5-2: Eligibility Criteria for Securities in 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 ₹10 crores; or
• Market capitalisation of ₹25 crores
(In case of unlisted companies Networth more than ₹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><th>Public Issue</th><th>Private Placement</th></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 ₹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 ₹50 crores or above
• Credit rating</td></tr>
</table>

Source: NSE

Market Outcome

Primary Market

In 2010–2011, the central government and the state governments borrowed ₹ 4,794,820 million (US $ 107,387 million) and ₹ 1,040,390 million (US $ 23,301 million), respectively. The gross borrowings of the central and the state governments taken together were budgeted 6.43 percent lower, from ₹ 6,236,190 million (US $ 138,152 million) in 2009–2010 to ₹ 5,835,210 million (US $ 130,688 million) in 2010–2011 (Table 5-3). Their net borrowings also decreased by 18.55 percent, from ₹ 5,092,410 million (US $ 112,814 million) in 2009–2010 to ₹ 4,147,960 million (US $ 92,899 million) in 2010–2011.

Table 5-3: Market Borrowings of Central and State Governments

Security	Gross Borrowings		Net Borrowings		Gross	Net
	2009-10	2010-11	2009-10	2010-11	2010-11 (US $ mn)	
Central Government	4,924,970	4,794,820	3,943,580	3,263,980	107,387	73,101
State Government	1,311,220	1,040,390	1,148,830	883,980	23,301	19,798
Total	**6,236,190**	**5,835,210**	**5,092,410**	**4,147,960**	**130,688**	**92,899**

Source: RBI
Note: Gross and net borrowings include MSS de-sequestering.

The gross and net amounts raised through dated securities in 2010–2011 were lower by around 3 percent and 18 percent, respectively, compared to the amounts raised in the previous year.[9] A major challenge for the RBI in 2010–2011 was the management of the government market borrowing program in a situation of tight liquidity conditions and a rise in inflationary expectations. Nonetheless, one-off revenue items such as the 3G and BWA auctions led to an accumulation of large government balances, which in turn, contributed to lower market borrowings during the year. The net market borrowing of the central government amounted to ₹ 3,263,980 million (US $ 73,101 million) in 2010–2011, compared to the net borrowings of ₹ 3,943,580 million (US $ 87,363 million) in 2009–2010.

In 2010–2011, in order to contain inflationary pressures, the RBI increased the key policy rates, which had an impact on the cost of the government's market borrowings. The issuance calendar for dated securities for the first half of 2011–2012 (April–September) released in consultation with the central government was scheduled to raise ₹ 2,500,000 million.[10]

The state governments collectively raised ₹ 1,040,390 million (US $ 23,301 million) in 2010–2011 as against ₹ 1,311,220 million (US $ 29,048 million) in the preceding year. The net borrowings of the state governments in 2010–2011 were lower by 23.05 percent, and amounted to ₹ 883,980 million (US $ 19,798 million) (Table 5-3).

Secondary Market

Turnover

The aggregate secondary market transactions in debt securities (including government and non-government securities) decreased by 15.74 percent to ₹ 72,274,164 million (US $ 1,618,682 million) in 2010–2011 from ₹ 85,780,050 million (US $ 1,900,311 million) in 2009–2010. Non-government securities accounted for a meager 2.20 percent of the total turnover in the debt market. The NSE accounted for about 7.78 percent of the total turnover in debt securities (in both G-sec and non-G-sec securities) in 2010–2011 (Table 5-4).

Table 5-4: Turnover of Debt Securities

Securities	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	(₹ mn)			(US $ mn)		
Government Securities*	**62,254,360**	**84,337,567**	**70,682,541**	**1,221,872**	**1,868,355**	**1,583,036**
WDM Segment of NSE	2,911,124	4,207,985	4,035,492	82,590	93,221	90,381
Rest of SGL	59,343,816	80,129,581	66,647,050	1,572,710	1,775,135	1,492,655
Non Government Securities	**459,110**	**1,442,484**	**1,591,623**	**9,011**	**31,956**	**35,647**
CM Segment of NSE	1,005	5,219	29,544	102	116	662
WDM Segment of NSE	448,391	1,430,174	1,558,976	28,070	31,683	34,915
'F' Category of BSE	9,714	7,091	3,103	139	157	69
Total	**62,713,470**	**85,780,050**	**72,274,164**	**1,683,612**	**1,900,311**	**1,618,682**

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

The non-government securities are traded on the WDM and the CM segments of the NSE, and on the BSE (F Category). Except for the WDM, the volumes were quite insignificant on the other segments of the non-government securities. The turnover in the non-government securities on the WDM segment of the NSE was ₹ 1,558,976 million (US $ 34,915 million) in 2010–2011, which was higher by 9.01 percent than that during the preceding year. The BSE reported a turnover of ₹ 3,103 million (US $ 69 million) in 2010–2011. The NSE accounted for 99.81 percent of the total turnover in non-government securities during the year (Table 5-4).

9 Source: RBI Annual Report 2010-2011, Chapter VII on Public Debt Management.
10 Source: RBI Annual Report. (The figure mentioned in the Annual Report is ₹ 2,87,000 crore.)

The aggregate turnover in central and state government dated securities and T-bills through non-repo SGL transactions touched ₹ 7,083,067 million (US $ 158,635 million) in 2010–2011, recording a decrease of 20.60 percent from ₹ 9,018,385 million (US $ 199,787 million) in the previous year. The monthly turnover in non-repo transactions for the year 2010–2011 ranged between ₹ 358,203 million (US $ 8,022) and ₹ 1,036,410 million (US $ 23,011 million) (Table 5-5).

Table 5-5: Secondary Market Transactions in Government Securities

Month/ Year	SGL Non-Repo Transactions				Share in Non-Repo Turnover (%)	
	GOI Securities	Treasury Bills	Total	Total	GOI Securities	T-Bills
	(₹ mn.)			(US $ mn.)		
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**
2007-08	**3,541,760**	**1,461,287**	**5,003,047**	**125,170**	**70.79**	**29.21**
2008-09	**5,427,749**	**1,217,740**	**6,645,488**	**130,432**	**81.68**	**18.32**
2009-10	**6,304,237**	**2,714,149**	**9,018,385**	**199,787**	**69.90**	**30.10**
Apr-10	587,425	344,905	932,330	20,700	63.01	36.99
May-10	801,142	235,268	1,036,410	23,011	77.30	22.70
Jun-10	540,314	129,872	670,186	14,880	80.62	19.38
Jul-10	424,017	156,183	580,200	12,882	73.08	26.92
Aug-10	450,257	145,196	595,454	13,221	75.62	24.38
Sep-10	427,668	117,515	545,184	12,104	78.44	21.56
Oct-10	424,794	132,060	556,854	12,472	76.28	23.72
Nov-10	263,746	121,812	385,558	8,635	68.41	31.59
Dec-10	286,456	100,763	387,219	8,672	73.98	26.02
Jan-11	352,707	165,852	518,558	11,614	68.02	31.98
Feb-11	235,705	122,498	358,203	8,022	65.80	34.20
Mar-11	342,885	174,026	516,911	11,577	66.33	33.67
2010-11	**5,137,117**	**1,945,950**	**7,083,067**	**158,635**	**72.53**	**27.47**
Apr-11	244,240	188,116	432,356	8,837	56.49	43.51
May-11	305,108	167,750	472,858	9,665	64.52	35.48
Jun-11	358,075	243,236	601,311	12,290	59.55	40.45
Jul-11	433,247	237,809	671,056	13,716	64.56	35.44
Aug-11	531,751	125,783	657,534	13,440	80.87	19.13
Sep-11	494,474	181,234	675,709	13,811	73.18	26.82
Apr-Sep 2011	**2,366,895**	**1,143,928**	**3,510,823**	**78,630**	**67.42**	**32.58**

Source : NSE
Note: Excludes NDS-OM turnover

The share of the WDM segment of the NSE in the total turnover of non-repo SGL transactions increased substantially in 2010–2011. It accounted for a 56.97 percent share in 2010–2011 as against 46.76 percent in the preceding year (Table 5-6). The share of the WDM in the turnover of non-repo dated securities (central and state government securities) also witnessed an increase from 52.11 percent in 2009–2010 to 59.34 percent in 2010–2011. The share of the WDM in the turnover of non-repo T-bills increased to 50.73 percent in 2010–2011 as compared to 34.34 percent in the preceding year.

Table 5-6: 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 (₹mn)	On WDM (₹mn)	Share of WDM (%)	On SGL (₹mn)	On WDM (₹mn)	Share of WDM (%)	On SGL (₹mn)	On WDM (₹mn)	Share of WDM (%)
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**
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**
2008-09	**6,645,488**	**2,911,124**	**43.81**	**5,427,749**	**2,342,884**	**43.16**	**1,217,740**	**568,241**	**46.66**
2009-10	**9,018,385**	**4,217,022**	**46.76**	**6,304,237**	**3,285,111**	**52.11**	**2,714,149**	**931,911**	**34.34**
Apr-10	932,330	421,687	45.23	587,425	305,313	51.97	344,905	116,373	33.74
May-10	1,036,410	508,708	49.08	801,142	412,567	51.50	235,268	96,140	40.86
Jun-10	670,186	368,482	54.98	540,314	297,271	55.02	129,872	71,211	54.83
Jul-10	580,200	350,272	60.37	424,017	254,405	60.00	156,183	95,866	61.38
Aug-10	595,454	326,224	54.79	450,257	252,271	56.03	145,196	73,954	50.93
Sep-10	545,184	322,223	59.10	427,668	266,284	62.26	117,515	55,940	47.60
Oct-10	556,854	344,171	61.81	424,794	274,754	64.68	132,060	69,417	52.56
Nov-10	385,558	226,592	58.77	263,746	150,810	57.18	121,812	75,782	62.21
Dec-10	387,219	255,114	65.88	286,456	192,854	67.32	100,763	62,260	61.79
Jan-11	518,558	354,392	68.34	352,707	252,093	71.47	165,852	102,299	61.68
Feb-11	358,203	242,006	67.56	235,705	156,714	66.49	122,498	85,292	69.63
Mar-11	516,911	315,621	61.06	342,885	233,024	67.96	174,026	82,597	47.46
2010-11	**7,083,067**	**4,035,492**	**56.97**	**5,137,117**	**3,048,360**	**59.34**	**1,945,950**	**987,131**	**50.73**
Apr-11	432,356	278,657	64.45	244,240	182,509	74.73	188,116	96,148	51.11
May-11	472,858	281,458	59.52	305,108	166,205	54.47	167,750	115,253	68.71
Jun-11	601,311	348,635	57.98	358,075	235,827	65.86	243,236	112,809	46.38
Jul-11	671,056	311,206	46.38	433,247	185,219	42.75	237,809	125,987	52.98
Aug-11	657,534	411,680	62.61	531,751	361,761	68.03	125,783	49,920	39.69
Sep-11	675,709	397,717	58.86	494,474	316,276	63.96	181,234	81,441	44.94
Apr-Sep 2011	**3,510,823**	**2,029,354**	**57.80**	**2,366,895**	**1,447,797**	**61.17**	**1,143,928**	**581,557**	**50.84**

Source: NSE
Note: SGL Non-Repo Turnover excludes NDS-OM turnover

Settlement of Trades in Government Securities

In 2010–2011, 359,949 trades in government securities amounting to ₹ 69,702,360 million (USD 1,561,083 million) were settled by the CCIL. Of the total trades, 92.39 percent of the trades were outright transactions, and the rest were repo.

Table 5-7: Settlement of Trades in Government Securities

Month	Outright Transactions		Repo Transactions		Total		
	No. of Trades	Amount (Face Value in ₹ mn)	No. of Trades	Amount (Face Value in ₹ mn)	No. of Trades	Amount (Face Value in ₹ 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	325,132
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	573,697
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
2008-09	245,964	21,602,334	24,280	40,942,858	270,244	62,545,192	1,227,580
2009-10	316,956	29,138,900	28,651	60,728,290	345,607	89,867,190	1,990,855
2010-11	**332,540**	**28,709,520**	**27,409**	**40,992,840**	**359,949**	**69,702,360**	**1,561,083**
Apr-Sep 2011	**175,406**	**14,874,106**	**15,177**	**21,014,541**	**190,583**	**35,888,646**	**733,540**

Source: CCIL

Developments in WDM Segment of NSE

In 2010–2011, the turnover in the WDM segment of the NSE (of G-secs, T-bills, PSU bonds, and others) registered a drop of 0.77 percent to ₹ 5,594,468 million (US $ 125,296 million) from ₹ 5,638,159 million (US $ 124,904 million) in 2009–2010. The average daily turnover also decreased from ₹ 23,591 million (US $ 522.61 million) to ₹ 22,558 million (US $ 505.23 million) in the same period (Annexure 5-1).

Chart 5-1: Business Growth of WDM Segment

Source: NSE

The summary statement of the business growth of the WDM segment is presented in Annexure 5-1 and Chart 5-1. The highest turnover of ₹ 732,511 million (US $ 16,264 million) was witnessed in May 2010 during the fiscal year

2010–2011. The average daily turnover ranged between ₹ 15,437 million (US $ 345.74 million) and ₹ 36,626 million (US $ 813.00 million).

Securities Profile

The turnover in government securities decreased by 7.02 percent in 2010–2011 compared to the previous year, and accounted for a turnover of ₹ 3,048,360 million (US $ 68,272 million). Its share in the total turnover was 54.49 percent in 2010–2011 (Table 5-8). The share of T-Bills in the WDM turnover accounted for a 17.64 percent share in 2010–2011 (Chart 5-2).

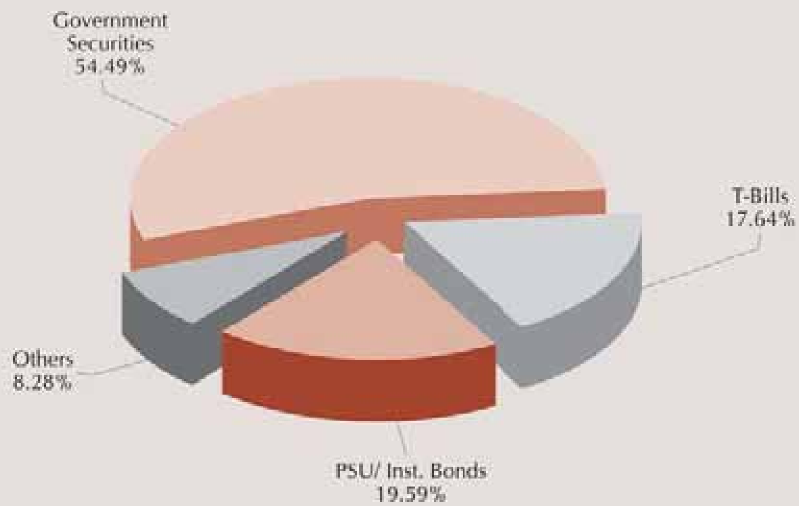
Table 5-8: Security-wise Distribution of WDM Turnover

Month/Year	Turnover (in ₹ mn)					Turnover (in 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**
2007-08	**1,943,470**	**660,622**	**92,318**	**126,760**	**2,823,170**	**68.84**	**23.40**	**3.27**	**4.49**
2008-09	**2,342,884**	**568,239**	**300,080**	**148,313**	**3,359,515**	**69.74**	**16.91**	**8.93**	**4.41**
2009-10	**3,278,374**	**929,611**	**868,329**	**561,845**	**5,638,159**	**58.15**	**16.49**	**15.40**	**9.97**
Apr-10	305,313	116,373	135,159	61,396	618,241	49.38	18.82	21.86	9.93
May-10	412,567	96,140	163,827	59,977	732,511	56.32	13.12	22.37	8.19
Jun-10	297,271	71,211	90,807	42,138	501,427	59.29	14.20	18.11	8.40
Jul-10	254,405	95,866	98,174	22,900	471,346	53.97	20.34	20.83	4.86
Aug-10	252,271	73,954	83,630	41,230	451,085	55.93	16.39	18.54	9.14
Sep-10	266,284	55,940	93,680	35,960	451,864	58.93	12.38	20.73	7.96
Oct-10	274,754	69,417	73,144	41,815	459,129	59.84	15.12	15.93	9.11
Nov-10	150,810	75,782	73,298	24,555	324,445	46.48	23.36	22.59	7.57
Dec-10	192,854	62,260	60,904	23,603	339,621	56.79	18.33	17.93	6.95
Jan-11	252,093	102,299	64,580	33,227	452,198	72.24	29.31	18.51	9.52
Feb-11	156,714	85,292	79,614	27,350	348,970	44.91	24.44	22.81	7.84
Mar-11	233,024	82,597	79,040	48,971	443,633	52.53	18.62	17.82	11.04
2010-11	**3,048,360**	**987,131**	**1,095,855**	**463,121**	**5,594,468**	**54.49**	**17.64**	**19.59**	**8.28**
Apr-11	182,509	96,148	78,084	40,777	397,518	45.91	24.19	19.64	10.26
May-11	166,205	115,253	53,509	28,537	363,504	45.72	31.71	14.72	7.85
Jun-11	235,827	112,809	105,312	54,284	508,231	46.40	22.20	20.72	10.68
Jul-11	185,219	125,987	100,311	58,213	469,731	39.43	26.82	21.36	12.39
Aug-11	361,761	49,920	100,163	36,415	548,258	65.98	9.11	18.27	6.64
Sep-11	316,276	81,441	80,985	24,443	503,145	62.86	16.19	16.10	4.86
Apr - Sep 2011	**1,447,797**	**581,557**	**518,365**	**242,669**	**2,790,387**	**51.89**	**20.84**	**18.58**	**8.70**

Source : NSE

The share of the top 10 securities increased to 38.63 percent in 2010–2011, compared to 35.14 percent in 2009–2010 (Table 5-10). The share of the top 100 securities decreased to 74.22 percent in 2010–2011, as against 77.89 percent in 2009–10. The top 50 securities accounted for 61.49 percent of the turnover in 2010–2011.

Chart 5-2: Security-wise Distribution of Turnover (2010–2011)

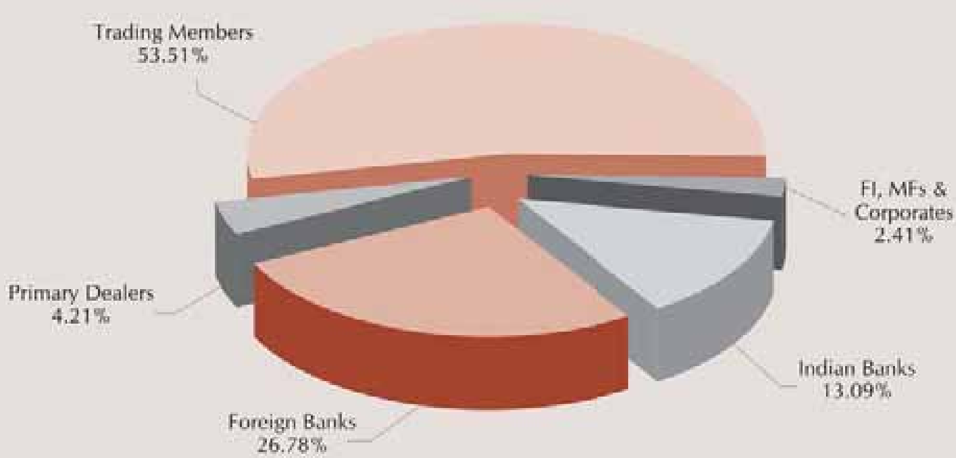


Source : NSE

Participant Profile

Indian banks, foreign banks, and PDs together accounted for over 44.08 percent of the WDM turnover in 2010–2011, and 47.95 percent of the WDM turnover during April–September 2011. The share of the Indian banks dipped to the decade's lowest (13.09 percent) in 2010–2011 from 19.84 percent in 2009–2010. The trading members' contribution was the highest at 53.51 percent in 2010–2011 (Table 5-9 and Chart 5-3)

Chart 5-3: Participant-wise Distribution of Turnover (2010–2011)



Source : NSE

Table 5-9: Participant-wise Distribution of WDM Turnover

(In percent)

Month/Year	Turnover (in ₹mn)						Turnover (in percent)				
	Trading Members	FIs/MFs/ Corporates	Primary Dealers	Indian Banks	Foreign Banks	Total Turnover	Trading Members	FIs/MFs/ Corporates	Primary Dealers	Indian Banks	Foreign Banks
2000-01	**996,023**	**179,147**	**948,879**	**1,437,462**	**724,303**	**4,285,815**	**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**	**9,471,912**	**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**	**10,687,014**	**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**	**13,160,962**	**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**	**8,872,936**	**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**	**4,755,235**	**32.01**	**3.92**	**21.89**	**28.07**	**14.11**
2006-07	**676,601**	**59,159**	**434,269**	**570,334**	**450,702**	**2,191,065**	**30.88**	**2.70**	**19.82**	**26.03**	**20.57**
2007-08	**1,077,039**	**66,062**	**243,922**	**671,350**	**764,797**	**2,823,170**	**38.15**	**2.34**	**8.64**	**23.78**	**27.09**
2008-09	**1,500,142**	**114,076**	**221,060**	**608,509**	**915,728**	**3,359,515**	**44.65**	**3.40**	**6.58**	**18.11**	**27.26**
2009-10	**2,775,924**	**147,645**	**260,962**	**1,118,852**	**1,334,776**	**5,638,159**	**49.23**	**2.62**	**4.63**	**19.84**	**23.67**
Apr-10	313,510	15,518	31,221	109,800	148,192	6,18,241	50.71	2.51	5.05	17.76	23.97
May-10	341,863	22,635	20,730	124,454	222,830	7,32,511	46.67	3.09	2.83	16.99	30.42
Jun-10	236,272	18,202	22,213	88,201	136,538	501,426	47.12	3.63	4.43	17.59	27.23
Jul-10	238,548	13,763	23,709	83,617	111,709	471,345	50.61	2.92	5.03	17.74	23.7
Aug-10	230,459	10,104	27,426	70,910	112,185	451,084	51.09	2.24	6.08	15.72	24.87
Sep-10	224,712	13,917	20,198	46,000	147,036	451,863	49.73	3.08	4.47	10.18	32.54
Oct-10	268,499	11,478	14,876	27,685	136,591	459,129	58.48	2.5	3.24	6.03	29.75
Nov-10	200,345	4,412	14,308	26,248	79,132	324,445	61.75	1.36	4.41	8.09	24.39
Dec-10	215,999	7,947	13,857	27,849	73,969	339,621	63.6	2.34	4.08	8.20	21.78
Jan-11	263,451	7,552	13,430	36,357	131,409	452,198	58.26	1.67	2.97	8.04	29.06
Feb-11	210,813	5,409	14,343	33,815	84,590	348,970	60.41	1.55	4.11	9.69	24.24
Mar-11	249,188	3,327	19,431	57,406	114,280	443,633	56.17	0.75	4.38	12.94	25.76
2010-2011	**2,993,600**	**134,827**	**235,527**	**732,316**	**1,498,198**	**5,594,468**	**53.51**	**2.41**	**4.21**	**13.09**	**26.78**
Apr-11	264,707	3,737	18,962	34,862	75,250	397,518	66.59	0.94	4.77	8.77	18.93
May-11	227,626	3,090	18,102	42,639	72,046	363,504	62.62	0.85	4.98	11.73	19.82
Jun-11	274,914	11,806	29,283	80,590	111,638	508,231	54.09	2.32	5.76	15.86	21.97
Jul-11	274,745	19,729	22,688	62,380	90,188	469,731	58.49	4.2	4.83	13.28	19.2
Aug-11	268,482	32,402	35,746	79,552	132,075	548,258	48.97	5.91	6.52	14.51	24.09
Sep-11	245,384	28,126	21,686	88,855	119,094	503,145	48.77	5.59	4.31	17.66	23.67
Apr-Sep 2011	**1,555,847**	**361,985**	**128,975**	**337,563**	**569,260**	**2,790,387**	**49.14**	**2.92**	**4.51**	**16.21**	**27.23**

Source : NSE

The top 50 trading members accounted for the total turnover of the WDM in 2010–2011, which is indicative of the narrow membership structure of the WDM segment (Table 5-10).

Table 5-10: Share of Top Securities/Trading Members/Participants in Turnover in WDM Segment

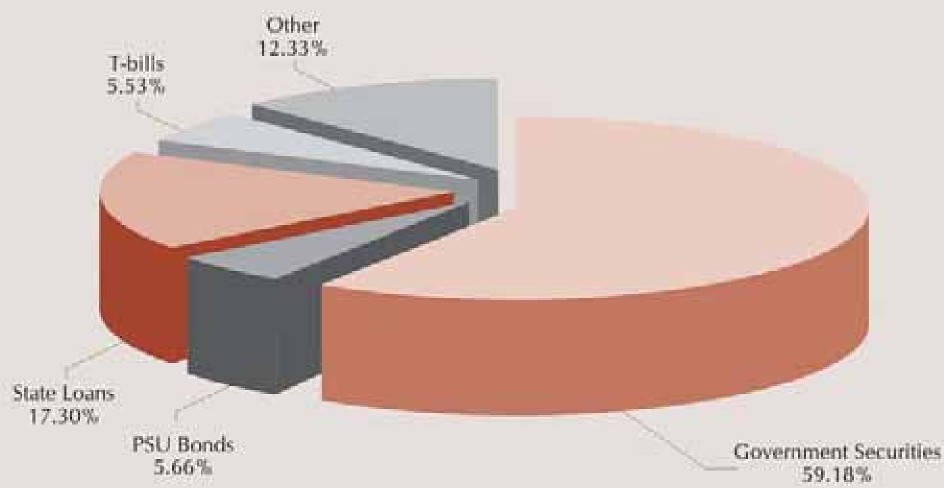
Year	In Percent				
	Top 5	Top 10	Top 25	Top 50	Top 100
Securities					
2000-01	42.20	58.30	80.73	89.97	95.13
2001-02	51.61	68.50	88.73	94.32	97.19
2002-03	43.10	65.15	86.91	92.74	96.13
2003-04	37.06	54.43	81.58	90.66	95.14
2004-05	43.70	57.51	71.72	80.59	89.55
2005-06	47.42	59.78	72.02	81.04	89.36
2006-07	40.90	51.29	65.82	77.15	86.91
2007-08	39.65	53.31	68.35	79.64	49.55
2008-09	31.31	43.05	60.42	72.45	83.87
2009-10	24.19	35.14	53.05	65.63	77.89
2010-11	26.65	38.63	51.69	61.49	74.22
Apr-Sep 2011	40.71	46.39	56.57	66.21	77.58
Trading Members					
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	
2008-09	69.92	82.89	98.38	100.00	-
2009-10	73.72	85.28	97.98	100.00	-
2010-11	73.58	86.08	98.72	100.00	-
Apr-Sep 2011	76.57	88.80	99.18	100.00	-
Participants					
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
2008-09	24.08	38.24	51.19	55.34	55.38
2009-10	23.4	36.87	47.64	50.77	50.77
2010-11	23.52	35.89	44.63	46.51	46.51
Apr-Sep 2011	21.43	33.64	43.42	44.20	44.20

Source: NSE

Market Capitalization

The market capitalization of the WDM segment witnessed a constant increase. The total market capitalization of the securities available for trading in the WDM segment stood at ₹ 35,948,772 million (US $ 805,124 million) at the end of March 2011, registering a growth of 13.55 percent over the figures at the end of March 2010. The market capitalization at the end of September 2011 was ₹ 38,955,992 million (US $ 796,234 million). The relative shares of the different securities in market capitalization maintained the trend seen in 2007–2011, with the government securities accounting for the highest share of 60.80 percent of the total market capitalization at the end of March 2011 (Chart 5-4). The growth of the market capitalization of the WDM segment is presented in Table 5-11.

Chart 5-4: Market Capitalization of WDM Securities (September 2011)



Source: NSE

Corporate Bonds

The movement in the corporate bond market is shown in Table 5-12. The data on corporate bonds at the NSE and the BSE includes the trades on the respective trading systems as well as the reports of the trades carried out in the OTC market. The volumes of the trades on the NSE increased by a meager 2.65 percent to ₹ 1,559,510 million (US $ 34,927 million) in 2010–2011 from ₹ 1,519,200 million (US $ 33,655 million) in the previous fiscal year. The BSE volumes in 2010–2011 were at ₹ 395,810 million (US $ 8,865 million), while the FIMMDA volumes more than doubled to reach ₹ 4,097,420 million (US $ 91,768 million).

Table 5-12: Secondary Market Corporate Bond Trades at the Exchanges and OTC

Month/ Year	BSE			NSE			FIMMDA		
	No. of trades	Amount (₹ mn)	Amount (US $ mn)	No. of trades	Amount (₹ mn)	Amount (US $ mn)	No. of trades	Amount (₹ mn)	Amount (US $ mn)
2007-08	27,697	411,870	10,304	3,787	314,530	7,869	4,089	234,790	5,874
2008-09	8,327	373,200	7,325	4,902	495,050	9,716	9,501	615,350	13,632
2009-10	7,408	533,230	11,813	12,522	1,519,200	33,655	18,300	1,959,550	43,507
2010-11	**4,465**	**395,810**	**8,865**	**8,006**	**1,559,510**	**34,927**	**31,589**	**4,097,420**	**91,768**
Apr-Sep 2011	**3,368**	**237,570**	**4,856**	**3,930**	**760,980**	**15,554**	**17,200**	**1,686,520**	**34,471**

Soure: SEBI
Note : The data on corporate bonds at NSE and BSE includes the trades on the respective trading systems as well as the reporting of trades carried out at OTC

Table 5-11: Market Capitalisation of WDM Securities

Month/Year (end of period)	Market Capitalisation (₹ mn.)							(percent)				
	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**
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**
Mar-09	**18,499,710**	**1,294,988**	**4,223,616**	**1,476,171**	**2,988,670**	**28,483,155**	**559,041**	**64.95**	**4.55**	**14.83**	**5.18**	**10.49**
Apr-09	19,595,344	1,319,930	4,236,884	1,615,908	3,115,258	29,883,325	624,260	65.57	4.42	14.18	5.41	10.42
May-09	19,837,401	1,351,386	4,313,708	1,465,311	3,116,263	30,084,069	628,453	65.94	4.49	14.34	4.87	10.36
Jun-09	20,341,627	1,365,868	4,369,455	1,453,911	3,228,187	30,759,049	642,554	66.13	4.44	14.21	4.73	10.50
Jul-09	20,652,545	1,387,183	4,466,104	1,398,162	3,273,766	31,177,760	651,301	66.24	4.45	14.32	4.48	10.50
Aug-09	18,980,031	1,445,716	4,577,307	1,374,919	3,326,613	29,704,586	620,526	63.90	4.87	15.41	4.63	11.20
Sep-09	19,326,811	1,456,239	4,723,922	1,375,805	3,361,393	30,244,170	631,798	63.90	4.81	15.62	4.55	11.11
Oct-09	19,613,493	1,513,638	4,863,634	1,336,147	3,400,416	30,727,328	641,891	63.83	4.93	15.83	4.35	11.07
Nov-09	19,700,020	1,535,770	4,976,521	1,325,380	3,454,442	30,992,133	647,423	63.56	4.96	16.06	4.28	11.15
Dec-09	19,793,385	1,559,270	5,097,215	1,343,883	3,503,716	31,297,468	653,801	63.24	4.98	16.29	4.29	11.19
Jan-10	19,661,397	1,618,559	5,169,337	1,332,243	3,600,238	31,381,775	655,562	62.65	5.16	16.47	4.25	11.47
Feb-10	19,568,620	1,635,904	5,300,915	1,331,862	3,696,304	31,533,605	658,734	62.06	5.19	16.81	4.22	11.72
Mar-10	**19,504,360**	**1,629,786**	**5,369,956**	**1,356,961**	**3,798,232**	**31,659,295**	**661,360**	**61.61**	**5.15**	**16.96**	**4.29**	**12.00**
Apr-10	19,958,288	1,673,024	5,410,185	1,344,788	3,843,681	32,229,965	715,585	61.92	5.19	16.79	4.17	11.93
May-10	20,114,039	1,724,171	5,491,132	1,545,866	3,976,134	32,851,342	729,381	61.23	5.25	16.72	4.71	12.10
Jun-10	20,195,496	1,783,329	5,547,306	1,296,652	4,025,357	32,848,140	729,310	61.48	5.43	16.89	3.95	12.25
Jul-10	20,044,516	1,829,049	5,598,098	1,148,503	4,147,174	32,767,340	727,516	61.17	5.58	17.08	3.51	12.66
Aug-10	20,594,607	1,826,240	5,658,171	1,204,850	4,218,033	33,501,901	743,826	61.47	5.45	16.89	3.60	12.59
Sep-10	20,928,033	1,825,566	5,724,760	1,166,958	4,254,509	33,899,827	752,660	61.73	5.39	16.89	3.44	12.55
Oct-10	21,267,294	1,821,108	5,829,486	1,261,659	4,330,489	34,510,035	772,901	61.63	5.28	16.89	3.66	12.55
Nov-10	21,590,330	1,873,644	5,900,579	1,154,424	4,343,516	34,862,493	780,795	61.93	5.37	16.93	3.31	12.46
Dec-10	21,869,887	1,901,777	5,958,653	1,237,717	4,379,575	35,347,609	791,660	61.87	5.38	16.86	3.50	12.39
Jan-11	21,802,241	1,918,783	6,023,310	1,245,729	4,445,861	35,435,924	793,638	61.53	5.41	17.00	3.52	12.55
Feb-11	21,830,773	1,909,838	6,139,739	1,250,266	4,506,638	35,637,254	798,147	61.26	5.36	17.23	3.51	12.65
Mar-11	**21,857,214**	**1,909,216**	**6,220,693**	**1,376,770**	**4,584,878**	**35,948,772**	**805,124**	**60.80**	**5.31**	**17.30**	**3.83**	**12.75**
Apr-11	22,144,241	1,940,645	6,284,530	1,595,950	4,615,010	36,580,375	747,678	60.54	5.31	17.18	4.36	12.62
May-11	22,245,077	1,949,396	6,318,948	1,885,760	4,666,215	37,065,396	757,592	60.02	5.26	17.05	5.09	12.59
Jun-11	22,508,683	2,010,243	6,409,589	2,095,882	4,695,985	37,720,382	770,979	59.67	5.33	16.99	5.56	12.45
Jul-11	22,398,626	2,067,550	6,514,947	2,327,573	4,738,877	38,047,572	777,667	58.87	5.43	17.12	6.12	12.46
Aug-11	22,976,390	2,139,912	6,635,609	2,363,682	4,774,167	38,889,760	794,880	59.08	5.50	17.06	6.08	12.28
Sep-11	**23,052,230**	**2,205,830**	**6,740,332**	**2,153,209**	**4,804,391**	**38,955,992**	**796,234**	**59.18**	**5.66**	**17.30**	**5.53**	**12.33**

Source: NSE

Settlement of Trades in Corporate Bonds

In 2010–2011, 32,662 trades in corporate bonds amounting to ₹ 4,501,232 million (US $ 100,304 million) were settled by the NSCCL and the ICCL (Table 5-13). During April –September 2011, 18,249 trades amounting to ₹ 1,868,180 million (US $ 38,184 million) were settled by the NSCCL and the ICCL.

Table 5-13: Settlement Statistics of Corporate Bonds

Month	NSE			BSE			Total		
	Total No. of Trades Settled	Settled Value ₹ mn	Settled Value US $ mn	Total No. of Trades Settled	Settled Value ₹ mn	Settled Value US $ mn	Total No. of Trades Settled	Settled Value ₹ mn	Settled Value US $ mn
Apr-10	3,020	437,266	9,708	150	18,678	415	3,170	455,944	10,123
May-10	3,606	479,307	10,642	145	17,814	396	3,751	497,120	11,037
Jun-10	2,983	378,912	8,413	166	22,579	501	3,149	401,491	8,914
Jul-10	3,300	471,810	10,475	139	21,466	477	3,439	493,276	10,952
Aug-10	2,581	371,671	8,252	117	12,193	271	2,698	383,865	8,523
Sep-10	2,545	381,542	8,471	77	5,823	129	2,622	387,365	8,600
Oct-10	2,528	378,091	8,468	129	7,509	168	2,657	385,600	8,636
Nov-10	2,118	284,582	6,374	103	5,495	123	2,221	290,077	6,497
Dec-10	1,868	266,588	5,971	158	20,385	457	2,026	286,973	6,427
Jan-11	1,814	268,636	6,016	133	4,543	102	1,947	273,179	6,118
Feb-11	1,731	236,484	5,296	126	18,203	408	1,857	254,687	5,704
Mar-11	2,854	371,428	8,319	271	20,227	453	3,125	391,655	8,772
2010-11	**30,948**	**4,326,317**	**96,894**	**1,714**	**174,915**	**3,917**	**32,662**	**4,501,232**	**100,304**
Apr-11	2,308	261,569	5,346	158	7,883	161	2,466	269,452	5,507
May-11	2,271	221,395	4,525	211	4,422	90	2,482	225,817	4,616
Jun-11	2,976	350,094	7,156	259	7,519	154	3,235	357,612	7,309
Jul-11	2,919	329,855	6,742	281	7,958	163	3,200	337,813	6,905
Aug-11	2,782	332,041	6,787	246	7,486	153	3,028	339,527	6,940
Sep-11	3,622	329,475	6,734	216	8,485	173	3,838	337,960	6,908
Apr - Sep 2011	**16,878**	**1,824,428**	**37,290**	**1,371**	**43,752**	**894**	**18,249**	**1,868,180**	**38,184**

Source: SEBI

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 5-14. The yields on government and corporate securities showed an upward trend towards the first half of 2010–2011.

Table 5-14: Yields on Government and Corporate Securities (April 2008–Sep 2011)

(In percent)

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-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
Jul-08	9.08	9.29	9.24	9.58	10.38	10.85	10.81	10.52
Aug-08	9.23	9.21	9.04	9.70	0.00	10.37	11.14	10.92
Sep-08	8.91	8.80	8.43	9.01	11.25	11.25	10.92	10.88
Oct-08	7.53	7.72	7.88	8.39	13.38	11.67	11.49	10.98
Nov-08	7.08	7.25	7.39	8.02	11.71	12.17	11.23	10.96
Dec-08	5.83	6.02	6.29	7.18	11.06	9.81	9.24	9.44
Jan-09	4.59	5.41	5.78	6.91	7.95	8.57	8.93	8.81
Feb-09	4.59	5.39	6.46	7.18	8.71	8.67	9.30	9.09
Mar-09	5.00	5.76	6.85	7.72	8.29	8.35	9.37	9.15
Apr-09	3.68	5.49	6.45	7.24	6.51	7.52	8.49	8.86
May-09	3.28	5.12	6.49	7.32	6.00	7.15	8.53	8.36
Jun-09	3.69	5.74	6.81	7.49	5.45	7.59	8.69	8.82
Jul-09	3.42	5.76	6.93	7.51	4.86	7.03	8.54	9.18
Aug-09	3.76	6.23	7.24	7.84	5.55	7.46	8.61	9.05
Sep-09	3.85	6.45	7.24	7.92	5.60	7.85	8.60	8.77
Oct-09	3.34	6.34	7.33	8.1	5.08	7.53	8.98	8.84
Nov-09	3.53	5.92	7.26	7.95	6.12	7.19	8.51	8.64
Dec-09	3.75	6.14	7.46	7.95	5.51	7.08	8.63	8.65
Jan-10	3.73	5.91	7.56	7.97	5.51	7.33	8.67	8.79
Feb-10	3.97	6.01	7.73	8.36	6.26	7.65	8.81	8.90
Mar-10	4.29	6.23	7.71	8.32	6.09	7.43	8.86	8.92
Apr-10	4.03	6.20	7.77	8.36	5.86	7.30	8.72	8.82
May-10	4.44	6.20	7.53	7.88	5.50	7.22	8.56	8.65
Jun-10	5.24	6.42	7.56	8.08	6.60	7.37	8.68	8.70
Jul-10	5.61	6.77	7.64	8.18	6.77	7.38	8.68	8.75
Aug-10	6.01	7.39	7.87	8.22	7.31	8.04	8.72	8.81
Sep-10	6.16	7.40	7.92	8.23	7.73	7.97	8.64	8.73
Oct-10	6.56	7.54	7.99	8.27	7.85	8.34	8.63	8.73
Nov-10	6.80	7.56	7.97	8.26	8.39	8.46	8.79	8.84
Dec-10	7.16	7.76	7.96	8.30	9.17	8.89	8.97	8.87
Jan-11	7.01	7.76	8.07	8.37	9.25	9.31	8.96	8.98
Feb-11	7.03	7.81	8.13	8.38	9.63	9.46	11.92	8.99
Mar-11	7.22	7.67	7.94	8.24	10.17	9.54	9.11	9.17
Apr-11	7.15	7.83	8.04	8.32	9.18	9.48	9.47	9.45
May-11	7.85	8.27	8.36	8.53	9.68	9.79	9.46	9.27
Jun-11	8.10	8.23	8.30	8.50	10.21	9.81	9.44	9.69
Jul-11	8.11	8.27	8.33	8.54	9.57	9.58	9.42	9.34
Aug-11	8.30	8.26	8.28	8.50	9.60	9.41	9.40	9.62
Sep-11	8.34	7.70	8.31	8.52	9.68	9.54	9.43	9.43

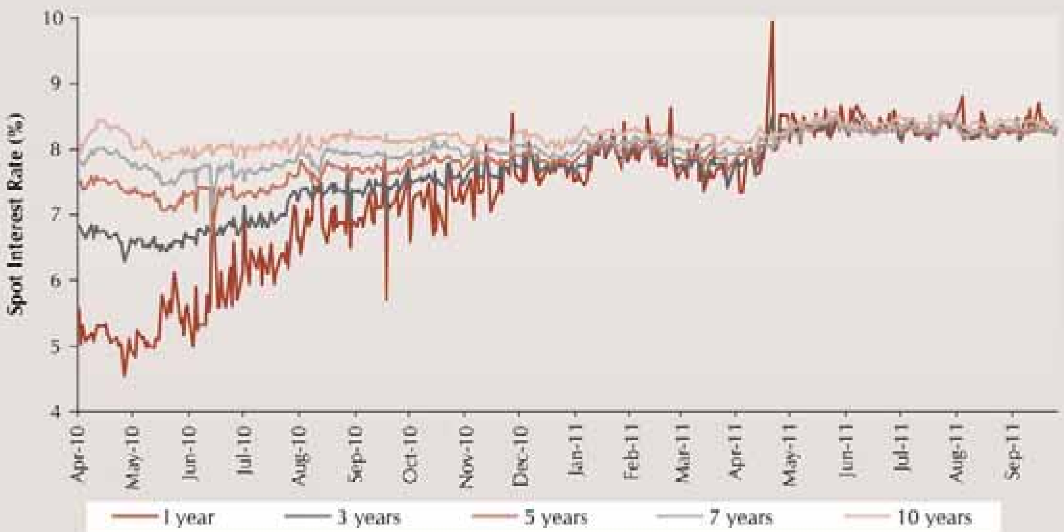
Source: NSE.

WDM Products and Services

Zero Coupon Yield Curve

Keeping in mind the requirements of the banking industry, financial institutions, mutual funds, and insurance companies that have substantial investments in sovereign papers, the NSE disseminates a Zero Coupon Yield Curve (ZCYC) (NSE Zero Curve) to help in the valuation of securities across all maturities, irrespective of its liquidity in the market. This product has been developed using the Nelson-Siegel model to estimate the term structure of the interest rate at any given point of time, and has been successfully tested using the daily WDM trades data. This is disseminated daily. The ZCYC depicts the relationship between the interest rates in the economy and the associated terms to maturity. The estimates of the daily ZCYC are available from February 1998. Chart 5-5 plots the spot interest rates at different maturities for the period April 2010 to September 2011.

Chart 5-5: Zero Coupon Yield Curve (April 2010–September 2011)



Source: NSE

FIMMDA-NSE MIBID/MIBOR[11]

The NSE has been computing and disseminating the NSE Mumbai Inter-bank Bid Rate (MIBID) and the 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, the 1-month and 3-month MIBID/MIBOR from December 1, 1998, and the 3-day MIBID/MIBOR from June 06, 2008, which are calculated and disseminated on the last working day of every week. In view of the robust methodology of the computation of these rates and their extensive use by the market participants, these have been co-branded with the Fixed Income and Money Market Dealers' Association (FIMMDA) from March 4, 2002. These are now known as the FIMMDA-NSE MIBID/MIBOR.

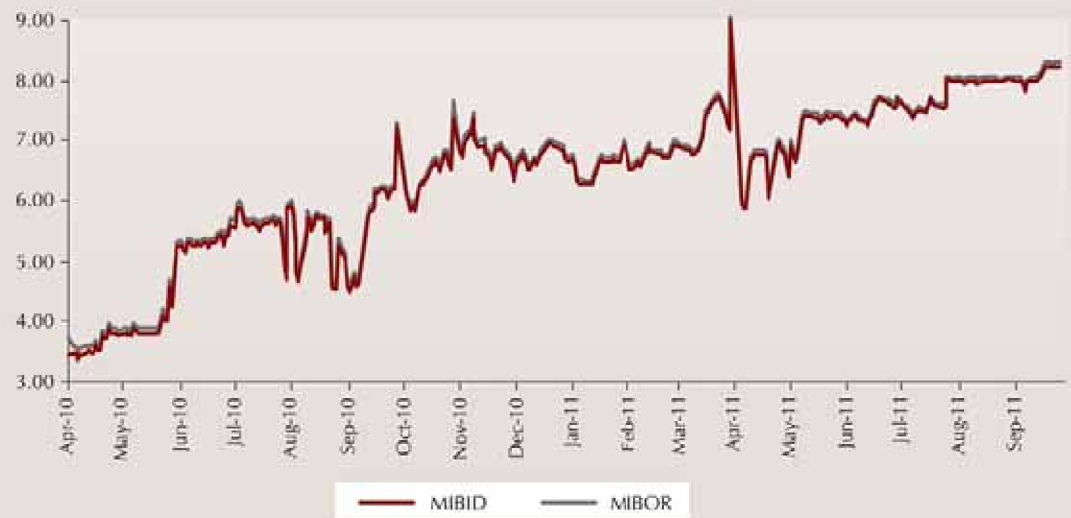
The FIMMDA-NSE MIBID/MIBOR are based on rates polled by the NSE from a representative panel of 32 banks/ institutions/primary dealers. Currently, the quotes are polled and processed daily by the Exchange at 09:40 (IST) for the

[11] A reference rate is an accurate measure of the market price. In a fixed income market, it is an interest rate that the market respects and closely matches.

overnight rate, at 11:30 (IST) for the 14-day, 1-month, and 3-month rates, and at 09:40 (IST) for the 3-day rate, 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 the 3-day rates are disseminated on the last working day of the week to the market at about 09:55 (IST), whereas the 14-day, 1-month, and 3-month rates are disseminated at about 11:45 (IST).

The FIMMDA-NSE MIBID/MIBOR rates for the month ends are presented in Annexure 5-2. The daily FIMMDA-NSE MIBID/MIBOR rates are available at www.nseindia.com. Chart 5-6 presents the overnight FIMMDA-NSE MIBID/MIBOR rates from April 2010 to September 2011. These rates touched a peak of 9.00 percent and 9.24 percent, respectively, on March 31, 2011 and a low of 3.37 and 3.49 percent, respectively, on April 8, 2010.

Chart 5-6: Overnight FIMMDA-NSE MIBID/MIBOR Rates (April 2010–September 2011)



Source: NSE

NSE-VaR System

The NSE has developed a VaR system for measuring the market risk inherent in the Government of India (GOI) securities. The NSE-VaR system builds on the NSE database of daily yield curves (ZCYC) and provides measures of VaR using five alternative methods (variance-covariance, historical simulation method, weighted normal method, weighted historical simulation method, and extreme value method). Together, these five methods provide a range of options for the market participants to choose from. The NSE-VaR system releases daily estimates of security-wise VaR at 1-day and multi-day horizons for the securities traded on the WDM segment of the NSE and all outstanding GoI securities with effect from January 1, 2002. Participants can compute their portfolio risk as the weighted average of security-wise VaRs, the weights being proportionate to the market value of a given security in their portfolio. The 1-day VaR (99 percent) measure for the GoI Securities traded on the NSE-WDM on September 30, 2011 is depicted in Table 5-15. The VaRs for the other GOI securities are available at www.nseindia.com.

Table 5-15: 1-day VaR (99 percent) for GoI Securities Traded on NSE-WDM (Sep 2011)

Security Type	Security Name	Issue Name	VaR (%)					Clean Price (off NSE-ZCYC)
			Normal	Weighted Normal	Historical Simulation	Weighted Historical Simulation	EVT	
GS	CG2016	7.59%	1.1470	0.5540	1.3510	0.5120	1.0950	96.7630
GS	CG2018	7.83%	1.2530	0.5070	1.3600	0.4430	1.1220	96.6970
GS	CG2021	7.80%	1.5560	0.5970	1.6380	0.5140	1.3730	95.0510
GS	CG2022	8.13%	1.7620	0.6470	1.8850	0.6810	1.5740	96.6900
GS	CG2027	8.28%	2.8060	1.3280	3.3410	1.2890	2.5610	96.4930
GS	CG2040	8.30%	5.4220	5.0170	7.5970	3.9390	5.3640	94.9070
TB	182D	20312	0.4460	0.2650	0.5720	0.2430	0.4930	96.5020
TB	364D	210912	0.7540	0.4810	0.9200	0.4230	0.8250	92.1420
TB	91D	141011	0.0590	0.0300	0.0780	0.0220	0.0630	99.6550
TB	91D	231211	0.2800	0.1580	0.3570	0.1440	0.3060	98.0620
TB	91D	291211	0.2960	0.1680	0.3790	0.1240	0.3230	97.9280

Source: NSE

Bond Index

A widely tracked benchmark for the performance of bonds is the ICICI Securities' (Isec) Bond Index (i-BEX), which measures the performance of the bond markets by tracking the returns on government securities. There are other indices also, such as the NSE's Government Securities (G-Sec) Index and the 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 a Total Return Index (TRI). The PRI tracks the price movements of bonds or capital gains/losses from the base date. It is the movement of prices quoted in the market, and could be seen as the mirror image of yield movements. In 2010–2011, the PRI of the i-BEX and the NSE G-Sec Index declined by 1.41 percent and 2.00 percent, respectively.[12]

The TRI, on other hand, tracks the total returns available in the bond market. It captures both interest accruals as well as capital gains/losses. In a declining interest rate scenario, the index gains due to interest accrual and capital gains, while losing on reinvestment income. 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. In 2010–2011, the TRI registered a rise of 6.34 percent and 3.93 percent for the i-BEX and the NSE G-Sec Index, respectively. While constructing the NSE G-Sec Index, prices from the NSE ZCYC are used so that the movements reflect the returns to an investor due to changes in the 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 5-16.

[12] March 2011 index figures were compared with March 2010 index figures.

Table 5-16: Debt Market Indices

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
Jul-08	4218.50	1167.81	245.13	245.13	248.93	100.96

Contd.

Contd.

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
Aug-08	4319.70	1187.82	246.86	246.86	255.48	103.34
Sep-08	4419.90	1207.19	248.75	248.75	258.78	104.24
Oct-08	4797.75	1304.81	251.79	251.79	280.59	112.71
Nov-08	4941.12	1336.11	253.03	253.03	288.74	115.41
Dec-08	5515.46	1485.83	253.79	253.79	319.99	127.75
Jan-09	5289.97	1415.41	257.56	257.56	306.33	121.54
Feb-09	5193.69	1381.12	258.36	258.36	304.14	120.26
Mar-09	5096.95	1345.71	259.88	259.88	305.55	120.42
Apr-09	5314.32	1395.98	260.57	260.57	305.83	120.04
May-09	5220.20	1362.53	261.14	261.14	299.23	117.15
Jun-09	5204.11	1349.98	261.74	261.74	297.20	115.92
Jul-09	5206.85	1342.61	263.64	263.64	298.75	115.87
Aug-09	5109.85	1308.74	264.95	264.95	295.04	114.03
Sep-09	5183.44	1319.61	266.11	266.11	301.26	115.81
Oct-09	5171.96	1308.35	267.1	267.1	300.52	114.78
Nov-09	5254.14	1321.49	266.77	266.77	298.64	113.56
Dec-09	5240.34	1309.69	269.23	269.23	296.79	112.13
Jan-10	5276.59	1310.48	269.77	269.77	300.98	113.48
Feb-10	5265.66	1299.92	271.31	271.31	297.66	111.68
Mar-10	5327.81	1306.83	272.03	272.03	297.28	110.97
Apr-10	5352.56	1304.81	272.09	272.09	300.72	111.54
May-10	5416.23	1312.71	272.78	272.78	302.97	111.84
Jun-10	5430.24	1307.88	272.69	272.69	301.73	110.74
Jul-10	5415.82	1296.04	274.4	274.4	301.35	109.93
Aug-10	5414.65	1287.48	275.45	275.45	298.88	108.94
Sep-10	5468.38	1292.18	276.62	276.62	301.26	109.29
Oct-10	5460.33	1282.00	277.87	277.87	298.07	107.65
Nov-10	5503.13	1283.83	279.09	279.09	299.33	107.48
Dec-10	5567.76	1290.81	281.27	281.27	303.92	108.48
Jan-11	5534.79	1274.56	282.83	282.83	300.79	107.16
Feb-11	5590.85	1279.92	284.16	284.16	302.82	107.36
Mar-11	5665.75	1288.35	286.67	286.67	308.96	108.75
Apr-11	5650.42	1276.22	287.25	287.25	303.59	106.63
May-11	5636.56	1264.62	289.5	289.5	303.84	106.09
Jun-11	5698.21	1270.31	291.81	291.81	306.71	106.48
Jul-11	5706.69	1263.78	293.3	293.3	305.38	105.68
Aug-11	5789.35	1273.94	295.5	295.5	306.26	105.83
Sep-11	5825.77	1273.54	295.67	295.67	310.86	107.05

Source: ICICI Securities; NSE

Annexure 5-1: Business Growth of WDM Segment

Month/ Year	All Trades							Retail Trades			
	No. of Active Securities	Number of Trades	Turnover (₹ mn.)	Average Daily Turnover (₹ mn.)	Average Trade Size (₹ mn.)	Turnover (US $ mn.)	Average Daily Turnover (US $ mn.)	Number of Trades	Turnover (₹ 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**
2007-08	**601**	**16,179**	**2,823,170**	**11,380**	**174.50**	**70,632**	**285**	**211**	**490**	**12.26**	**0.02**
2008-09	**711**	**16,129**	**3,359,515**	**14,116**	**208.30**	**65,937**	**277**	**257**	**635**	**12.47**	**0.02**
2009-10	**1,144**	**24,069**	**5,638,159**	**23,591**	**234.20**	**124,904**	**523**	**2,235**	**4,328**	**90.41**	**0.08**
Apr-10	326	1,911	618,241	32,539	323.50	13,726	722	50	101	2.24	0.02
May-10	324	2,555	732,511	36,626	286.70	16,264	813	43	98	2.18	0.01
Jun-10	297	2,027	501,427	22,792	247.40	11,133	506	120	243	5.40	0.05
Jul-10	239	1,618	471,346	21,425	291.30	10,465	476	73	144	3.20	0.03
Aug-10	259	1,945	451,085	21,480	231.90	10,015	477	237	448	9.95	0.10
Sep-10	278	2,094	451,864	22,593	215.80	10,032	502	310	596	13.23	0.13
Oct-10	248	1,510	459,129	21,863	304.10	10,283	490	123	313	7.01	0.07
Nov-10	225	1,191	324,445	16,222	272.40	7,266	363	59	153	3.43	0.05
Dec-10	245	1,561	339,621	15,437	217.60	7,606	346	355	879	19.69	0.26
Jan-11	237	1,213	452,198	22,610	372.80	10,128	506	8	15	0.34	0.00
Feb-11	224	1,195	348,970	18,367	292.00	7,816	411	13	30	0.67	0.01
Mar-11	265	1,563	443,633	20,165	283.83	9,936	452	6	32	0.72	0.01
2010-11	**1,111**	**20,383**	**5,594,468**	**22,558**	**274.47**	**125,296**	**505**	**1397**	**3,052**	**68.35**	**0.05**
Apr-11	224	1,194	397,518	24,845	332.90	8,125	508	95	178	3.64	0.04
May-11	193	1,136	363,504	17,310	320.00	7,430	354	93	234	4.78	0.06
Jun-11	243	1,791	508,231	23,101	283.77	10,388	472	191	402	8.22	0.08
Jul-11	280	2,012	469,731	22,368	233.50	9,601	457	145	468	9.57	0.10
Aug-11	258	2,411	548,258	27,413	227.40	11,206	560	40	129	2.64	0.02
Sep-11	256	2,122	503,145	25,157	237.10	10,284	514	104	210	4.29	0.04
Apr-Sep 2011	**715**	**10,666**	**2,790,387**	**23,253**	**261.62**	**57,034**	**475**	**668**	**1,621**	**33.13**	**0.06**

Source : NSE

Annexure 5-2: FIMMDA NSE MIDBID/MIBOR Rates

Month/Date	OVERNIGHT AT 9.40 a.m.		3 DAY 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	MIBID	MIBOR
30-Apr-10	-	-	3.81	3.89	3.85	4.14	4.13	4.46	4.62	5.01
31-May-10	5.15	5.25	4.66	4.80	4.26	4.69	4.59	4.95	4.95	5.33
30-Jun-10	5.61	5.73	5.44	5.50	5.33	5.72	5.77	6.26	5.99	6.50
31-Jul-10	5.86	5.90	4.73	4.87	5.36	5.71	5.81	6.15	6.14	6.53
31-Aug-10	5.06	5.13	4.54	4.62	5.31	5.65	5.88	6.22	6.52	6.90
29-Sep-10	7.20	7.28	6.08	6.17	6.23	6.60	6.58	6.97	7.10	7.49
29-Oct-10	7.36	7.66	7.51	7.70	6.73	7.20	7.13	7.52	7.50	7.85
30-Nov-10	6.53	6.64	6.81	6.89	7.15	7.44	7.47	7.80	7.82	8.19
31-Dec-10	6.64	6.71	6.64	6.71	7.42	7.87	8.14	8.54	8.59	9.00
31-Jan-11	6.93	7.00	6.66	6.73	7.13	7.57	7.59	8.12	8.87	9.30
28-Feb-11	6.93	7.00	6.73	6.80	7.35	7.61	8.07	8.42	9.31	9.66
31-Mar-11	**9.00**	**9.24**	**9.07**	**9.34**	**9.23**	**9.66**	**9.54**	**9.91**	**9.85**	**10.15**
29-Apr-11	6.82	6.89	6.82	6.89	7.31	7.67	7.79	8.24	8.68	9.06
31-May-11	7.34	7.40	7.40	7.45	7.87	8.18	8.51	8.90	9.31	9.70
30-Jun-11	7.70	7.75	7.70	7.75	8.32	8.64	8.75	9.07	9.15	9.43
29-Jul-11	7.97	8.04	7.96	8.03	8.35	8.66	8.78	9.05	9.16	9.41
30-Aug-11	8.01	8.06	7.97	8.02	8.34	8.67	8.71	9.05	9.12	9.50
29-Sep-11	**8.27**	**8.32**	**8.27**	**8.33**	**8.73**	**9.01**	**8.96**	**9.24**	**9.23**	**9.51**

14 Day : Disseminated since November 10, 1998.
1 month : Disseminated since December 1, 1998.
3 month : Disseminated Since December 1, 1998.

6. Derivatives Market

Introduction

The emergence and growth of the market for derivative instruments can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. Derivatives are meant to facilitate the hedging of price risks of inventory holdings or a financial/commercial transaction over a certain period. By locking in asset prices, derivative products minimize the impact of fluctuations in asset prices on the profitability and cash flow situation of risk-averse investors, and thereby, serve as instruments of risk management. By providing investors and issuers with a wider array of tools for managing risks and raising capital, derivatives improve the allocation of credit and the sharing of risk in the global economy, lowering the cost of capital formation and stimulating economic growth. Now that world markets for trade and finance have become more integrated, derivatives have strengthened these important linkages between global markets, increasing market liquidity and efficiency, and have facilitated the flow of trade and finance.

Following the growing instability in the financial markets, the financial derivatives gained prominence after 1970. In recent years, the market for financial derivatives has grown in terms of the variety of instruments available, as well as their complexity and turnover. Financial derivatives have changed the world of finance through the creation of innovative ways to comprehend, measure, and manage risks.

India's tryst with derivatives began in 2000 when both the NSE and the BSE commenced trading in equity derivatives. In June 2000, index futures became the first type of derivate instruments to be launched in the Indian markets, followed by index options in June 2001, options in individual stocks in July 2001, and futures in single stock derivatives in November 2001. Since then, equity derivatives have come a long way. New products, an expanding list of eligible investors, rising volumes, and the best risk management framework for exchange-traded derivatives have been the hallmark of the journey of equity derivatives in India so far.

India's experience with the 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 ₹ 23,654 million in 2000–2001 to ₹ 292,482,211 million in 2010–2011, and reached ₹ 157,585,925 million in the first half of 2011–2012. The average daily turnover in these market segment on the NSE was ₹ 1,151,505 million in 2010–2011 compared to ₹ 723,921 in 2009–2010.

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 in India's securities markets, which are based on nationwide market access, anonymous electronic trading, and a predominant retail market. There is an increasing sense that the equity derivatives market plays a major role in shaping price discovery.

Table 6-1: Benchmark Indices—Contracts and Volume in Futures and Options Segment of NSE for the Fiscal Year 2010–2011 and the first half of 2011–2012

Indices/ Period	No of Contracts	Traded Value (₹ mn.)	Traded Value (US $ mn.)	Percentage of Contracts to total contracts (%)	No of Contracts	Traded Value (₹ mn.)	Traded Value (US $ mn.)	Percentage of Contracts to total contracts (%)
	2010-2011				April - September 2011			
Index Futures								
NIFTY	133,368,752	37,184,645	832,803	16.35	57,212,398	15,340,099	313,541	11.53
MINIFTY	14,658,741	1,626,215	36,421	1.80	6,980,517	751,194	15,354	1.41
BANKNIFTY	16,927,993	4,733,010	106,002	2.08	7,606,559	2,006,688	41,015	1.53
CNXIT	66,951	23,249	521	0.01	34,025	10,582	216	0.01
NFTYMCAP50	1,216	427	10	0.00	188	39	1	0.00
DJIA	*	*	*	*	48,003	13,375	273	0.01
S&P500	*	*	*	*	22,910	6,711	137	0.00
Index Options								
NIFTY	649,332,017	183,313,790	4,105,572	79.61	423,444,062	114,618,092	2,342,716	85.31
MINIFTY	165,856	18,800	421	0.02	112,011	12,453	255	0.02
BANKNIFTY	1,102,592	313,348	7,018	0.14	853,488	226,257	4,625	0.17
CNXIT	1,237	426	10	0.00	0	0	0	0.00
NFTYMCAP50	36,855	7,294	163	0.00	1,725	343	7	0.00
S&P500	*	*	*	*	20,252	6,124	125	0.00
Total of all Indices	**815,662,210**	**227,221,203**	**5,088,941**	**100.00**	**496,336,138**	**132,991,956**	**2,718,266**	**100.00**
Total of Nifty Index Futures and Options	782,700,769	220,498,435	4,938,375	95.96	480,656,460	129,958,191	2,656,257	96.84

Source: NSE

**:- With effective 29th August 2011, two new indices i.e. DJIA and S&P500 have been included.*

Global Derivatives Markets

After the credit crisis took its toll in 2009, the global futures and options industry returned to rapid growth in 2010 after leveling off in 2009. Looking at the global trends in derivatives volume by category, we find that the currency sector was the most powerful driver of increase in the volumes of exchange-traded derivative contracts in 2010, followed by trading in agricultural derivative products, which grew at 40.73 percent (Table 6-2). The trading volume in non-precious metals, on the other hand, continued to gain in 2010 when compared to the volume in 2009, with an increase in volume by 39.17 percent.

Table 6-2: Global Exchange-traded Derivatives Volume by Category

(in millions)

GLOBAL	Jan-Dec 2008	Jan-Dec 2009	Jan-Dec 2010	(%) Change
Equity Index	6,488.62	6,381.90	7,413.79	16.2%
Individual Equity	5,511.19	5,554.00	6,285.49	13.2%
Interest Rate	3,204.84	2,467.70	3,208.81	30.0%
Agricultural	894.60	927.60	1,305.38	40.7%
Energy	580.90	655.90	723.59	10.3%
Currency	597.40	992.40	2,401.87	142.0%
Precious Metal	157.40	151.20	175.00	15.7%
Non-precious metal	198.70	462.50	643.65	39.2%
Other	44.80	114.40	137.66	20.3%
Total Volume	**17,678.45**	**17,707.60**	**22,295.25**	**25.9%**

Source: Futures Industry Annual Volume Survey, March 2011

Exchanges in Asia grew especially rapidly in 2010, with growth rates of 42.8 percent, accounting for 39.8 percent of the global volume, compared to 32.2 percent for North America and 19.8 percent for Europe. Most of the increase in volume came from exchanges in China, India, and Korea. In India, the growth story was driven mainly by financial contracts, foreign exchange contracts in particular. In 2010, the dollar-rupee contract traded on the MCX-SX had a volume of 821.3 million contracts, making it the second most actively traded contract across all derivatives exchanges in the world. One of the most interesting stories in the Asia-Pacific region is the growth of equity index futures and options. These products are traded all across the regions, with some being relatively new to the market and others being very well-established. The newest of the group is the CSI 300 stock index futures, which began trading in April on the China Financial Futures Exchange in Shanghai, and the Kospi 200 index options is the region's most actively traded equity index contract. For many years, the Kospi option was responsible for most of the trading volume of the Korea Exchange, which is no longer the case. The total number of futures and options contracts traded on the 70 exchanges worldwide tracked by the Futures Industry Association went up from 17.7 billion in 2009 to 22.3 billion in 2010, a growth of about 25.9 percent.

Table 6-3: Top 5 Exchanges in various Derivative Contracts

(in million)

Top 5 exchanges by number of single stock futures contracts traded in 2010				
		2010	**2009**	**% change**
1	NYSE Liffe Europe	291.27	179.03	62.69%
2	**National Stock Exchange of India**	**175.67**	**161.05**	**9.08%**
3	Eurex	150.75	113.75	32.52%
4	Johannesburg Stock Exchange	78.76	88.87	-11.38%
5	Korea Exchange	44.71	36.97	20.94%
Top 5 exchanges by number of single stock options contracts traded in 2010				
		2010	**2009**	**% change**
1	Chicago Board Options Exchange (CBOE)	806.99	911.98	-11.51%
2	BM&FBOVESPA	802.23	546.79	46.72%
3	International Securities Exchange (ISE)	733.61	946.69	-22.51%
4	NASDAQ OMX PHLX	554.08	579.91	-4.45%
5	Eurex	283.34	282.83	0.18%

Contd.

Contd.

Top 5 exchanges by number of Stock index options contracts traded in 2010				
		2010	**2009**	**% change**
1	Korea Exchange	3,525.90	2,920.99	20.71%
2	**National Stock Exchange of India**	**529.77**	**321.27**	**64.90%**
3	Eurex	342.92	364.95	-6.04%
4	Chicago Board Options Exchange (CBOE)	270.01	222.78	21.20%
5	Taifex	88.91	76.18	16.71%
Top 5 exchanges by number of Stock index futures contracts traded in 2010				
		2010	**2009**	**% change**
1	CME Group	695.15	703.07	-1.13%
2	Eurex	**407.77**	**367.55**	**10.94%**
3	**National Stock Exchange of India**	156.35	195.76	-20.13%
4	Osaka Securities Exchange	147.60	130.11	13.44%
5	NYSE Liffe Europe	94.27	85.96	9.67%

Source:WFE Market Highlights 2010

In terms of the number of single stock futures contracts traded in 2010, the NSE held the second position. It was second in terms of the number of stock index options contracts traded and third in terms of the number of stock index futures contracts traded in 2010. These rankings are based on the World Federation of Exchanges (WFE) Market Highlights 2010 (Table 6-3).

Table 6-4: Global Futures and Options Volume

Rank			Volume (in million)		
2010	**2009**	**Exchange**	**Jan-Dec 2010**	**Jan-Dec 2009**	**Jan-Dec 2008**
1	1	Korea Exchange	3748.9	3102.9	2865.5
3	2	Eurex (includes ISE)	2642.1	2647.4	3172.7
2	3	CME Group (includes CBOT and Nymex)	3080.5	2589.5	3277.6
4	4	NYSE Euronext (includes all EU and US markets)	2154.7	1729.9	1675.8
7	5	Chicago Board Options Exchange	1123.5	1135.9	1194.5
6	6	BM&F Bovespa	1422.1	920.3	741.9
5	**7**	**National Stock Exchnage of India**	**1615.8**	**918.5**	**601.5**
8	8	Nasdaq OMX Group	1099.4	814.6	722.1
10	9	Russian Trading systems stock exchange	624.0	474.4	238.2
11	10	Shanghai Futures Exchange	621.9	434.8	140.3
13	11	Dalian Commodity Exchange	403.2	416.8	319.1
9	12	Multi Commodity Exchange of India (includes MCX-SX)	1081.8	384.7	103.0
14	13	Intercontinental Exchange (includes US, UK and Canada Markets)	328.9	257.1	234.4
12	14	Zhengzhou Commodity Exchange	495.9	227.1	222.6

Contd.

Contd.

16	15	JSE Securities Exchange South Africa	169.9	166.6	513.6
15	16	Osaka Securities Exchange	196.4	166.0	163.7
22	17	Boston Options Exchange	91.8	137.7	178.7
17	18	Taiwan Futures Exchange	139.8	135.1	136.7
19	19	London Metal Exchange	120.3	111.9	113.2
20	20	Hong Kong Exchanges & Clearing	116.1	98.5	105.0
25	21	Mercado Espanol de Opciones y Futuros Financieros	70.2	93.0	83.4
18	22	Tokyo Financial Exchange	121.2	83.6	66.9
26	24	Turkish Derivatives Exchange	64.0	79.4	54.5
23	25	Tel-Aviv Stock Exchange	80.4	70.9	92.6
28	26	Singapore Exchange	61.8	53.1	61.8
27	27	Mercado a Termino de Roasario	62.0	51.5	42.2
31	28	Mexican Derivatives Exchange	42.6	48.8	70.1
33	34	Moscow Interbank Currency Exchange	32.0	19.3	131.9
34	32	Tokyo Commodity Exchange	27.6	28.8	41.0
30	30	Bourse de Montreal	44.3	34.8	38.1
35	33	Tokyo Stock Exchange	26.9	26.2	32.5
32	**31**	**National Commodity & Derivatives Exchange (India)**	**40.2**	**29.9**	**24.6**
38	36	Oslo stock Exchange	13.6	13.5	16.1
40	37	Budapest Stock Exchange	11.8	11.8	13.4
37	35	Warsaw Stock Exchange	14.7	13.8	12.6
46	42	Tokyo Grain Exchange	2.9	4.8	8.4
41	38	Athens Derivatives Exchange	8.5	7.9	7.2
44	45	One Chicago	5.0	3.0	4.0
43	43	Kansas City Board of Trade	5.7	3.8	4.0
39	41	ELX	13.1	5.0	0.0
51	46	Central Japan Commodity Exchanges	0.7	1.8	3.3
45	44	Thailand Futures Exchange	4.2	3.1	2.1
48	47	New Zealand Futures Exchange	1.4	1.5	1.5
47	49	Minneapolis Grain Exchange	1.7	1.2	1.4
49	50	Wiener Boerse	0.8	0.8	1.1
50	51	Dubai Mercantile Exchange	0.7	0.6	0.3
53	53	Kansai Commodities Exchange	0.1	0.1	0.2
52	52	Mercado a Termino de Buenos Aires	0.2	0.2	0.2

Source: Futures Industry Annual Volume Survey, March 2011
Notes: # new entrants in the list by way of new exchange or new merged exchange
Ranking does not include exchanges that do not report their volume to the FIA

Table 6-4 provides ranking of the various exchanges in terms of the number of futures and options traded and/or cleared in 2010 and 2009. The NSE improved its ranking in 2010 in terms of traded volumes in futures and options taken together, improving its worldwide ranking from 15th in 2006 to eighth position in 2008, seventh in 2009, and fifth in 2010. The traded volumes in the derivatives segment of the NSE saw an increase of 75.92 percent in 2010, compared to the volumes in 2009.

Policy Developments

I. Standardized lot size for derivative contracts on individual securities

The SEBI, in consultation with the stock exchanges, decided to standardize the lot size for derivative contracts on individual securities. The stock exchanges shall ensure that the lot size is the same for an underlying traded across exchanges. The stock exchanges shall review the lot size once in six months, based on the average of the closing price of the underlying for the last one month, and wherever warranted, revise the lot size by giving an advance notice of at least two weeks to the market.

II. Introduction of derivative contracts on Volatility Index

In continuation to the SEBI circular dated January 15, 2008 regarding the introduction of the volatility index, the capital market regulator, vide its circular dated April 27, 2010, decided to permit stock exchanges to introduce derivatives contracts on volatility index. The introduction of derivatives contracts on volatility index is subject to the condition that the underlying volatility index has a track record of at least one year.

III. Introduction of index options with tenure up to five years

Further to SEBI's circular dated January 11, 2008, regarding the introduction of index options with a tenure up to three years, the SEBI decided to permit the stock exchanges to introduce option contracts on the SENSEX and the Nifty with a tenure up to five years. The introduction of such five-year option contracts will be subject to the condition that there are eight semi-annual contracts of the cycle June/December together with three serial monthly contracts, and three quarterly contracts of the cycle March/June/September/December.

IV. Revised exposure margin for exchange-traded equity derivatives

In a modification to SEBI's circular on exposure margin, the SEBI decided (vide its circular dated July 7, 2010) that the exposure margin for exchange-traded equity derivatives shall be the higher of 5 percent or 1.5 times the standard deviation (of daily logarithmic returns of the stock price). In its earlier circular on October 15, 2008, on the said exposure margin, the SEBI had specified that the margin shall be the higher of 10 percent or 1.5 times the standard deviation (of daily logarithmic returns of the stock price) of the notional value of the gross open position in single stock futures, and the gross short open position in stock options in a particular underlying.

V. Physical settlement of stock derivatives

In continuation to SEBI's circular dated June 20, 2001 and November 02, 2001 regarding the settlement of stock options and stock futures contracts, respectively, the SEBI—based on the recommendations of the Derivatives Market Review Committee and in consultation with stock exchanges—decided to provide flexibility to the stock exchanges to offer:

a) Cash settlement (settlement by payment of differences) for both stock options and stock futures; or

b) Physical settlement (settlement by delivery of underlying stock) for both stock options and stock futures; or

c) Cash settlement for stock options and physical settlement for stock futures; or

d) Physical settlement for stock options and cash settlement for stock futures.

Vide its circular dated July 15, 2010, the SEBI has decided that the stock exchanges may introduce physical settlement in a phased manner. On introduction, however, physical settlement for all stock options and/or all stock futures must be completed within six months of its introduction.

VI. Options on USD-INR spot rate

The SEBI, vide its circular dated July 30, 2010, has allowed for the introduction of options on USD-INR spot rate on the currency derivatives segment of the stock exchanges. Premium styled European call and put options can be introduced on the USD-INR spot rate. The contract would be settled in cash in Indian rupees, and the final settlement price would be the RBI Reference Rate on the date of expiry of the contracts.

VII. European-style stock options

In continuation of SEBI's circular dated June 20, 2001 on the exercise style of stock option contracts, the SEBI (in consultation with the stock exchanges) decided to provide flexibility to the stock exchanges to offer either European-style or American-style stock options. After opting for a particular style of exercise, a stock exchange shall offer options contracts of the same style on all eligible stocks. Further, a stock exchange may change to another style of exercise only after seeking prior approval from the SEBI. The contracts specifications, including the risk management framework applicable for American-style stock options, shall apply to the European-style stock options.

VIII. Introduction of derivative contracts on foreign stock indices

The SEBI has decided to permit the stock exchanges to introduce derivative contracts (Futures and Options) on foreign stock indices in the equity derivatives segment. A stock exchange may introduce derivatives on a foreign stock index if:

a) Derivatives on that index are available on any of the stock exchanges prescribed by the SEBI.

b) In terms of trading volumes (number of contracts), the derivatives on that index figure among the top 15 index derivatives globally, OR

   That Index has a market capitalization of at least US $ 100 billion.

c) That index is "broad based". An index is broad based if:

   - The index consists of a minimum of 10 constituent stocks, and
   - No single constituent stock has more than 25 percent of the weight—computed in terms of free-float market capitalization—in the index.

After the introduction of derivatives on a particular stock index, if that stock index fails to meet any of the eligibility criteria for three months consecutively, no fresh contract shall be introduced on that index. However, the existing unexpired contracts would be traded until expiry, and new strikes may be introduced on those contracts. The absolute numerical value of the underlying foreign stock index shall be denominated in Indian Rupees (₹). The derivatives contracts on that foreign stock index would be denominated, traded, and settled in Indian Rupees. Trading in derivatives on foreign stock indices shall be restricted to the residents of India.

IX. Futures on 91-day Government of India Treasury Bill (T-Bill)

As a continuation of the SEBI circular no. SEBI/DNPD/Cir-46/2009 dated August 28, 2009 regarding Exchange Traded Interest Rate Futures, the SEBI decided to permit the introduction of futures on 91-day Government of India Treasury Bills (T- Bill) on the currency derivatives segment of the stock exchanges.

Contracts Specifications

Symbol	91DTB
Market type	N
Instrument type	FUTIRT
Unit of trading	One contract denotes 2000 units (face value ₹ 2 lakh)
Underlying	91-day Government of India (GOI) Treasury Bill
Tick size	0.25 paise (i.e., ₹ 0.0025)
Trading hours	Monday to Friday 9:00 am to 5:00 pm
Contract trading cycle	3 serial monthly contracts followed by 3 quarterly contracts of the cycle March/June/September/December
Last trading day	Last Wednesday of the expiry month at 1.00 pm In case last Wednesday of the month is a designated holiday, the expiry day would be the previous working day
Price quotation	100 minus futures discount yield e.g., for a futures discount yield of 5 percent p.a., the quote shall be 100 - 5 = ₹ 95
Contract value	₹ 2000 * (100 - 0.25 * y), where *y* is the futures discount yield e.g., for a futures discount yield of 5 percent p.a., the contract value shall be 2000 * (100 - 0.25 * 5) = ₹ 197500
Quantity freeze	7,001 lots or greater
Base price	Theoretical price of the first day of the contract On all other days, the quote price corresponding to the daily settlement price of the contracts
Price operating range	+/-1 percent of the base price
Position limits	**Clients**: 6 percent of total open interest or ₹ 300 crore, whichever is higher **Trading Members**: 15 percent of the total open interest or ₹ 1000 crore, whichever is higher
Initial margin	SPAN ® (Standard Portfolio Analysis of Risk) based subject to minimum of 0.1 percent of the notional value of the contract on the first day and 0.05 percent of the notional value of the contract thereafter
Extreme loss margin	0.03 percent of the notional value of the contract for all gross open positions
Settlement	Daily settlement MTM: T + 1 in cash Delivery settlement: Last business day of the expiry month.
Daily settlement	Mark to Mark (MTM): T + 1 in cash
Daily settlement price & Value	₹ (100 - 0.25 * yw), where *yw* is the weighted average futures yield of trades during the time limit as prescribed by the NSCCL. In the absence of trading in the prescribed time limit, theoretical futures yield shall be considered.
Daily contract settlement value	₹ 2000 * daily settlement price
Final contract settlement value	₹ 2000 * (100 - 0.25 * yf), where *yf* is the weighted average discount yield obtained from the weekly auction of 91-day T-Bills conducted by the RBI on the day of expiry
Mode of settlement	Settled in cash in Indian Rupees

X. Self clearing member in the currency derivatives (Circular date : May 13, 2011)

With regard to the newly created category of self clearing member in the currency derivatives segment of a stock exchange (communicated vide notification no. LADNRO/ GN/2011-12/01/11486 dated April 6, 2011), has the SEBI clarified that such self clearing member shall have a minimum net worth of ₹ 5 crore.

XI. Liquidity enhancement schemes for illiquid securities in equity derivatives segment (Circular date : June 02, 2011)

In consultation with the BSE, the MCX-SX, the NSE, and the USE, the SEBI has decided to permit stock exchanges to introduce one or more liquidity enhancement schemes (LES) to enhance the liquidity of illiquid securities in their equity derivatives segments. The stock exchange shall ensure that the LES, including any modifications therein or its discontinuation, has the prior approval of the Board, and that its implementation and outcome are monitored by the Board at quarterly intervals. The exchanges have to disclose to the market at least 15 days in advance, and its outcome (incentives granted and volume achieved, liquidity enhancer-wise and security-wise) should be disseminated monthly within a week of the close of the month. The LES can be introduced in any of the following securities:

a) New securities permitted on the stock exchange after the date of this circular;

b) Securities in the case of a new stock exchange /new segment; and

c) Securities where the average trading volume for the last 60 trading days on the stock exchange is less than 0.1 percent of the market capitalization of the underlying.

The LES can be discontinued at any time with an advance notice of 15 days. However, it shall be discontinued as soon as the average trading volume on the stock exchange during the last 60 trading days reaches 1 percent of the market capitalization of the underlying, or six months from the introduction of the scheme, whichever is earlier.

The incentives under the LES shall be transparent and measurable. These may take one of two forms:

a) Discount in fees, adjustment in fees in other segments, cash payment; or

b) Shares, including options and warrants, of the stock exchange.

If a stock exchange chooses option 'a', the incentives under all the LES during a financial year shall not exceed 25 percent of the net profits, or 25 percent of the free reserves of the stock exchange, whichever is higher, as per the audited financial statements of the preceding financial year. If, however, a stock exchange chooses option 'b', the shares—including the shares that may accrue on the exercise of warrants or options—given as incentives under all LES during a financial year shall not exceed 25 percent of the issued and outstanding shares of the stock exchange as on the last day of the preceding financial year.

Market Design

Only two exchanges in India have been permitted to trade in equity derivatives contracts—the NSE and the BSE. The NSE's market share in the total turnover of the derivatives market is a tad lower than the 100 percent mark. Hence, the market design enumerated in this section is with reference to the derivative segment of the NSE (hereafter referred to as the F&O segment).

The different aspects of the market design for the F&O segment of the exchanges can be summarized as follows:

Trading Mechanism	The futures and options trading system of the NSE, called the NEAT-F&O trading system, provides a fully automated, screen-based, anonymous order driven trading system for derivatives on a nationwide basis, and an online monitoring and surveillance mechanism. There are four entities in the trading system: a. *Trading members*, who are members of the NSE, and can trade either on their own account or on behalf of their clients, including participants. b. *Clearing members*, who are members of the 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. c. *Professional clearing members* (PCM) are clearing members who are not trading members. Typically, banks and custodians become PCMs, and clear and settle for their trading members. d. *Participants* are clients of trading members such as 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 the 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 the F&O segment are discussed in Chapter 4.)

Contracts available

- Index futures and index options contracts on the NSE based on the Nifty 50 Index, the CNX IT Index, the Bank Nifty Index, and the Nifty Midcap 50.
- Index futures contracts on the global indices Dow Jones Industry Average and the S&P 500, and option contracts on the S&P 500.
- Stock futures and options based on 228 individual securities.

Charges

The transaction charges payable to the exchange by the trading member for the trades executed by him/her on the F&O segment are fixed at ₹ 2 per lakh of turnover (0.002 percent), subject to a minimum of ₹ 1,00,000 per year. For the transactions in the options sub-segment, however, the transaction charges are levied on the premium value at the rate of 0.05 percent (each side), instead of on the strike price as levied in the previous case.

The NSE has reduced the transaction charges for trades done in the futures segment from its present level to a slab-based structure as given below, w.e.f. October 1, 2009.

Total Traded Value in a Month	Revised Transaction Charges (₹ per lakh of Traded Value)
Up to first ₹ 2500 crore	₹ 1.90 each side
More than ₹ 2500 crore and up to ₹ 7500 crore (on incremental volume)	₹ 1.85 each side
More than ₹ 7500 crore and up to ₹ 15000 crore (on incremental volume)	₹ 1.80 each side
Exceeding ₹ 15000 crore (on incremental volume)	₹ 1.75 each side

Securities Transaction Tax

The trading members are also required to pay a securities transaction tax (STT) on non-delivery transactions at the rate of 0.017 percent (payable by the seller) for derivatives, w. e. f. June 1, 2008.

Taxable securities transaction	Rate (percent)	Taxable Value	Payable by
Sale of an option in securities	0.017	Option premium	Seller
Sale of an option in securities, where option is exercised	0.125	Settlement Price	Purchaser
Sale of a futures in securities	0.017	Price at which such 'futures' are traded	Seller

The value of taxable securities transaction relating to an "option in securities" shall be the option premium, in the case of the sale of an option in securities. The value of taxable securities transaction relating to an "option in securities" will be the settlement price, in the case of the sale of an option in securities, where the option is exercised.

Contribution to Investor Protection Fund

The trading members contribute to the Investor Protection Fund of the F&O segment at the rate of ₹ 1 per ₹ 100 crore of the traded value (each side) in the case of the futures segment, and ₹ 1 per ₹ 100 crore of the premium amount (each side) in the case of the options segment.

Clearing and Settlement

- The National Securities Clearing Corporation Limited (NSCCL) undertakes the 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 cash settled, i.e., through the exchange of cash.

Risk Management Framework

The most critical component of the risk containment mechanism for the F&O segment is the margining system and the online position monitoring system. The actual position monitoring and margining is carried out online through the Parallel Risk Management System (PRISM). The PRISM uses SPAN®[1] (Standard Portfolio Analysis of Risk). The SPAN system is for the computation of online margins, based on the parameters defined by the SEBI.

The NSCCL has developed a comprehensive risk containment mechanism for the F&O segment. The salient features of the 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, and so on) are quite stringent.

b. The NSCCL charges an upfront initial margin for all the open positions of a clearing member (CM). It specifies the initial margin requirements for each futures/options contract on a daily basis. It follows a 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 the contract settlement price for each contract at the end of the day. The difference is settled in cash on a T+1 basis.

d. The NSCCL's online position monitoring system monitors a CM's open position on a real time basis. Limits are set for each CM based on his/her effective deposits. The online position monitoring system generates alert messages whenever a CM reaches 70 percent, 80 percent, and 90 percent, and a disablement message at 100 percent of the limit. The NSCCL monitors the CMs for initial margin violation and exposure margin violation, while the TMs are monitored for initial margin violation and position limit violation.

e. The CMs are provided with a trading terminal for monitoring the open positions of all the TMs clearing and settling through him/her. A CM may set the limits for the TM clearing and settling through him/her. The NSCCL assists the CM in monitoring the intra-day limits set up by a CM, and whenever a TM exceeds the limits, it stops that particular TM from further trading.

f. A member is alerted of his/her position to enable him/her to adjust his/her exposure or to bring in additional capital. Margin violations result in the disablement of the trading facility for all TMs of a CM in the case of a violation by the CM.

g. A separate settlement guarantee fund for this segment has been created out of the deposit made by the members.

Risk Containment Measures

Eligibility criteria for stock selection

The eligibility of a stock/index for trading in the derivatives segment is based upon the criteria laid down by the SEBI through the various circulars issued from time to time. Based on the SEBI guidelines and as a surveillance measure, the following criteria have been adopted by the NSE for selecting stocks and indices on which futures and options contracts would be introduced.

1. Eligibility criteria of stocks

- The stocks are to be chosen from among the top 500 stocks in terms of average daily market capitalization and average daily traded value in the previous six months on a rolling basis.

[1] SPAN ® is a registered trademark of the Chicago Mercantile Exchange (CME) used here under license.

- The stock's median quarter-sigma order size over the last six months should be not less than ₹ 5 lakh. For this purpose, a stock's quarter-sigma order size shall 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 (MWPL) in the stock should not be less than ₹ 100 crore. The market wide position limit (number of shares) shall be valued taking the closing prices of stocks in the underlying cash market on the date of expiry of contract in the month. The MWPL of the open position (in terms of the number of underlying stock) on futures and option contracts on a particular underlying stock shall be 20 percent of the number of shares held by non-promoters in the relevant underlying security (i.e., free-float holding).

2. Continued Eligibility

For an existing F&O stock, the continued eligibility criteria is that the market wide position limit in the stock shall not be less than ₹ 60 crore, and the stock's median quarter-sigma order size over the last six months shall not be less than ₹ 2 lakh. If an existing security fails to meet the eligibility criteria for three consecutive months, no fresh month contract shall be issued on that security. However, the existing unexpired contracts may be permitted to trade until expiry, and new strikes may also be introduced in the existing contract months. Further, once the stock is excluded from the F&O list, it shall not be considered for reinclusion for a period of one year.

3. Reintroduction of dropped stocks

A stock that 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 reintroduced for derivatives trading.

4. Eligibility criteria of stocks for derivatives trading especially on account of corporate restructuring

The eligibility criteria of stocks for derivatives trading on account of corporate restructuring are given below.

All the following conditions should be met in the case of the shares of a company undergoing restructuring through any means, for eligibility to reintroduce derivative contracts on that company from the first day of listing of the post-restructured company's/companies' (as the case may be) stock (herein referred to as post-restructured company) in the underlying market:

- The futures and options contracts on the stock of the original (pre-restructured) company were traded on any exchange prior to its restructuring;
- The pre-restructured company had a market capitalization of at least ₹ 1000 crore prior to its restructuring;
- The post-restructured company would be treated like a new stock if it is, in the opinion of the exchange, likely to be at least one-third the size of the pre-restructured company in terms of revenues, or assets, or (where appropriate) analyst valuations; and
- In the opinion of the exchange, the scheme of restructuring does not suggest that the post-restructured company would have any characteristics (for example, extremely low free-float) that would render the company ineligible for derivatives trading.

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 the introduction of fresh contracts on the post-restructured company.

- 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.
- In the 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 shall not permit further derivative contracts on this stock, and future month series shall not be introduced.

5. Eligibility criteria of indices

- The futures and options contracts on an index can be introduced only if the stocks contributing to 80 percent weightage of the index are individually eligible for derivatives trading. However, no single ineligible stock in the index shall have a weightage of more than 5 percent in the index. The index on which futures and options contracts are permitted shall be required to comply with the eligibility criteria on a continuous basis.
- The above criteria are applied every month; if the index fails to meet the eligibility criteria for three months consecutively, no fresh month contract shall be issued on that index. However, the existing unexpired contacts shall be permitted to trade until expiry, and new strikes may also be introduced in the existing contracts.

Margins Requirements

As discussed earlier, one of the critical components of the risk containment mechanism for the F&O segment is the margining system. This is explained below:

- **Initial margin:** The margin in the F&O segment is computed by the NSCCL up to the client level for the open positions of CMs/TMs. These are required to be paid upfront on a gross basis at the individual client level for client positions, and on a net basis for proprietary positions. The NSCCL collects the initial margin for all the open positions of a CM based on the margins computed by the NSE-SPAN. A CM is required to ensure the collection of adequate initial margins from his TMs upfront. The TM is required to collect adequate initial margins upfront from his clients.
- **Premium Margin:** In addition to the initial margin, a premium margin is charged at the client level. This margin is required to be paid by a buyer of an option until the premium settlement is complete.
- **Assignment Margin for Options on Securities:** An assignment margin is levied in addition to the initial margin and the premium margin. It is required to be paid on the assigned positions of the CMs towards the final exercise settlement obligations for option contracts on individual securities, until such obligations are fulfilled. The margin is charged on the net exercise settlement value payable by a CM towards the final exercise settlement.
- **Exposure margins:** Clearing members are subject to exposure margins in addition to initial margins.
- **Client Margins:** The NSCCL intimates all the members of the margin liability of each of their clients. Additionally, the members are required to report the details of the margins collected from their clients to the NSCCL, which holds the client margin monies in trust (to the extent reported by the member as having been collected from their respective clients).

Exposure Monitoring and Position Limit

Another component of the risk management framework for the derivatives segment is the stipulation of exposure limits and position limits on trading in the different categories of contracts by the 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 percent or 1.5 sigma of the notional value of gross open position	Higher of 5 percent or 1.5 sigma of the notional value of gross open position

Client Level	The gross open position for each client, across all the derivative contracts on an underlying should not exceed 1 percent of the free-float market capitalization (in terms of number of shares) or 5 percent of the open interest in all derivative contracts in the same underlying stock (in terms of number of shares), whichever is higher.		
Trading Member Level	The trading member position limits in equity index option contracts is higher of ₹ 500 crore or 15 percent of the total open interest in the market in equity index option contracts. This limit would be 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 ₹ 500 crore or 15 percent 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 ₹ 500 crore or more, the combined futures and options position limit is 20 percent of applicable MWPL or ₹ 300 crore, whichever is lower, within which stock futures position cannot exceed 10 percent of the applicable MWPL or ₹ 150 crore, whichever is lower. • For stocks having applicable MWPL less than ₹ 500 crore, the combined futures and options position limit would be 20 percent of the applicable MWPL, and the futures position cannot exceed 20 percent of the applicable MWPL or ₹ 50 crore, whichever 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 percent 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 and Mutual Funds:

Index Options	Index Futures	Stock Options	Stock Futures
₹ 500 crore or 15 percent of the total open interest of the market in index options, whichever is higher. This limit would be applicable on open positions in all options contracts on a particular underlying index.	₹ 500 crore or 15 percent of the total open interest of the market in index futures, whichever is higher. This limit would be applicable on open positions in all futures contracts on a particular underlying index.	For stocks having applicable market wide position limit (MWPL) of ₹ 500 crore or more, the combined futures and options position limit is 20 percent of the applicable MWPL or ₹ 300 crore, whichever is lower, within which stock futures position cannot exceed 10 percent of the applicable MWPL or ₹ 150 crore, whichever is lower.	

In addition to the above, FIIs and MFs can take 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.		For stocks having applicable market wide position limit (MWPL) less than ₹ 500 crore, the combined futures and options position limit is 20 percent of the applicable MWPL, and the futures position cannot exceed 20 percent of the applicable MWPL or ₹ 50 crore, whichever is lower.

NSCCL-SPAN

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

Its overriding objective is to determine the largest loss that a portfolio might reasonably be expected to suffer from one day to the next day, based on the 99 percent VaR methodology.

The SPAN considers the uniqueness of the option portfolios. The following factors affect the value of an option:

- Underlying market price;
- Volatility (variability) of underlying instrument; and
- Time to expiration.

As these factors change, the value of the options maintained within a portfolio also changes. Thus, the SPAN constructs the scenarios of probable changes in underlying prices and volatilities in order to identify the largest loss a portfolio might suffer from one day to the next. It then sets the margin requirement to cover this one-day loss.

The complex calculations (e.g., the pricing of options) in the SPAN are executed by the NSCCL. The results of these calculations are called risk arrays. Risk arrays and other necessary data inputs for margin calculation are provided to the members daily in a file called the SPAN Risk Parameter file. The 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, the members need not execute a complex option pricing calculation, which is performed by the NSCCL. The SPAN has the ability to estimate the risk for combined futures and options portfolios, and also to revalue the same under various scenarios of changing market conditions.

The NSCCL generates six risk parameter files for a day, taking into account prices and volatilities at various time intervals, which are provided on the Website of the Exchange.

Currency derivatives were launched on the NSE in August, 2008. The market design, including the risk management framework, for this new product is summarized below as follows :

Market Design for Currency Futures

The contract specifications for US Dollars–Indian Rupee (USD-INR), Euro–Indian Rupee (EUR-INR), Pound–Indian Rupee (GBP-INR), and Japanese Yen–Indian Rupee (JPY-INR) are summarized in the table below.

Symbol		USD-INR	EUR-INR	GBP-INR	JPY-INR
Market Type		Normal	Normal	Normal	Normal
Instrument Type		FUTCUR	FUTCUR	FUTCUR	FUTCUR
Unit of trading		1-1 unit denotes 1000 US $	1-1 unit denotes 1000 Euro	1-1 unit denotes 1000 Pound Sterling	1-1 unit denotes 100000 Japanese Yen
Underlying/Order Quotation		The exchange rate in Indian Rupees for US Dollars	The exchange rate in Indian Rupees for Euro	The exchange rate in Indian Rupees for Pound Sterling	The exchange rate in Indian Rupees for 100 Japanese Yen
Tick size		0.25 paise or ₹ 0.0025			
Trading hours		Monday to Friday 9:00 am to 5:00 pm			
Contract trading cycle		12-month trading cycle			
Last trading day		Two working days prior to the last business day of the expiry month at 12 noon			
Final settlement day		Last working day (excluding Saturdays) of the expiry month. The last working day will be the same as that for Interbank Settlements in Mumbai.			
Quantity Freeze		10,001 or greater			
Base price		Theoretical price on the 1st day of the contract; on all other days, Daily Settlement Price (DSP) of the contract	Theoretical price on the 1st day of the contract; on all other days, DSP of the contract	Theoretical price on the 1st day of the contract; on all other days, DSP of the contract	Theoretical price on the 1st day of the contract; on all other days, DSP of the contract
Price operating range	**Tenure up to 6 months**	+/-3 percent of base price			
	Tenure greater than 6 months	+/- 5 percent of base price			
Position limits	**Clients**	Higher of 6 percent of the total open interest or US $ 10 million	Higher of 6 percent of the total open interest or Euro 5 million	Higher of 6 percent of the total open interest or GBP 5 million	Higher of 6 percent of the total open interest or JPY 200 million
	Trading Members	Higher of 15 percent of the total open interest or US $ 50 million	higher of 15 percent of the total open interest or Euro 25 million	Higher of 15 percent of the total open interest or GBP 25 million	Higher of 15 percent of the total open interest or JPY 1000 million
	Banks	Higher of 15 percent of the total open interest or US $ 100 million	Higher of 15 percent of the total open interest or Euro 50 million	Higher of 15 percent of the total open interest or GBP 50 million	Higher of 15 percent of the total open interest or JPY 2000 million
Initial margin		SPAN-based margin			

Extreme loss margin	1 percent of the value of the gross open position	0.3 percent of the value of the gross open position	0.5 percent of the value of the gross open position	0.7 percent of the value of the gross open position
Calendar spreads	₹ 400 for spread of 1 month	₹ 700 for spread of 1 month	₹ 1500 for spread of 1 month	₹ 600 for spread of 1 month
	₹ 500 for spread of 2 months	₹ 1000 for spread of 2 months	₹ 1800 for spread of 2 months	₹ 1000 for spread of 2 months
	₹ 800 for spread of 3 months	₹ 1500 for spread of 3 months and more	₹ 2000 for spread of 3 months and more	₹ 1500 for spread of 3 months and more
	₹ 1000 for spread of 4 months and more			
Settlement	**Daily settlement**: T + 1			
	Final settlement: T + 2			
Mode of settlement	Cash settled in Indian Rupees			
Daily settlement price (DSP)	Calculated on the basis of the last half an hour weighted average price			
Final settlement price (FSP)	RBI reference rate	RBI reference rate	Exchange rate published by the RBI in its Press Release entitled "RBI reference Rate for US $ and Euro"	Exchange rate published by the RBI in its Press Release entitled "RBI reference Rate for US $ and Euro"

Eligibility criteria

The following entities are eligible to apply for membership subject to the regulatory norms and provisions of the SEBI and as provided in the rules, regulations, bye-laws, and circulars of the Exchange:

- Individuals;
- Partnership Firms registered under the Indian Partnership Act, 1932;
- Corporations, companies, or institutions, or subsidiaries of such corporations, companies, or institutions set up for providing financial services; and
- Such other persons as may be permitted under the Securities Contracts (Regulation) Rules, 1957.

Professional Clearing Member (PCM)

The following persons are eligible to become PCMs of the NSCCL for currency futures derivatives, provided they fulfill the prescribed criteria:

- SEBI Registered Custodians; and
- Banks recognized by the NSEIL/NSCCL for the issuance of bank guarantees.

Banks authorized by the RBI 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:

- Minimum net worth of ₹ 500 crore.
- Minimum CRAR of 10 percent.

- Net NPA should not exceed 3 percent.
- Made a net profit for the last three years.

The AD Category-I banks that fulfill the prudential requirements are required to lay down detailed guidelines with the approval of their Boards for the trading and clearing of currency futures contracts and the management of risks.

The AD Category-I banks that do not meet the above minimum prudential requirements and the AD Category-I banks that are Urban Co-operative banks or State Co-operative banks can participate in the currency futures market only as clients, subject to approval from the respective regulatory departments of the RBI.

Other applicable eligibility criteria

- Where the applicant is a partnership firm, 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 partnership firm including that of the said dominant promoter group or their shareholding interest shall be effected only with the prior permission of the NSEIL/SEBI.
- At any point of time, the applicant has to ensure that at least 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.
- 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 of admission as a trading member, or as per the time schedule specified by the Exchange.
- The trading members and sales persons in the currency futures market must have passed a certification program that is considered adequate by the SEBI.
- FIIs and NRIs are not allowed to trade in currency futures market.
- Strict enforcement of the "Know your customer" rule, which requires that every client shall be registered with the derivatives broker. The members of the derivatives segment are also required to make their clients aware of the risks involved in derivatives trading by issuing the Risk Disclosure Document to the client, and obtaining a copy of the same duly signed by the client.
- 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.

Margins

The NSCCL has developed a comprehensive risk containment mechanism for the currency derivatives segment. The most critical component of a risk containment mechanism for the NSCCL is the online position monitoring and margining system. The actual margining and position monitoring is done online, on an intra-day basis. The NSCCL uses the SPAN® system, which is a portfolio-based system, for margining.

1. **Initial Margins:** The NSCCL collects an initial margin upfront for all the open positions of a CM based on the margins computed by the NSCCL-SPAN®. A CM is in turn required to collect the initial margin from the TMs and his respective clients. Similarly, a TM is required to collect upfront margins from his clients. The initial margin requirements are based on a 99 percent VaR over a one-day time horizon. However, in the case of futures contracts, where it may not be possible to collect mark-to-market settlement value, before the commencement of trading on the next day, the initial margin is computed over a two-day time horizon, applying the appropriate statistical formula.

- **Extreme Loss margins:** In addition to initial margins, the clearing members are subject to extreme loss margins. The applicable extreme loss margin on the mark to market value of the gross open positions is as shown below, or as may be specified by the relevant authority from time to time.

USD-INR	EUR-INR	GBP-INR	JPY-INR
1 percent of the value of the gross open position	0.3 percent of the value of the gross open position	0.5 percent of the value of the gross open position	0.7 percent of the value of the gross open position

Market Design for Interest Rate Futures

Eligibility Criteria

The following entities are eligible to apply for membership, subject to the regulatory norms and provisions of the SEBI and as provided in the rules, regulations, bye-laws, and circulars of the Exchange:

- Existing members who are registered in either the currency derivatives segment or the F&O segment shall be eligible to trade in interest rate futures (IRF), subject to meeting the balance sheet net worth requirement of ₹ 100 lakh for trading membership, and ₹ 1000 lakh for trading cum clearing membership.
- New members interested in participating in IRF would be required to get registered in the currency derivatives segment of the Exchange in order to trade in IRF.

The contract specifications of IRF are as follows:

<table>
<tr><td>Symbol</td><td colspan="2">10YGS7</td></tr>
<tr><td>Market Type</td><td colspan="2">Normal</td></tr>
<tr><td>Instrument Type</td><td colspan="2">FUTIRD</td></tr>
<tr><td>Unit of trading</td><td colspan="2">1 lot-1 lot is equal to notional bonds of FV ₹ 2 lakh</td></tr>
<tr><td>Underlying</td><td colspan="2">10-Year Notional Coupon bearing Government of India (GOI) security (Notional Coupon 7 percent with semi-annual compounding)</td></tr>
<tr><td>Tick size</td><td colspan="2">₹ 0.0025</td></tr>
<tr><td>Trading hours</td><td colspan="2">Monday to Friday
9:00 am to 5:00 pm</td></tr>
<tr><td>Contract trading cycle</td><td colspan="2">Four fixed quarterly contracts for the entire year, ending March, June, September, and December</td></tr>
<tr><td>Last trading day</td><td colspan="2">Two business days prior to the last working day of the delivery/expiry month</td></tr>
<tr><td>Quantity Freeze</td><td colspan="2">1251 lots or greater</td></tr>
<tr><td>Base price</td><td colspan="2">Theoretical price of the 1st day of the contract; on all other days, DSP of the contract</td></tr>
<tr><td>Price operating range</td><td colspan="2">+/- 5 percent of the base price</td></tr>
<tr><td rowspan="2">Position limits</td><td>Clients</td><td>Trading Members</td></tr>
<tr><td>6 percent of the total open interest or ₹ 300 crore, whichever is higher</td><td>15 percent of the total open interest or ₹ 1000 crore, whichever is higher</td></tr>
<tr><td>Initial margin</td><td colspan="2">SPAN-based margin</td></tr>
<tr><td>Extreme loss margin</td><td colspan="2">0.3 percent of the value of the gross open positions of the futures contract</td></tr>
<tr><td rowspan="2">Settlement</td><td colspan="2">Daily settlement MTM: T + 1 in cash</td></tr>
<tr><td colspan="2">Delivery settlement: Last business day of the expiry month</td></tr>
<tr><td>Daily settlement price</td><td colspan="2">Closing price or theoretical price</td></tr>
<tr><td colspan="3">Delivery Settlement</td></tr>
</table>

Mode of settlement	Daily settlement in cash
Deliverable Grade Securities	GOI securities
Conversion Factor	The conversion factor would be equal to the price of the deliverable security (per Indian Rupee of principal) on the first calendar day of the delivery month, to yield 7 percent with semiannual compounding
Invoice Price	Daily settlement price times a conversion factor + accrued interest
Delivery day	Last business day of the expiry month
Intent to Deliver	Two business days prior to the delivery settlement day

Clearing and Settlement for IRFs

The National Securities Clearing Corporation Limited (NSCCL) is the clearing and settlement agency for all deals executed in interest rate futures. The NSCCL acts as the legal counterparty to all deals on IRF contracts, and guarantees settlement.

A clearing member (CM) of the NSCCL has the responsibility of clearing and settlement of all the deals executed on the NSE by the trading members (TM) who clear and settle such deals through them. A multilateral netting procedure is adopted to determine the net settlement obligations (delivery/receipt positions) of the clearing members. Accordingly, a clearing member would have either pay in or pay out obligations for funds and securities separately.

For IRF, settlement is done at two levels: mark-to-market (MTM) settlement, which is done on a daily basis, and final settlement, which happens on any day in the expiry month. Final settlement involves the physical delivery of the bond and can happen only on the expiry date.

Daily Mark-to-Mark Settlement: The positions in the futures contracts for each member are marked-to-market to the daily settlement price of the futures contracts at the end of each trade day. The profits/losses are computed as the difference between the trade price or the previous day's settlement price and the current day's settlement price. The CMs who have suffered a loss are required to pay the mark-to-market loss amount to the NSCCL, which is passed on to the members who have made a profit. This is known as daily mark-to-market settlement.

Daily mark-to-market settlement in respect of admitted deals in interest rate futures contracts is settled by cash, by the debit/credit of the clearing accounts of clearing members with the respective clearing bank.

Delivery Settlement: Trades in interest rate futures are physically settled by the delivery of government securities in the expiry month. The expiry month of the respective futures contract shall be the delivery month. The delivery settlement day of for interest rate futures contracts shall be the last business day of the delivery month.

Margins

Initial Margin: An initial margin is payable on all the open positions of the clearing members, up to the client level, and on an upfront basis by the clearing members in accordance with the margin computation mechanism and/or system. The initial margin includes the SPAN margins and other such additional margins. The minimum initial margin is 2.33 percent on the first day of IRF trading, and 1.6 percent thereafter, which will be scaled up by the look ahead period as may be specified by the clearing corporation from time to time.

The initial margin requirements are based on a 99 percent VaR over a one-day time horizon. However, in the case of futures contracts, where it may not be possible to collect mark–to-market settlement, before the commencement of trading on the next day, the initial margin is computed over a two-day time horizon by applying an appropriate statistical formula.

The risk parameters are updated six times a day, based on the prices/yield at 11:00 am, 12:30 pm, 2:00 pm, 3:30 pm, end of the day, and beginning of the day. For the purpose of intra-day updation, the yields of the benchmark 10-year security as published by FIMMDA from the NDS Order Matching platform are used.

Extreme Loss Margin: The clearing members are required to pay extreme loss margins in addition to the initial margins. The applicable extreme loss margin would be 0.3 percent of the value of the gross open positions of the futures contract, or as may be specified by the relevant authority from time to time.

Delivery margins: Once the positions are intended for delivery, and allocation has been done, the following margins are levied:

- Margin equal to VaR on the futures contract on the invoice price plus 5 percent on the face value of the security to be delivered; and
- Mark-to-market loss, based on the underlying closing price of the security intended for delivery.

The above margins are levied on both the buyer and the seller at a client level, and are aggregated at a clearing member level. The margins are levied from the intention day, and are released on completion of the settlement.

Non-Intent Margins: In the cases where the positions are open at the end of the last trading day and no intention to deliver has been received, the following margins are levied:

- Margin equal to VaR on the futures contract on the invoice price of the costliest to deliver security from the deliverable basket, plus 5 percent of the face value of the open positions; and
- Mark–to-market loss, based on the underlying closing price of the costliest to deliver security from the deliverable basket.

The above margins are levied on both the buyer and the seller at a client level, and are aggregated at a clearing member level. The margins are levied from the last trading day until the day of receipt of intention to deliver, following which the margins on delivery positions are levied.

Imposition of additional margins: As a risk containment measure, the clearing corporation may require the clearing members to make a payment of additional margins as may be decided from time to time. This is in addition to the initial margin and the extreme loss margin, which are (or may have been) imposed from time to time.

Settlement of contracts

- The contract will be settled by the physical delivery of deliverable grade securities using the electronic book entry system of the existing depositories, namely, the National Securities Depositories Ltd., the Central Depository Services (India) Ltd., and the Public Debt Office of the RBI.
- The NSE has constituted a group of market participants to advise the Exchange/clearing corporation on the securities that may be included in the deliverable basket. Based on the recommendations of this group, it has been decided that GoI securities maturing at least eight years but not more than 12 years from the first day of the delivery month with a minimum total outstanding stock of ₹ 10,000 crore would be eligible deliverable grade securities.

Interest Rate Futures (RBI) Directions, 2009

The RBI issued the Interest Rate Futures (Reserve Bank) Directions, 2009, on August 28, 2009, covering the framework for the trading of IRFs in recognized exchanges for persons dealing in the instruments. The highlights of the directions are:

- These directions define the interest rate futures product, and list out the permitted instruments and features of the product.
- Foreign Institutional Investors registered with the SEBI have been permitted to purchase or sell interest rate futures, subject to the condition that the total gross long (bought) position in cash and IRF markets taken together does not exceed their individual permissible limit for investment in government securities, and the total gross short (sold) position—for the purpose of hedging only—does not exceed their long position in the government securities and in IRF at any point in time.

- No scheduled bank or other such agencies falling under the regulatory purview of the RBI under the Reserve Bank of India Act, 1934, the Banking Regulation Act, 1949, or any other Act or instrument having the force of law is allowed to participate in the IRF market without prior permission from the respective regulatory department of the RBI.
- The agencies falling under the regulatory purview of any other regulator established by law are not allowed to participate in IRF market except with the permission of their respective regulators, and the participation of such agencies as members or clients will be in accordance with the guidelines issued by the regulator concerned.

Market Outcome

Trading Volumes

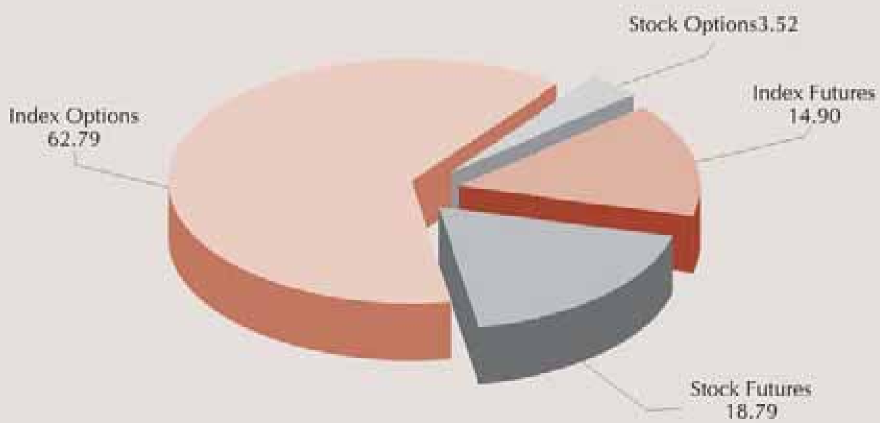
After recording a staggering year-on-year growth of 60.43 percent in trading volumn in 2009–2010, the NSE's derivatives market continued its momentum in 2010–2011 by clocking a growth of 65.58 percent (Table 6-5). The NSE further strengthened its dominance in the derivatives segment in 2010–2011 with a share of 99.99 percent of the total turnover in this segment. The share of the BSE in the total derivatives market turnover fell from 0.0013 percent in 2009–2010 to 0.0005 percent in 2010–2011. The total turnover of the derivatives segment jumped by 26.56 percent during the first half of 2011–2012 compared to the turnover in the corresponding period in the previous fiscal year.

Table 6-5: Trade Details of Derivatives Market

Month/ Year	NSE			BSE			TOTAL		
	No. of Contracts Traded	Turnover (₹ mn.)	Turnover (US$ million)	No. of Contracts Traded	Turnover (₹ mn.)	Turnover (US$ million)	No. of Contracts Traded	Turnover (₹ mn.)	Turnover (US$ million)
2008-09	**657,390,497**	**110,104,822**	**2,161,037**	**496,502**	**117,750**	**2,311**	**657,886,999**	**110,222,572**	**2,163,348**
2009-10	**679,293,922**	**176,636,663**	**3,913,085**	**9,026**	**2,341**	**52**	**679,302,948**	**176,639,004**	**3,913,137**
Apr-10	58,230,570	16,716,200	372,133	54	10	0	58,230,624	16,716,210	372,133
May-10	80,960,515	21,244,957	472,951	158	40	1	80,960,673	21,244,997	472,952
Jun-10	77,078,089	20,355,990	453,161	93	20	0	77,078,182	20,356,010	453,161
Jul-10	67,756,807	18,299,101	407,371	40	10	0	67,756,847	18,299,111	407,371
Aug-10	73,712,025	20,537,276	457,197	114	30	1	73,712,139	20,537,306	457,197
Sep-10	93,089,649	27,363,918	609,170	122	40	1	93,089,771	27,363,958	609,171
Oct-10	90,801,023	28,244,931	632,585	180	60	1	90,801,203	28,244,991	632,587
Nov-10	98,799,250	29,658,462	664,243	37	10	0	98,799,287	29,658,472	664,243
Dec-10	80,242,319	23,571,090	527,908	435	130	3	80,242,754	23,571,220	527,911
Jan-11	98,728,755	28,418,339	636,469	39	10	0	98,728,794	28,418,349	636,469
Feb-11	109,365,434	29,292,946	656,057	3,434	930	21	109,368,868	29,293,876	656,078
Mar-11	105,447,626	28,779,002	644,547	917	250	6	105,448,543	28,779,252	644,552
2010-11	**1,034,212,062**	**292,482,211**	**6,550,553**	**5,623**	**1,540**	**34**	**1,034,217,685**	**292,483,751**	**6,550,588**
Apr-11	81,540,014	23,513,002	480,590	4,925	1,480	30	81,544,939	23,514,482	480,620
May-11	96,041,825	26,051,378	532,473	9,054	2,830	58	96,050,879	26,054,208	532,530
Jun-11	90,744,339	24,381,766	498,347	2,418	720	15	90,746,757	24,382,486	498,362
Jul-11	91,377,746	25,649,648	524,261	1,268	360	7	91,379,014	25,650,008	524,269
Aug-11	116,885,761	29,637,492	605,770	2,164	580	12	116,887,925	29,638,072	605,782
Sep-11	114,305,645	28,352,638	579,509	31,782	8,400	172	114,337,427	28,361,038	579,680
Apr - Sep 2011	**590,895,330**	**157,585,925**	**3,220,950**	**51,611**	**14,370**	**294**	**590,946,941**	**157,600,295**	**3,221,243**

Source: NSE

Chart 6-1: Product-wise distribution of turnover of F&O segment of NSE (2010–2011)



Source: NSE

The index options segment was the clear leader in the product-wise turnover of the futures and options segment in the NSE in 2010–2011 (Table 6-6 and Chart 6-1). The turnover in the index options category was 62.79 percent of the total turnover in the F&O segment of the NSE, followed by the stock futures and index futures that saw a year-on-year growth of 18.79 percent and 14.90 percent, respectively. This trend continued in the first half of 2011–2012, with index options constituting around 72.89 percent of the total turnover in this segment. The turnover of index options zoomed by 59.93 percent during the first half of 2011–2012, compared to the turnover in the corresponding period in the previous fiscal year.

Implied Interest Rate

In the futures market, the implied interest rate or cost of carry is often used interchangeably. 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 financing cost. In the case of equity futures, the cost of carry 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. Cost of carry or implied interest rate plays an important role in determining the price differential between the spot and the futures market. The degree of relative costliness of a future rate can be assessed by comparing the implied rate with the spot rate. Implied interest rate is also a measure of the 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 implied interest rate for near month Nifty 50 futures as on the last trading day of the month is presented in Table 6-7.

Table 6-6: Product wise turnover on the derivatives segment of NSE

Year	Index Futures			Stock Futures			Index Options			Stock Options			Total		Average Daily Turnover (₹ mn.)
	No. of contracts	Turnover (₹mn.)	% share in total turnover	No. of contracts	Turnover (₹ mn.)	% share in total turnover	No. of contracts	Notional Turnover (₹mn.)	% share in total turnover	No. of contracts	Notional Turnover (₹ mn)	% share in total turnover	No. of contracts	Turnover (₹ mn)	
2004-05	**21,635,449**	**7,721,470**	**30**	**47,043,066**	**14,840,560**	**58**	**3,293,558**	**1,219,430**	**5**	**5,045,112**	**1,688,360**	**7**	**77,017,185**	**25,469,820**	**101,070**
2005-06	**58,537,886**	**15,137,550**	**31**	**80,905,493**	**27,916,970**	**58**	**12,935,116**	**3,384,690**	**7**	**5,240,776**	**1,802,530**	**4**	**157,619,271**	**48,241,740**	**192,200**
2006-07	**81,487,424**	**25,395,740**	**35**	**104,955,401**	**38,309,670**	**52**	**25,157,438**	**7,919,060**	**11**	**5,283,310**	**1,937,950**	**3**	**216,883,573**	**73,562,420**	**295,430**
2007-08	**156,598,579**	**38,206,673**	**29**	**203,587,952**	**75,485,632**	**58**	**55,366,038**	**13,621,109**	**10**	**9,460,631**	**3,591,366**	**3**	**425,013,200**	**130,904,779**	**521,533**
2008-09	**210,428,103**	**35,701,114**	**32**	**221,577,980**	**34,796,421**	**32**	**212,088,444**	**37,315,018**	**34**	**13,295,970**	**2,292,268**	**2**	**657,390,497**	**110,104,822**	**453,106**
2009-10	**178,306,889**	**39,343,887**	**22**	**145,591,240**	**51,952,466**	**29**	**341,379,523**	**80,279,642**	**45**	**14,016,270**	**5,060,652**	**3**	**679,293,922**	**176,636,647**	**723,921**
Apr-10	10,785,388	2,795,723	17	11,418,975	4,098,443	25	34,076,343	9,054,723	54	1,949,864	767,311	5	58,230,570	16,716,200	835,810
May-10	16,843,664	3,956,127	19	13,886,580	4,315,930	20	47,891,402	12,174,576	57	2,338,869	798,324	4	80,960,515	21,244,957	1,011,665
Jun-10	15,434,326	3,722,657	18	14,156,191	4,218,432	21	45,209,562	11,699,430	57	2,278,010	715,472	4	77,078,089	20,355,990	925,272
Jul-10	11,530,614	2,894,232	16	14,877,996	4,234,219	23	38,889,013	10,433,544	57	2,459,184	737,105	4	67,756,807	18,299,100	831,777
Aug-10	11,566,700	2,991,305	15	16,620,194	4,962,667	24	42,436,984	11,574,656	56	3,088,147	1,008,648	5	73,712,025	20,537,276	933,513
Sep-10	13,736,522	3,838,716	14	17,865,765	5,555,810	20	58,164,047	16,884,692	62	3,323,315	1,084,701	4	93,089,649	27,363,918	1,303,044
Oct-10	13,795,612	4,024,573	14	18,381,074	6,088,296	22	55,549,957	17,055,137	60	3,074,380	1,076,926	4	90,801,023	28,244,931	1,344,997
Nov-10	14,761,031	4,247,892	14	18,364,437	5,398,725	18	62,618,461	19,029,436	64	3,055,321	982,410	3	98,799,250	29,658,462	1,412,308
Dec-10	11,406,712	3,227,933	14	15,409,764	4,326,442	18	50,684,431	15,192,803	64	2,741,412	823,912	3	80,242,319	23,571,090	1,071,413
Jan-11	14,095,425	3,844,844	14	14,823,064	4,111,491	14	67,038,657	19,625,156	69	2,771,609	836,848	3	98,728,755	28,418,339	1,420,917
Feb-11	15,734,318	4,027,591	14	16,048,082	4,013,065	14	74,606,325	20,443,534	70	2,976,709	808,757	3	109,365,434	29,292,946	1,464,647
Mar-11	15,333,341	3,995,954	14	14,189,337	3,634,047	13	73,473,375	20,485,972	71	2,451,573	663,028	2	105,447,626	28,779,002	1,308,136
2010-11	**165,023,653**	**43,567,545**	**15**	**186,041,459**	**54,957,567**	**19**	**650,638,557**	**183,653,657**	**63**	**32,508,393**	**10,303,441**	**4**	**1,034,212,062**	**292,482,211**	**1,151,505**
Apr-11	10,271,439	2,823,027	12	12,880,705	3,531,593	15	56,031,353	16,458,807	70	2,356,517	699,576	3	81,540,014	23,513,002	1,306,278
May-11	11,888,838	3,057,446	12	13,474,455	3,366,886	13	68,034,536	18,928,965	73	2,643,996	698,082	3	96,041,825	26,051,378	1,184,154
Jun-11	10,313,335	2,651,777	11	12,993,351	3,226,950	13	64,833,325	17,845,705	73	2,604,328	657,335	3	90,744,339	24,381,766	1,108,262
Jul-11	10,048,859	2,656,409	10	12,260,020	3,498,907	14	66,268,437	18,677,255	73	2,800,430	817,077	3	91,377,746	25,649,648	1,221,412
Aug-11	14,585,694	3,471,766	12	13,366,537	3,337,909	11	86,141,851	22,095,237	75	2,791,679	732,580	2	116,885,761	29,637,492	1,411,309
Sep-11	14,796,435	3,468,263	12	13,329,926	3,262,895	12	83,122,036	20,857,300	74	3,057,248	764,180	3	114,305,645	28,352,638	1,350,126
Apr-Sep 2011	**71,904,600**	**18,128,687**	**12**	**78,304,994**	**20,225,140**	**13**	**424,431,538**	**114,863,268**	**73**	**16,254,198**	**4,368,830**	**3**	**590,895,330**	**157,585,925**	**1,260,687**

Source: NSE

Table 6-7: Implied Interest Rate for Near Month Nifty Futures (April 2010–September 2011)

Month	Expiry Date of near month Contract	Closing Future Price	Closing Spot Price	Implied Interest Rate (%)
Apr-10	29-Apr-2010	5262.80	5278.00	-3.90
May-10	27-May-2010	5056.20	5086.30	-9.03
Jun-10	24-Jun-2010	5316.25	5312.50	0.89
Jul-10	29-Jul-2010	5374.30	5367.60	1.69
Aug-10	26-Aug-2010	5403.70	5402.40	0.29
Sep-10	30-Sep-2010	6030.00	6029.95	7.22
Oct-10	28-Oct-2010	6043.60	6017.70	5.81
Nov-10	25-Nov-2010	5886.90	5862.70	5.01
Dec-10	30-Dec-2010	6162.55	6134.50	6.17
Jan-11	27-Jan-2011	5523.55	5505.90	4.87
Feb-11	24-Feb-2011	5338.00	5333.25	1.05
Mar-11	31-Mar-2011	5824.20	5833.75	8.17
Apr-11	28-Apr-2011	5753.80	5749.50	1.01
May-11	26-May-2011	5554.90	5560.15	-1.15
Jun-11	30-Jun-2011	5644.10	5647.40	2.69
Jul-11	28-Jul-2011	5488.05	5482.00	1.49
Aug-11	25-Aug-2011	5003.00	5001.00	0.49
Sep-11	29-Sep-2011	4934.30	4943.25	-2.65

Source: NSE
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

Implied Volatility

Volatility is one of the important factors that are taken into account while pricing options. It is a measure of the amount and the speed of price change. To estimate the 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 the implied volatility by entering all the 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. The reverse of this model could be used to arrive at the implied volatility by putting the current price of the option prevailing in the market.

To put it simply, implied volatility is the estimate of how volatile the underlying will be from the present until the expiry of the option. If the volatility is high, then the options premiums are relatively expensive, and vice versa. However, the implied volatility estimate can be biased, especially if they are based on options that are thinly traded samples.

Settlement

All derivative contracts are currently cash settled. In 2010–2011, the cash settlement amounted to ₹ 837,009 million, compared to ₹ 7,69,428 million in 2009–2010. During the first half of 2011–2012, the cash settlement amounted to ₹ 376,083 million. The detail of the settlement statistics in the F&O segment is presented in Table 6-8.

Table 6-8: Settlement Statistics in F&O Segment

Month/Year	Index/Stock Futures		Index/Stock Options		Total (₹ mn)	Total (US $ mn)
	MTM Settlement	Final Settlement	Premium Settlement	Exercise Settlement		
2006-07	**613,137**	**7,975**	**31,944**	**11,888**	**664,945**	**15,255**
2007-08	**1,446,547**	**13,121**	**67,602**	**37,923**	**1,565,193**	**39,159**
2008-09	**751,936**	**14,983**	**109,605**	**41,876**	**918,400**	**18,026**
2009-10	**606,557**	**13,953**	**110,110**	**38,808**	**769,428**	**17,045**
Apr-10	32,951	831	7,950	1,050	42,781	952
May-10	70,623	2,035	10,373	1,521	84,551	1,882
Jun-10	51,166	477	9,448	2,005	63,096	1,405
Jul-10	33,815	569	7,959	1,329	43,672	972
Aug-10	34,664	492	9,323	1,272	45,751	1,019
Sep-10	41,754	1,050	16,231	3,145	62,180	1,384
Oct-10	66,846	1,820	11,237	1,628	81,531	1,826
Nov-10	101,700	1,910	10,529	1,832	115,971	2,597
Dec-10	72,424	770	10,118	2,237	85,549	1,916
Jan-11	64,580	1,601	10,742	1,654	78,577	1,760
Feb-11	62,029	3,590	12,470	1,517	79,607	1,783
Mar-11	40,327	760	10,655	2,000	53,742	1,204
2010-11	**672,879**	**15,906**	**127,034**	**21,189**	**837,009**	**18,746**
Apr-11	35,037	1,036	8,727	562	45,362	927
May-11	54,501	1,263	9,320	767	65,852	1,346
Jun-11	38,700	695	10,100	1,493	50,988	1,042
Jul-11	40,082	1,518	8,825	612	51,036	1,043
Aug-11	75,436	1,017	14,796	2,338	93,587	1,913
Sep-11	55,355	1,512	11,222	1,170	69,259	1,416
Apr-Sep 2011	**299,111**	**7,041**	**62,990**	**6,942**	**376,083**	**7,687**

Source: NSE

Business Growth in Currency Futures Segment

After an impressive start in the latter half of 2008, the currency futures on the NSE witnessed an exponential growth in 2009–2010 and continued to flourish in 2010–2011. Table 6-9 presents the growth in the currency futures volumes on the NSE. The number of traded contracts and the trading value in this segment increased by more than 80 percent each in 2010–2011, compared to the figures in 2009–2010. Similarly, the trading volumes in the currency futures segment grew by 15.24 percent in the first half of 2011–2012 compared to the volumes in the corresponding period in 2010–2011. The average daily trading volume zoomed to ₹ 131,687 million in 2010–2011 compared to ₹ 74,275 million in 2009–10. During April 2011–September 2012, the average daily trading volume increased to ₹ 166,356 million.

Table 6-9: Business Growth of Currency Futures

Month/Year	USDINR		EURINR		JPYINR		GBPINR		Total	
	No. of Contracts	Traded Value (Notional) in ₹ mn	No. of Contracts	Traded Value (Notional) in ₹ mn	No. of Contracts	Traded Value (Notional) in ₹ mn	No. of Contracts	Traded Value (Notional) in ₹ mn	No. of Contracts	Traded Value (Notional) in ₹ mn
2009-10	**372,495,580**	**17,443,161**	**5,709,979**	**358,783**	**199,419**	**9,991**	**202,005**	**14,146**	**378,606,983**	**17,826,080**
Apr-10	75,411,437	3,359,080	1,608,481	95,989	9,786	467	55,463	3,786	77,085,167	3,459,322
May-10	75,021,152	3,438,519	2,591,211	149,680	17,842	903	114,665	7,696	77,744,870	3,596,799
Jun-10	68,341,107	3,187,766	1,371,201	78,212	46,094	2,383	79,131	5,465	69,837,533	3,273,825
Jul-10	43,199,013	2,028,844	1,538,240	92,370	62,361	3,343	125,240	8,977	44,924,854	2,133,534
Aug-10	41,273,073	1,929,224	1,190,935	71,785	79,854	4,379	95,776	7,003	42,639,638	2,012,391
Sep-10	60,535,055	2,783,444	748,696	45,116	191,847	10,522	110,876	7,959	61,586,474	2,847,041
Oct-10	66,599,641	2,968,742	775,026	47,934	255,619	13,903	163,576	11,556	67,793,862	3,042,135
Nov-10	53,832,252	2,433,482	961,905	59,270	296,716	16,240	305,838	22,019	55,396,711	2,531,010
Dec-10	47,472,342	2,151,013	831,113	49,794	331,982	18,076	235,985	16,670	48,871,422	2,235,554
Jan-11	52,705,761	2,401,616	1,355,334	82,355	308,048	16,985	343,667	24,653	54,712,810	2,525,609
Feb-11	45,724,720	2,083,416	943,535	58,681	308,773	17,073	317,549	23,360	47,294,577	2,182,530
Mar-11	61,562,749	2,779,528	1,411,193	89,283	846,262	46,895	473,806	34,566	64,294,010	2,950,271
2010-11	**691,678,302**	**31,544,673**	**15,326,870**	**920,467**	**2,755,184**	**151,171**	**2,421,572**	**173,710**	**712,181,928**	**32,790,021**
Apr-11	53,637,776	2,387,905	1,332,198	85,891	284,288	15,183	309,810	22,612	55,564,072	2,511,591
May-11	68,935,958	3,106,858	2,092,978	135,159	351,894	19,544	494,024	36,362	71,874,854	3,297,923
Jun-11	68,134,350	3,066,603	2,269,836	146,688	479,438	26,799	808,609	58,869	71,692,233	3,298,959
Jul-11	80,600,204	3,589,413	3,177,833	201,919	605,859	34,151	1,000,031	71,856	85,383,927	3,897,340
Aug-11	83,392,911	3,774,532	2,673,585	172,868	1,102,179	63,910	771,415	57,079	87,940,090	4,068,389
Sep-11	57,659,635	2,772,477	976,038	63,895	443,659	27803	323,613	24,300	59,402,945	2,888,475
Apr-Sep 2011	**412,360,834**	**18,697,789**	**12,522,468**	**806,420**	**3,267,317**	**187,389**	**3,707,502**	**271,079**	**431,858,121**	**19,962,677**

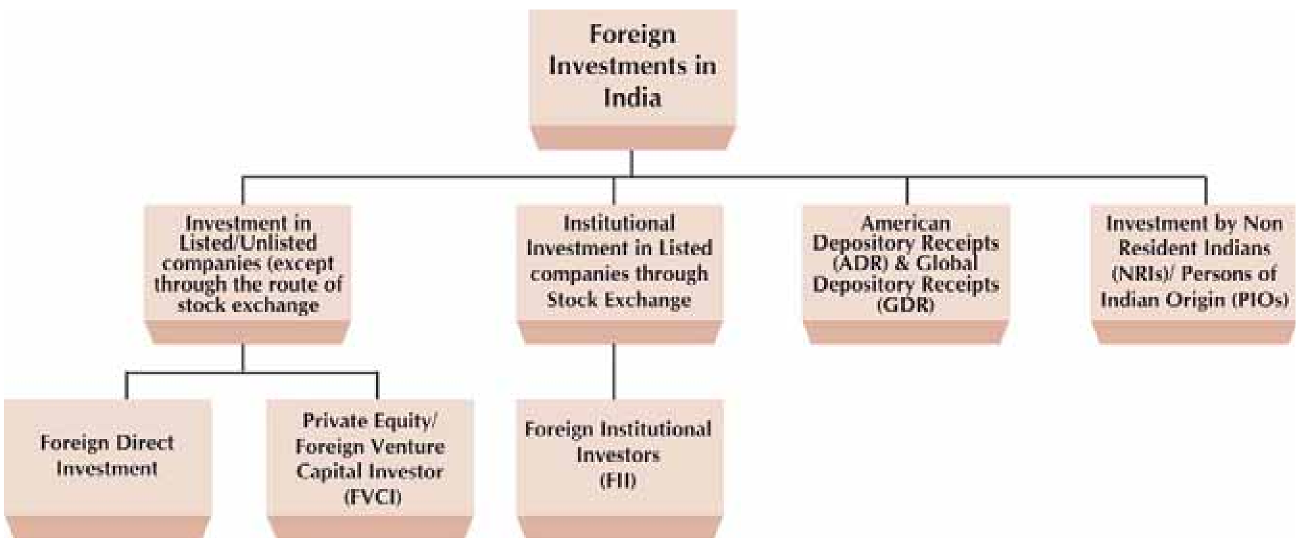
Note:
Currency Futures on Additional Currency Pairs were introduced w.e.f February 01, 2010. (New currency pairs EUR-INR, GBP-INR and JPY-INR futures contracts)

7. Foreign Investments in India

Introduction

Foreign investments in the country can take the form of investments in listed companies (i.e., FII investments), investments in listed/unlisted companies other than through stock exchanges (i.e., through the foreign direct investment or private equity/foreign venture capital investment route), investments through American Depository Receipts/Global Depository Receipts (ADR/GDR), or investments by non-resident Indians (NRIs) and Persons of Indian Origin (PIOs) in various forms (Chart 7-1).

Chart 7-1: Foreign Investments 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 reforms 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

[1] Source: Report of Expert Group on Encouraging FII flows and Checking the Vulnerability of Capital Markets to Speculative Flows, November, 2005.

recommended, inter alia, a compositional shift in capital flows away from debt to non-debt creating flows, the strict regulation of external commercial borrowings, especially short-term debt, the discouragement of volatile elements of flows from non-resident Indians (NRIs), the gradual liberalization of outflows, and the disintermediation of the 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, FIIs and overseas corporate bodies (OCBs) were permitted to invest in financial instruments, with suitable restrictions.[2] The policy framework for permitting FII investment was provided under the Government of India's guidelines, vide a press note dated September 14, 1992, which enjoined upon FIIs to obtain an initial registration with the SEBI and also the RBI's general permission under the FERA. Both the SEBI's registration and the RBI's general permissions under the FERA were to hold good for five years, and were to be renewed after that period. The RBI's general permissions under the FERA would enable the registered FII to buy, sell, and realize capital gains on investments made through an initial corpus remitted to India, to invest on all recognized stock exchanges through a designated bank branch, and to appoint domestic custodians for the investments held. The government guidelines of 1992 also provided the eligibility conditions for registration, such as track record, professional competence, financial soundness, and other relevant criteria, including registration with a regulatory organization 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 through a clause that was added to the effect that the investment by FIIs should also be subject to government guidelines. This linkage has allowed the government to indicate various investment limits, including those in specific sectors. With the Foreign Exchange Management Act (FEMA), 1999 coming into force 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 the RBI. A philosophy of preference for institutional funds and the prohibition of portfolio investments by foreign natural persons have been followed, except in the case of non-resident Indians, where direct participation by individuals takes place. Right 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 that were listed or were to be listed on the stock exchanges in India and in schemes floated by domestic mutual funds.

The historical evolution of the FII policy is summarized below:

	Policy Changes
September 1992	FIIs allowed to invest by the government guidelines in all securities in primary and secondary markets as well as in schemes floated by mutual funds. Single FIIs to invest 5 percent and all FIIs allowed to invest 24 percent of a company's issued capital. Broad-based funds to have 50 investors with no one holding more than 5 percent. The objective was to have reputed foreign investors, such as pension funds, mutual funds, or investment trusts and other broad-based institutional investors in the capital market.
April 1997	Aggregated limit for all FIIs increased to 30 percent, 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 US $ 1 billion was assigned, which was increased to US $ 1.75 billion in 2004.
June 1998	Aggregate portfolio investment limit of FIIs and NRIs/PIOs/OCBs enhanced from 5 percent to 10 percent, and the ceilings made mutually exclusive. Common ceilings would have negated the permission granted to FIIs. Therefore, separate ceilings were prescribed.
June 1998	Forward cover allowed in equity.

[2] An OCB is a company, partnership firm, society, or any other corporate body that is owned directly or indirectly to the extent of at least 60 percent by NRIs, and includes an overseas trust in which not less than 60 percent beneficial interest is held by NRIs either directly or indirectly, but irrevocably.

	Policy Changes
February 2000	Foreign firms and high networth 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 to give access to domestic asset management capability.
March 2001	FII ceiling under special procedure enhanced to 49 percent. The objective was to increase FII participation.
September 2001	FII ceiling under special procedure raised to sectoral cap.
December 2003	The FII dual approval process of the SEBI and the RBI changed to a single approval process of the SEBI. The objective was to streamline the registration process and reduce the time taken for registration.
November 2004	Outstanding corporate debt limit of US $ 0.5 billion prescribed. The objective was to limit short-term debt flows.
April 2006	Outstanding corporate debt limit increased to US $ 1.5 billion. The limit on investment in government securities was enhanced to US $ 2 billion. This was announced in the Budget of 2006–2007.
November, 2006	FII investment upto 23percent permitted in market infrastructure institutions in the securities markets, such as stock exchanges, depositories, and clearing corporations. This was a decision taken by the government following the mandating of demutualization and corporatization of stock exchanges.
January and October, 2007	FIIs allowed to invest US $ 3.2 billion in government securities (limits were raised from US $ 2 billion in two phases of US $ 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 from US $ 1.5 billion to US $ 3 billion for FII investments in government securities and corporate debt, respectively.
October 2008	While reviewing the External Commercial Borrowing policy, the government increased the cumulative debt investment limits from US $ 3 billion to US $ 6 billion for FII investments in corporate debt.
October 2008	Removal of regulation for FIIs pertaining to the restriction of a 70:30 ratio of investment in equity and debt, respectively.
October 2008	Removal of restrictions on Overseas Derivatives Instruments (ODIs).
March 2009	Disapproval of FIIs lending shares abroad.
	E-bids platform for FIIs.
August 2009	FIIs allowed to participate in interest rate futures.
April 2010	FIIs allowed to offer domestic government securities and foreign sovereign securities with AAA rating as collateral (in addition to cash) to recognized stock exchanges in India for their transactions in the cash segment of the market.
November 2010	Investment cap for FIIs increased by US $ 5 billion each in government securities and corporate bonds to US $ 10 billion and US $ 20 billion, respectively.
March 2011	The limit of US $ 5 billion in corporate bonds issued by companies in the infrastructure sector with a residual maturity of over five years increased by an additional limit of US $ 20 billion, taking the total limit to US $ 25 billion

As is evident from the above summary, the evolution of the FII policy in India has displayed a steady and cautious approach to the liberalization of a system of quantitative restrictions (QRs). The policy liberalization has taken the form of (i) the relaxation of investment limits for FIIs; (ii) the relaxation of the eligibility conditions; and (iii) the liberalization of the investment instruments accessible to FIIs.

Policy Developments

I. Allocation of government debt & corporate debt investment limits to FIIs

The SEBI (vide its circular dated November 26, 2010) made the following decisions:

a) Increased investment limit for FIIs in government and corporate debt: In an attempt to enhance FII investment in debt securities, the government has increased the current limit of Fll investment in government securities by US $ 5 billion, raising the cap to US $ 10 billion. Similarly, the current limit of Fll investment in corporate bonds has also been increased by US $ 5 billion, raising the cap to US $ 20 billion. This incremental limit shall be invested in corporate bonds with a residual maturity of over five years issued by companies in the infrastructure sector. The market regulator SEBI announced this vide its circular dated November 26, 2010.

b) The time period for the utilization of the debt limits: In July 2008, some changes pertaining to the methodology for the allocation of the debt limit had been specified. In continuation of the same, the SEBI has decided that the time period for the utilization of the corporate debt limits allocated through the bidding process (for both old and long-term infra limit) shall be 90 days. However, the time period for the utilization of the government debt limits allocated through the bidding process shall remain 45 days. Moreover, the time period for the utilization of the corporate debt limits allocated through the first-come, first-served process shall be 22 working days, while that for the government debt limits shall remain unchanged at 11 working days. Further, it was decided to grant a period of up to 15 working days for the replacement of the disposed off/matured debt instruments/positions for corporate debt, while the period for government debt will continue to be five working days.

c) Government debt long terms: The SEBI, vide its circular dated February 2009, had decided that no single entity shall be allocated more than ₹ 10,000 crore of the investment limit. In a partial amendment to this, the SEBI (vide its circular dated November 26, 2010) has decided that no single entity shall be allocated more than ₹ 2000 crore of the investment limit. Where a singly entity bids on behalf of multiple entities, such bids would be limited to ₹ 2,000 crore for every such single entity. Further, the minimum amount that can be bid for shall be ₹ 200 crore, and the minimum tick size has been made ₹ 100 crore.

d) Corporate debt (Old limit): The SEBI has decided that no single entity shall be allocated more than ₹ 600 crore of the investment limit. Where a singly entity bids on behalf of multiple entities, such bids would be limited to ₹ 600 crore for every such single entity. Further, the minimum amount that can be bid for has been made ₹ 100 crore, and the minimum tick size has been made ₹ 50 crore.

e) Multiple bid orders from a single entity: The SEBI has allowed bidders to bid for more than one entity in the bidding process provided:

- It provides due authorization from those entities to act in that capacity;
- It provides the stock exchanges with the allocation of the limits interse for the entities it has bid for to exchange within 15 minutes of the close of the bidding session.

f) FII investment into debt securities that are to be listed: The market regulator has decided that FIIs will be allowed to invest in primary debt issues only if the listing is committed to be done within 15 days. If the debt issue could not be listed within 15 days of issue, then the holding of the FIIs/sub-accounts—if disposed off—shall be sold only to domestic participants/investors until the securities are listed. This is in contrast to the earlier regulations issued in April 2006, wherein FII investments were restricted to the listed debt securities of companies.

II. Maintenance of Collateral by FIIs for Transactions in the Cash Segment

The RBI in consultation with the Government of India and the SEBI has decided (vide its circular dated April 12, 2010) to permit FIIs to offer domestic government securities and foreign sovereign securities with AAA rating as collateral to the recognized stock exchanges in India, in addition to cash, for their transactions in the cash segment of the market.

III. Reporting of Lending of Securities bought in the Indian Market

The SEBI (vide its circular dated June 29, 2010) has decided that the FIIs' reporting of the lending of securities bought in the Indian market will be done on a weekly basis instead of the former practice of daily submissions. In accordance with this change in the periodicity of the reports, FIIs are required to submit the reports every Friday, with effect from July 02, 2010. Further, in view of the change in the periodicity of the reporting, the PN issuing the FIIs are required to submit the undertaking along with the weekly report.

IV. FII participation in Interest Rate Futures

The FIIs have been allowed to participate in the interest rate futures that were introduced for trading at the NSE on August 31, 2009.

V. FII Investment in Corporate Bonds Infra Long-term Category

This policy development has been discussed in Chapter 5 in the context of debt markets.

Market Design: FIIs

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 that is established or incorporated outside India and proposes 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 who proposes to make investments in India on behalf of broad-based funds and its proprietary funds, if any; v. University funds, endowments, foundations, charitable trusts, or charitable societies. Broad-based fund means a fund that is established or incorporated outside India, which has at least 20 investors with no single individual investor holding more than 49 percent of the shares or units of the fund. If the broad-based fund has institutional investor(s), then it is not necessary for the fund to have 20 investors. Further, if the broad-based fund has an institutional investor who holds more than 49 percent of the shares or units in the fund, then the institutional investor must itself be a broad-based fund. Sub-account refers to any person who is resident outside India on whose behalf investments are proposed to be made in India by a foreign institutional investor, and who is registered as a sub-account under the SEBI (FII) Regulations, 1995. The applicant for a sub-account can fall into any of the following categories: i Broad-based fund or portfolio that is broad-based, incorporated, or established outside India. ii Proprietary fund of a registered foreign institutional investor. iii Foreign individual who has a networth of not less than US $ 50 million, holds a valid passport of a foreign country for a period of at least five years, holds a certificate of good standing from a bank, and is the client of the FII for a period of at least three years iv Foreign corporate that has its securities listed on a stock exchange outside India, having an asset base of not less than US $ 2 billion and having an average net profit of not less than US $ 50 million during the three fianancial years preceding the date of application. A non-resident Indian shall not be eligible to invest as a sub-account.

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 recognized stock exchange in India ii. Units of schemes floated by domestic mutual funds including the Unit Trust of India, whether listed or not listed on a recognized stock exchange, or units of schemes floated by a Collective Investment Scheme iii. Dated government securities iv. Derivatives traded on a recognized stock exchange v. Commercial papers vi. Security receipts vii. Indian Depository Receipts In case a foreign institutional investor or a 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 the initial public offering and the listing thereof, such shares would be subject to a lock-in for the same period, if any is applicable to the shares held by a foreign direct investor placed in a similar position, under the policy of the central government relating to foreign direct investment that is currently 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 an FII in India, whether on its own account or on account of its sub-accounts, should not be less than 70 percent of the aggregate of all the investments of the FII in India, made on its own account and on account of its sub-accounts. However, this is not applicable to any investment of the FII either on its own account or on behalf of its sub-accounts in debt securities that 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, the SEBI, while granting approval for the investments, may impose such conditions as are necessary with respect to the maximum amount that can be invested in the debt securities by the FII on its own account or through its sub-accounts. A foreign corporate or individual shall not be eligible to invest through the 100 percent debt route. Investments made by FIIs in security receipts issued by securitization companies or asset reconstruction companies under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 are not eligible for the investment limits mentioned above. No FII can invest in security receipts on behalf of its sub-accounts. **FII Investment in secondary markets:** The 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 recognized stock exchange. Further, in December 2007, the SEBI permitted FIIs and sub-accounts to enter into short selling transactions only in accordance with the framework specified by SEBI. No transaction on the stock exchange can be carried forward and the transaction in securities would be only through a stock broker who has been granted a certificate by SEBI. They have also been allowed to lend or borrow securities in accordance with the framework specified by the SEBI in this regard. The purchase of equity shares of each company by a, FII investing on its own account should not exceed 10 percent of the total issued capital of that company. For an FII investing in

	equity shares of a company on behalf of its sub-accounts, the investment on behalf of each such sub-account should not exceed 10 percent of the total issued capital of that company. In the case of foreign corporates or individuals, each of such sub-accounts should not invest more than five percent of the total issued capital of the company in which such investments are made. A foreign institutional investor can issue or otherwise deal in offshore derivative instruments, directly or indirectly, wherein the offshore derivative instruments are issued only to those 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 the appointment of domestic custodians, designated bank, investment advice in publicly accessible media, etc. have been laid down on the FIIs operating in the country as part of the SEBI (FII) Regulations, 1995.
Private Placement with FIIs	The SEBI-registered FIIs have been permitted to purchase shares/convertible debentures of an Indian company through offer/private placement, subject to a ceiling of 10 percent of the paid-up capital of the Indian company for individual FIIs/sub-accounts, and 24 percent for all FIIs/sub-accounts put together. An Indian company is permitted to issue such shares provided that: i In the case of a public offer, the price of shares to be issued is not less than the price at which the 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 the SEBI guidelines or the guidelines issued by the erstwhile Controller of Capital issues as applicable. Purchases can also be made of partially convertible debentures, fully convertible debentures, and 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 the total inward remittance of liquidated investment. Rebooking of cancelled forward contracts is allowed up to a limit of 2 percent 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 on the 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) the total forward contracts outstanding does not exceed the market value of portfolio, and (ii) the forward contracts permitted to be rebooked does not exceed 2 percent of the market value as determined at the beginning of the financial year. The monitoring of the forward cover is to be done on a fortnightly basis.
FII Position Limits In Derivatives Contracts	The 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 the SEBI from time to time. These have been listed out in Chapter 7. The clearing corporation monitors the open positions of the FII/sub-accounts of the FII for each underlying security and index, against the position limits specified at the level of the FII/sub-accounts of the 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, as reported by the custodian/designated AD banks on a daily basis in Forms LEC (FII). **Caution List** When the total holdings of FIIs under the scheme reach the limit of 2 percent below the sectoral cap, the RBI issues a notice to all designated branches of the AD Category-I banks cautioning that any further purchases of shares of the particular Indian company will

	require prior approval of the RBI. The RBI gives case-by-case approvals to FIIs for the purchase of shares of companies included in the Caution List. This is done on a first-come, first-served basis. **Ban List** Once the shareholding by FIIs reaches the overall ceiling/sectoral cap/statutory limit, the RBI places the company in 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	The SEBI-registered FIIs/sub-accounts are allowed to keep with the trading member/clearing member an amount that is sufficient to cover the margins prescribed by the exchange/clearing house as well as such amounts as may be considered to meet the immediate needs.
Reporting of FII Investments	An FII may invest in a particular share issue of an Indian company under either the FDI scheme or the Portfolio Investment Scheme. The AD Category-I banks have to ensure that the FIIs who are purchasing the shares by debit to the Special Non-Resident Rupee Account report these details separately in the Form LEC (FII).

Investment by FIIs under Portfolio Investment Scheme

The RBI has given general permission to SEBI-registered FIIs/sub-accounts to invest under the Portfolio Investment Scheme (PIS).

- The total holding of each FII/sub-account under this scheme should not exceed 10 percent of the total paid-up capital or 10 percent of the paid-up value of each series of convertible debentures issued by the Indian company.
- The total holding of all the FIIs/sub-accounts put together should not exceed 24 percent of the paid-up capital or the paid-up value of each series of convertible debentures. This limit of 24 percent 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 the SEBI as an FII for managing the funds of a sub-account can make investments under the scheme on behalf of:
  - A person resident outside India who is a citizen of a foreign state; or
  - A corporate body registered outside India.
- However, such investment should be made out of the funds raised, collected, or brought from outside through a normal banking channel. The investments by such entities should not exceed 5 percent of the total paid-up equity capital or 5 percent 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

The monthly trend in FII investments in 2010–2011 (depicted in Table 7-1) shows that the net FII investments were negative for certain months such as May 2010 and February 2011, in contrast to 2009–2010 in which the net FII inflows were positive for the entire fiscal year. In September 2010, the net investment of ₹ 326,680 million by FIIs was the highest monthly net investment in 2010–2011. The total net investment by FIIs in 2010–2011 stood at US $ 32,226 million, and it dried up in the first half of 2011–2012 at US $ 2,042 million with August 2011 registering the highest net outflow of US $ 1,766 million.

Table 7-1: Trends in FII Investment

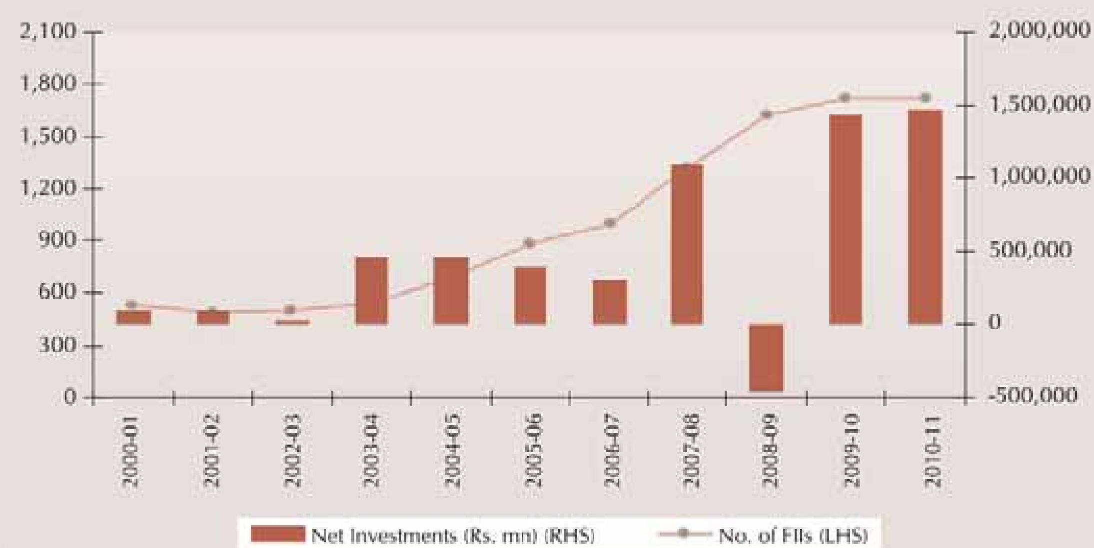
Period	Purchases (₹ mn.)	Sales (₹ mn.)	Net Investment (₹ mn.)	Net Investment (US $ mn.)	Cumulative Net Investment (US $ mn.)
2000-01	**740,506**	**641,164**	**99,342**	**2,159**	**13,396**
2001-02	**499,199**	**411,650**	**87,549**	**1,846**	**15,242**
2002-03	**470,601**	**443,710**	**26,891**	**562**	**15,804**
2003-04	**1,448,575**	**990,940**	**457,635**	**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**	**45,261**
2006-07	**5,205,090**	**4,896,680**	**308,410**	**6,709**	**51,967**
2007-08	**9,480,196**	**8,389,304**	**1,090,892**	**16,040**	**68,006**
2008-09	**6,145,810**	**6,603,920**	**-458,110**	**-11,356**	**56,650**
2009-10	**8,464,400**	**7,037,810**	**1,426,580**	**30,253**	**89,333**
2010-11	**9,925,990**	**8,461,610**	**1,464,380**	**32,226**	**121,561**
Apr-11	767,320	695,360	71,960	1,616	123,175
May-11	770,460	813,220	-42,760	-948	122,227
Jun-11	806,240	757,410	48,830	1,083	123,310
Jul-11	772,180	665,660	106,530	2,399	125,709
Aug-11	695,900	774,930	-79,030	-1,766	123,943
Sep-11	648,680	667,350	-18,660	-342	123,600
Apr-Sep 2011	**4,460,790**	**4,373,930**	**86,880**	**2,042**	**123,600**

Source: SEBI
Note: This data pertains to the investments by FIIs in Indian securities market including private placement and mergers & acquisitions

Number of Foreign Institutional Investors (FIIs)

The net addition in the SEBI-registered FIIs failed to keep up the momentum that was seen in 2007–2008 and 2008–2009, where 322 and 316 FIIs, respectively, were added. There was a net addition of only nine SEBI-registered FIIs in 2010–2011, which took their total number to 1,722 at the end of March 2011, compared to that of 1,713 at the end of March 2010 (Chart 7-2).

Chart 7-2: Number of FIIs and Net Investments



Source: SEBI

Foreign Institutional Investments—Equity and Debt

The FIIs were allowed to invest in the Indian capital market from September 1992. The investments by them, however, were first made in January 1993. Until December 1998, the investments were related to equity only, as the Indian gilts market opened up for FII investment in April 1998. The FIIs' investment in debt started from January 1999. The FIIs continued to invest large funds in the Indian securities market. For two consecutive years (2004–2005 and 2005–2006), the net investment in equity showed a year-on-year increase of 10 percent.

Table 7-2: Net Investments by FIIs in Equity and Debt

Year	FIIs	
	Net Investment in Equity (₹ mn)	Net Investment in Debt (₹ mn)
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**
2007-08	**534,038**	**127,753**
2008-09	**-477,070**	**18,950**
2009-10	**1,102,200**	**324,380**
Apr-10	93,610	30,320
May-10	-94,370	24,510
Jun-10	105,080	7410
Jul-10	166,170	81,070
Aug-10	116,880	29,990
Sep-10	249,790	76,900
Oct-10	285,629	-42,603
Nov-10	182,931	29,176
Dec-10	20,496	11,642
Jan-11	-48,132	101,767
Feb-11	-45,855	13,157
Mar-11	68,978	-149
2010-11	**1,101,207**	**363,190**
Apr-11	72,130	-170
May-11	-66,140	23,380
Jun-11	45,720	3,110
Jul-11	80,300	26,230
Aug-11	-108,340	29,310
Sep-11	-1,580	-17,070
Apr-Sep 2011	**22,090**	**64,790**

Source: SEBI

After experiencing a record equity investment of ₹ 1,102,200 million in 2009–2010, the net inflow of investments by FIIs remained flat at ₹ 1,101,207 million in 2010–2011. The momentum seemed to be sluggish in the first half of 2011–2012; as the net FII investments in equities during the period amounted to ₹ 22,090, compared to the net investments of ₹ 637,160 million attracted in the first half of 2010-2011 (Table 7-2).

The net investments by FIIs in the debt segment grew by 11.96 percent in 2010–2011 with a staggering all-time high of ₹ 363,190 million, compared to ₹ 324,380 in 2009–2010. The impressive trend has come to a halt; during April–September, 2011, the FIIs made net investments worth ₹ 64,790 million in debts compared to ₹ 250,200 million in the first half of 2010–2011.

Foreign Institutional Investments in Equity and Derivatives

Equity Market Segment

The gross turnover of FIIs in the equity market segment on the Indian stock exchanges (the NSE and the BSE) accounted for ₹ 14,330,091 million in 2010–2011, which marked a year-on-year growth of 12.39 percent. The total turnover of the FIIs in the equity market constituted 15.30 percent of the total turnover on the BSE and the NSE in 2010–2011, an improvement from 11.56 percent recorded in 2009–2010 (Table 7-3).

Table 7-3: FII Turnover in Equity Market Segment of NSE and BSE

Year	Buy Value (₹ mn)	Sell Value (₹ mn)	Gross Turnover of FIIs (₹ mn)	Total Turnover on Exchanges (₹ mn)	%age of FII turnover to Total Turnover on Exchanges
2006-07	4,550,232	4,595,466	9,145,698	57,946,240	15.78
2007-08	8,329,655	8,705,790	17,035,445	102,515,340	16.62
2008-09	5,396,976	6,129,276	11,526,252	77,037,880	14.96
2009-10	6,568,931	6,181,265	12,750,197	110,336,640	11.56
2010-11	7,715,649	6,614,442	14,330,091	93,648,740	15.30
Apr-Sep 2011	3,184,977	3,165,991	6,350,968	34,811,820	18.24

Source: SEBI

Derivative Market Segment

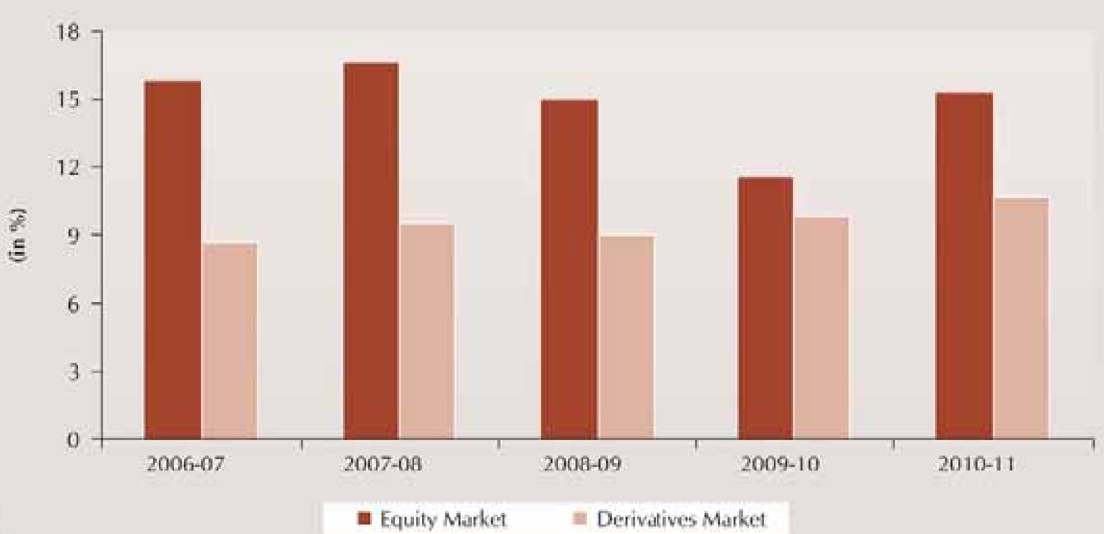
The FII gross turnover in the F&O Segment of the NSE in 2010–2011 was ₹ 62,371,926 million, which was 10.66 percent of the turnover of the derivatives market (₹ 292,482,211 million) at the NSE. The share of the FIIs' gross turnover increased to 11.73 percent of the derivatives turnover on the NSE during the first half of 2011–2012 (Table 7-4).

Table 7-4: FII Turnover in F&O Market Segment of NSE

	Buy Value (₹ mn)		Sell Value (₹ mn)		Gross No. of contracts traded	Gross Turnover of FIIs	F&O Turnover on NSE (₹ mn)	%age of FII turnover to Total Turnover on Exchanges
	No. of contracts	Amount (₹ mn)	No. of contracts	Amount (₹ mn)		Amount (₹ mn)		
2006-07	20,215,981	6,484,665	19,659,868	6,360,392	39,875,849	12,845,058	73,562,420	8.73
2007-08	47,880,785	12,633,510	46,078,979	12,401,616	93,959,764	25,035,126	130,904,779	9.56
2008-09	58,338,152	10,165,351	55,464,681	9,680,224	113,802,833	19,845,575	110,104,822	9.01
2009-10	68,934,646	17,519,697	67,561,143	17,252,480	136,495,789	34,772,177	176,636,647	9.84
2010-11	114,061,171	31,853,782	108,896,036	30,518,144	222,957,207	62,371,926	292,482,211	10.66
Apr-Sep 2011	71,531,263	18,731,825	69,416,878	18,243,194	140,948,141	36,975,019	157,585,925	11.73

Source : SEBI, NSE
Note : Here the data for FII turnover is only the data of NSE which is reported to SEBI

Chart 7-3: Percentage of FII Turnover in Equity and Derivative Segments of Stock Exchanges



Source: NSE
Note: The data for FII turnover presented here is based solely on the data of the NSE that is reported to the SEBI.

Offshore Derivative Instruments (ODIs)

Offshore derivative instruments include participatory notes, equity-linked notes, capped return notes, investment notes, and similar instruments issued by FIIs/sub-accounts outside India against their underlying investments in India, that are listed or are proposed to be listed on any stock exchange in India.

Participatory Notes (PNs)

Participatory notes are the most common type of ODIs. The PNs are instruments used by foreign funds that are not registered in the country for trading in the domestic market. They are a derivative instrument issued against an underlying security that permits the holder to share in the capital appreciation and income from the underlying security.

As of March 2011, the total value of PNs with underlying Indian securities as a percentage of Assets Under Management (AUM) of FIIs has further deteriorated to 15.82 percent from 17.72 percent in March 2009 and 16.10 percent in March 2010. Table 7-5 shows the total value of the participatory notes versus the assets under management of FIIs from March 2004 onwards.

Table 7-5: Total Value of Participatory Notes (PNs) vs. Assets Under Management of FIIs (in ₹ mn)

Month	*Total Value of P-Notes with underlying Indian securities (A)	#Assets Under Management of FIIs (B)	A as % of B
Mar-04	**318,750**	**1,593,970**	**20.00**
Mar-05	**591,320**	**2,362,570**	**25.03**
Mar-06	**1,548,630**	**4,536,360**	**34.14**
Mar-07	**2,428,390**	**5,470,100**	**44.39**
Mar-08	**2,508,520**	**7,367,530**	**34.05**
Mar-09	**694,450**	**3,919,540**	**17.72**
Mar-10	**1,450,370**	**9,008,690**	**16.10**
Apr-10	1,543,400	9,271,940	16.65
May-10	1,599,270	8,833,790	18.10
Jun-10	1,680,160	9,274,680	18.12
Jul-10	1,657,490	9,710,220	17.07
Aug-10	1,636,570	9,991,300	16.38
Sep-10	2,009,270	11,243,520	17.87
Oct-10	1,820,560	11,513,390	15.81
Nov-10	1,883,250	11,367,540	16.57
Dec-10	1,755,840	11,646,230	15.08
Jan-11	1,744,850	10,574,740	16.50
Feb-11	1,716,010	10,168,920	16.88
Mar-11	**1,750,970**	**11,065,500**	**15.82**
Apr-11	1,664,440	11,067,180	15.04
May-11	2,111,990	10,819,960	19.52
Jun-11	1,532,910	10,863,880	14.11
Jul-11	1,504,140	10,770,960	13.96
Aug-11	1,522,880	9,858,930	15.45
Sep-11	**1,752,910**	**9,791,640**	**17.90**

Source: SEBI
**Figures compiled based on reports submitted by PN issuing FIIs*
#Figures compiled based on reports submitted by custodians

Share of FIIs in NSE-Listed Companies

The FII ownership of shares in the various sectors of NSE-listed companies is depicted in Table 7-6. At the end of March 2011, FIIs held the highest stake of 23.35 percent in the finance sector, followed by information technology and banking 21.16 percent and 17.62 percent, respectively). The total percentage of shares held by FIIs across different sectors was

10.32 percent of the total shares of the companies listed on the NSE as at the end of March 2011, which stood at 10.45 percent at the end of September 2011.

Table 7-6: Share of FIIs in different sectors of companies listed on NSE

Sectors	Percentage Share of Foreign institutional Investors at the end of					
	Mar-07	Mar-08	Mar-09	Mar-10	Mar-11	Sep-11
Banks	18.41	19.15	14.27	16.02	17.62	18.17
Engineering	11.45	10.63	7.34	8.28	9.36	9.30
Finance	18.18	17.44	13.01	16.53	23.35	19.20
FMCG	11.91	14.07	12.72	14.09	16.34	17.00
Information Technology	14.53	16.00	12.44	11.68	21.16	17.07
Infrastructure	7.15	8.86	7.31	8.90	7.87	7.50
Manufacturing	9.57	9.46	7.28	8.79	9.41	9.60
Media & Entertainment	15.20	11.71	11.42	7.06	10.97	11.63
Petrochemicals	5.83	4.73	4.77	6.08	6.52	6.49
Pharmaceuticals	11.17	10.69	7.88	8.78	10.19	10.13
Services	13.09	10.70	8.39	8.05	7.41	9.50
Telecommunication	11.17	9.12	6.85	8.64	8.44	8.46
Miscellaneous	8.19	9.30	8.39	8.10	13.65	13.37
Total stake of FIIs in all the Sectors	**10.78**	**10.62**	**8.40**	**9.58**	**10.32**	**10.45**

Source : NSE

Foreign Venture Capital

Venture capital plays a vital role in the development and growth of innovative entrepreneurships. Venture capital financing started in India in 1988, with the formation of the Technology Development and Information Company of India Ltd. (TDICI) promoted by ICICI and UTI Bank. At the same time, the Gujarat Venture Fund Limited and the Andhra Pradesh Industrial Development Corporation were started in the early nineties by state-level financial institutions. Thus, venture capital was initially the prerogative of development financial institutions. The mid nineties saw the rise of foreign venture capital funds, which focused on development capital without any sectoral focus and were dependant more on opportunities. After the success of these funds, a number of India-centric foreign VC firms emerged.

In the absence of an organized venture capital industry, individual investors and development financial institutions have hitherto played the role of venture capitalists in India. Entrepreneurs have largely depended on private placements, public offerings, and lending by financial institutions.

In 1973, a committee on the "Development of Small and Medium Enterprises" highlighted the need to foster venture capital as a source of funding for new entrepreneurs and technology. Later, a study was undertaken by the World Bank to examine the possibility of developing venture capital in the private sector, based on which the Government of India took a policy initiative and announced guidelines for venture capital funds (VCFs) in 1988. Thereafter, the Government of India issued guidelines in September 1995 for overseas venture capital investment in India. Further, as part of its mandate to regulate and develop the Indian securities markets, the SEBI under Section 12 of the SEBI Act, 1992 framed the SEBI (Venture Capital Funds) Regulations, 1996.

Pursuant to the regulatory framework, some domestic VCFs were registered with the SEBI. Some overseas investment has also come through the Mauritius route.

The SEBI committee on Venture Capital was set up in July 1999 to identify the impediments and to suggest suitable measures to facilitate the growth of VC activity in India. Keeping in view the need for a global perspective, it was decided to associate Indian entrepreneurs from the Silicon Valley in the committee headed by K. B. Chandrasekhar. These guidelines were further amended in April 2000 with the objective of fuelling the growth of VC activities in India. Thereafter, based on the recommendations of the K. B. Chandrasekhar Committee, which was set up by the SEBI in 1999–2000, the guidelines for Overseas Venture Capital Investment in India were withdrawn by the government in September 2000, and SEBI was made the nodal regulator for VCFs in order to provide a uniform, hassle free, single window regulatory framework. The SEBI also notified regulations for foreign venture capital investors. Like in the case of the foreign institutional investors (FIIs), foreign venture capital investors (FVCIs) were also to be registered with SEBI.

The Advisory Committee on Venture Capital, set up under Chairmanship of Dr. Ashok Lahiri, submitted its report to SEBI in 2003. It helped the SEBI in considering the amendments to the regulations that facilitated the further development of a vibrant venture capital industry in India. Thus, the various changes in the regulations for the FVCIs led to the growth in the registrations of FVCIs. Table 7-7 gives the count of FVCI registration from 2000–2001 onwards. As of March 2011, the number of FVCIs registered with the SEBI was 153.

Table 7-7: SEBI-Registered FVCIs in India

Year	FVCI at end of March	Net Additons in FVCIs during the year
2000-01	1	1
2001-02	2	1
2002-03	6	4
2003-04	9	3
2004-05	14	5
2005-06	39	25
2006-07	78	39
2007-08	97	19
2008-09	129	32
2009-10	143	14
2010-11	153	10

Source: SEBI

Market Design for Foreign Venture Capital Investor (FVCI)

Foreign Venture Capital Investors	Foreign Venture Capital Investor (FVCI) refers to an investor incorporated/established outside India who is registered under the SEBI (Foreign Venture Capital Investor) Regulations, 2000. A SEBI-registered FVCI, with specific approval from the RBI under the FEMA Regulations, can invest in Indian venture capital undertakings (IVCU), or Indian venture capital funds (IVCF), or in a scheme floated by such IVCFs, subject to the condition that the VCF should also be registered with the SEBI.

FVCI Investments	A registered FVCI may apply to the RBI (through the SEBI) for permission to invest in an IVCU or in a VCF or in a scheme floated by such VCFs. Permission may be granted by the RBI subject to such terms and conditions as are deemed necessary. The registered FVCIs permitted by the RBI can purchase equity/equity-linked instruments/debt/debt instruments, debentures of an IVCU or of a VCF through initial public offer or private placement in units of schemes/funds set up by a VCF. At the time of granting approval, the RBI permits the FVCI to open a foreign currency account and/or a rupee account with a designated branch of an AD Category-I bank. The permissible transactions are: (i) Crediting inward remittance received through normal banking channels or the sale proceeds (net of taxes) of investments; (ii) Making investments in accordance with the provisions stated by the regulations; (iii) Transferring funds from the foreign currency account of the FVCI to their own rupee account; (iv) Remitting funds from the foreign currency or rupee account subject to payment of applicable taxes; (v) Meeting local expenses of the FVCI.
Investment Conditions and Restrictions	An FVCI has to abide by the following conditions pertaining to investments made by it: i. It has to disclose the investment strategy to SEBI. ii. It can invest its total funds committed in one venture capital fund. iii. An FVCU should make investments as enumerated below: i) At least 66.67 percent 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 percent of the investible funds may be invested by way of • Subscription to an Initial Public Offer (IPO) of a venture capital undertaken (VCU) whose shares are proposed to be listed. • Debt or debt instrument of a VCU in which the FVCI 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. This condition should be achieved by the FVCI by the end of the life cycle. • It should disclose the duration of the life cycle of the fund. • Special purpose vehicles (SPVs) that are created by a venture capital fund for the purpose of facilitating or promoting investment in accordance with SEBI (FVCI) Regulations, 2000. The investment conditions and restrictions stipulated above should be achieved by the venture capital fund by the end of its life cycle. The venture capital fund should disclose the duration of life cycle of the fund.
General Obligations and Responsibilities	Certain general obligations and responsibilities relating to the maintenance of books and records, the power to call for information by the SEBI, the appointment of designated bank, etc. have been laid down on FVCIs by the SEBI (Foreign Venture Capital Investor) Regulations, 2000.

Risk Management	AD Category-I banks can offer forward cover to FVCIs to the extent of the total inward remittance. In case the FVCI has made any remittance by liquidating some investments, the original cost of the investments has to be deducted from the eligible cover to arrive at the actual cover that can be offered.
Valuation of Investments	The purchase/sale of shares, debentures, and units can be at a price that is mutually acceptable to the buyer and the seller.
Regulations for FVCI	The FVCIs are governed by the SEBI (Foreign Venture Capital Investor) Regulations, 2000, and the statutory provisions contained in the Foreign Exchange Management (Transfer or issue of security by a person resident outside India) Regulations, 2000, particularly in Schedule 6.

Private Equity

In India, the evolution of PE investments can be traced back to the formation of VC Funds in India. The PE has now entered the economic mainstream, and this segment has gained momentum particularly over the past few years. The concepts of VC and PE are very recent in India as compared to the situation in countries such as the USA, the UK, Europe, Israel, and so on, where they have been in existence for many years.

Market Design for Private Equity

Private Equity Players	**Private equity (PE) players** are established investment bankers who typically invest into proven/established businesses. The PE funds/players are among the largest sources of funding for enterprises that are relatively secure with an established track record requiring significantly large funds for expansion and growth. As such, they take reasonably well-defined risks, and their exit strategy is usually up to the stage when the company goes public or gets acquired at high value. The PE funds are generally seen to attract a huge amount of capital from investors, including pension funds, insurance funds, university foundations, and individuals. The PE investors can be domestic or foreign private equity firms. Domestic PE firms are either established as trusts, or set up as a company. All PE investments from outside the country are classified either as Foreign Institutional Investment (FII) for investments in listed companies or as Foreign Direct Investment (FDI) for investment in unlisted companies**.** If a PE investment takes place in an unlisted firm, it falls under India's FDI rules. A PE fund can also buy into listed companies. However, in order to do such investments, the PE fund has to become a registered FII.
Transactions by Private Equity	After registration as an FII, there are two kinds of transactions that can be entered into by a PE Firm: • **PIPE (Private Investment in Public Equity) Deals**: In this type of transaction, the company sells shares directly to the PE Fund. Under the FII category, the private investments in public equity (PIPEs) are large transactions contracted by the PE Fund. • **Ordinary secondary market transactions:** The PE fund buys shares on the secondary market. These are pure FII transactions. However, these two cases are differentiated by capital control.[3]

[3] The structure of PE is taken from Indian Financial Markets (Shah, Thomas, & Gorham, p. 46 and p. 215).

Exit strategies of PEs	There are various forms of exit from an investment by a private equity investor. These are: • **Direct sale** to investors seeking a shareholding in a firm acquired by the fund. The initial public offering (IPO) is a preferred exit option in developed PE markets. • **Post-purchase** listing of the company, permitting sale of equity through the stock market. • **Sale to** another private equity firm, referred to as a **secondary buyout**. • **Mergers and acquisitions**. As the Indian economy's growth has kept a steady pace, industry-wide consolidations are an attractive route for a PE investor to make an exit.
Regulations for Private Equity Investors	The important statutes that require complianwwce for private equity investment in India are the Companies Act, 1956, the Foreign Exchange Management Act, 2000, and the Securities and Exchange Board of India Act, 1992, along with the rules and regulations therein. For tax exemption purposes, guidelines are issued by the Central Board of Direct Taxes (CBDT). The PIPE deals are also governed by the SEBI Initial Capital Disclosure (ICD) Regulations, which deals with the regulations relating to QIBs and Preferential Placement. ***Foreign Direct Investments*** Most PE funds make FDIs under the automatic route, which does not require any prior approval. However, there are certain sectors such as broadcasting, courier services, print media, etc. in which investment is allowed only with the approval of the Foreign Investment Promotion Board (FIPB). Further, FDIs are prohibited in a few sectors such as multi-brand retail trading, gambling, betting, etc. The RBI follows the definition of FDI given by the IMF, wherein PE investments more than 10 percent are treated as an FDI. ***Foreign institutional investors*** Foreign institutional investors (FIIs), including private equity funds so registered, that are investing in the public markets have to comply with the SEBI (Foreign Institutional Investors) Regulations, 1995. These limit FII investment in an Indian company to 10 percent of the capital, and limit the aggregate investments of all FIIs and its sub-accounts to 24 percent, the latter limit being amenable to modification subject to sectoral limits.

Market Outcome for PE/VC Investments in India

Growth in PE/VC deals in India[4]

The PE/VC investments gained momentum in the late nineties with the growth of Indian IT companies and with the simultaneous global dot-com boom. Following the global IT boom, the Indian IT sector was viewed as a prominent funding opportunity, and consequently, saw a lot of venture capital coming into the country.

Although the number of PE/VC investments contracted in India fell for the second consecutive year in 2009, 2010 saw some hope for revival as 253 deals worth US $ 6.23 billion were struck, compared to the 206 and 312 deals in 2009 and 2008, respectively. As of June 2011, the number of PE deals struck stood at 203 deals worth US $ 5.10 billion (Chart 7-4).

[4] The market outcome of PE/VC investments is based on the data reported by Grant Thornton in Deal Tracker (2009), which reports PE/VC deals together.

Chart 7-4: Private Equity Deals in India

PE Fundraising/ Investments in BRIC countries

According to the data reported by the Emerging Markets Private Equity Association (EMPEA) in November 2011, among the BRIC economies, China and India remained the most preferred destination for private equity players in 2010. In 2010, fundraising by private equity in China and India was US $ 7,509 million and US $ 3,268 million, respectively. However, Russia saw a decline in the PE fundraising by around 83.52 percent in 2010. The other BRIC country Brazil experienced a significant spurt in the PE fundraising in 2010 (Table 7-8)

Table 7-8: Private Equity Fund Raising in BRIC Countries (in US $ mn)

Year	Brazil	Russia	India	China
2001	323	375	259	152
2002	270	100	142	105
2003	230	175	236	213
2004	480	200	706	311
2005	158	1,254	2,741	2,243
2006	2,098	222	2,884	4,279
2007	2,510	1,790	4,569	3,890
2008	3,589	880	7,710	14,461
2009	401	455	3,999	6,617
2010	1,078	75	3,268	7,509
till Sep 2011	4,465	60	2,883	12,855

Source: Emerging Market Private Equity Association, November 2011

In 2010, all the BRIC countries saw a sharp jump in PE investments. Russia had the maximum benefits, with a year-on-year spurt of about 600 percent. China and India remained the leading destinations for PE investments among the

BRIC countries in 2010, and managed to attract investments to the tune of US $ 9,190 million and US $ 6,222 million, respectively (Table 7-9).

Table 7-9: Private Equity Investments in BRIC Countries (in US $ mn)

	Brazil	Russia	India	China
2001	281	77	320	1,575
2002	261	127	40	126
2003	321	113	456	1,667
2004	120	240	1,272	1,389
2005	474	240	1,377	2,991
2006	1,342	402	5,687	8,200
2007	5,285	805	9,905	9,458
2008	3,020	2,647	7,483	8,994
2009	989	217	4,011	6,288
2010	4,604	1,516	6,222	9,190
till Sep 2011	1,685	1,328	5,668	8,576

Source: Emerging Markets Private Equity Association, November 2011

ADRs and GDRs

Foreign investors may also invest in Indian companies through the purchase of American Depositary Receipts (ADRs) and Global Depository Receipts (GDRs). Depository receipts, whether ADRs or GDRs, are essentially negotiable instruments denominated in U.S. dollars or another currency representing a publicly-traded issuer's local currency equity shares. They are created when the local currency shares of an Indian company, for example, are delivered to a depository bank's domestic custodian bank, against which the depository issues a depository receipt in U.S. dollars or another currency. Each depository receipt can represent one or more of the underlying shares. Indian companies are very familiar with the issuance of these instruments, and have tapped the ADR/GDR market frequently to raise foreign capital. Since ADRs/GDRs represent the underlying shares of the issuing company, their value fluctuates along with the value of the underlying shares.

Foreign investors who wish to have their investment in an Indian company represented by a U.S. dollar-denominated instrument can purchase ADRs/GDRs of the Indian issuer.

Non-Resident Indians (NRIs) and Persons of Indian Origin (PIOs)

Market Design

NRIs and PIOs	**A Non Resident Indian (NRI)** is a person who has gone out of India or who stays outside India, in either case for or on taking up employment outside India, or for carrying on a business or vocation outside India, or for any other purpose, in such circumstances as would indicate his intention to stay outside India for an uncertain period. Simply put, it means a person resident outside India who is a citizen of India or is a Person of Indian Origin. **Person of Indian Origin** means any person: a) who at any time, held an Indian passport; or b) he/she or either of his/her parents or any of his /her grandparents was a citizen of India by virtue of the Constitution of India or the Citizenship Act, 1955(57 of 1955); or c) the person is a spouse of an Indian citizen or a person referred to in clause (a) or (b) above.

Rupee and Foreign Currency Accounts	**Non-Resident (External) Rupee Accounts (NRE Accounts)** NRIs and PIOs are eligible to open NRE Accounts. These are rupee denominated accounts. The balance in the account is freely repatriable. **Ordinary Non-Resident Rupee Accounts (NRO Accounts)** These are rupee denominated non-repatriable accounts **Foreign Currency Non-Resident (Banks) Accounts (FCNR (B) Accounts)** NRIs/PIOs are permitted to open FCNR (B) Accounts in Canadian Dollars and Australian dollars also, in addition to the existing provision of maintaining such accounts in U.S. dollars, Japanese Yen, Sterling Pounds, and Euros. The account may be opened only in the form of a term deposit for any of the three maturity periods: (a) one year and above, but less than two years; (ii) two years and above, but less than three years; and (iii) three years only. Interest income is tax-free in the hands of the NRI as long as he/she maintains a non-resident status or 'a resident but not ordinarily resident' status under the Indian tax laws. The FCNR(B) accounts can also be utilized for local disbursements including payment for exports from India, repatriation of funds abroad, and for making investments in India, as per the foreign investment guidelines.
Portfolio Investments	The RBI has granted general permission to NRIs/PIOs for undertaking direct investments in Indian companies under the automatic route, for the purchase of shares under the portfolio investment scheme, for investment in companies and proprietorship/partnership concerns on a non-repatriation basis, and for remittances of current income. NRIs/PIOs do not have to seek specific permission for approved activities under these schemes. NRIs are permitted to make portfolio investments in shares/debentures (convertible and non-convertible) of Indian companies (except in the print media sector), with or without repatriation benefits, provided the purchase is made through a stock exchange or through the designated branch of an authorized dealer. NRIs are required to designate only one branch authorized by RBI for this purpose. **For NRIs to invest in the Indian stock market, it is mandatory to have a PAN (Permanent Account Number) Card.** NRIs are allowed to invest in the shares of listed companies in recognized stock exchanges under the portfolio investment scheme. NRIs can invest through designated ads on repatriation and non-repatriation basis under the PIS route up to 5 percent of the paid-up capital/paid-up value of each series of debentures of listed Indian companies. The aggregate paid-up value of shares/convertible debentures purchased by all NRIs cannot exceed 10 percent of the paid-up capital of the company/ paid-up value of each series of debentures of the company. The aggregate ceiling of 10 percent can be raised to 24 percent if the General Body of the Indian company passes a special resolution to this effect.
Payment of Purchase of Shares/ Convertible debentures	Payment of purchase of shares and/or debentures on repatriation basis has to be made by way of inward remittance of foreign exchange through normal banking channels, or out of funds held in an NRE/FCNR (B) account maintained in India. If the shares are purchased on a non-repatriation basis, the NRIs can also utilize their funds in the NRO account in addition to the above.
Transferability of Shares purchased on Stock Exchanges is not allowed	The shares purchased by NRIs on the stock exchange under the PIS cannot be transferred by way of sale under private arrangement or by way of gift (except by NRIs to their relatives as defined in Section 6 of the Companies Act, 1956, or to a charitable trust duly registered under the laws in India) to a person resident in India or outside India, without prior approval of the RBI.

Investment Restrictions for NRIs/PIOs	Investments in shares or convertible debentures of an Indian company engaged in the following type of activities are not permitted: • Chit fund or Nidhi company; • Agricultural or plantation activities; • Real estate business; • Construction of farm houses; or • Dealing in Transfer of Development Rights (TDRs).
Investments Allowed to NRIs/ PIOs	**NRIs can invest in India as under:** 1. Investment under automatic route with repatriation benefits 2. Investment with government approval 3. Other investments with repatriation benefits 4. Investments up to 100 percent equity without repatriation benefits Other investments by NRIs without repatriation benefits
Investment by NRIs on Non-Repatriation Basis	NRIs intending to invest on a non-repatriation basis should submit the application to a designated branch of an authorized dealer (AD). The AD will grant general permission to purchase shares/ debentures to the NRI, subject to the condition that the payment for such investment is received through an inward remittance or from the investor's NRE/FCNR/NRO Account. Investment on non-repatriation basis is allowed in the following instruments: • Government dated securities (other than bearer securities)/treasury bills; • Units of domestic mutual funds; • Units of money market mutual funds in India; • Non-convertible debentures of a company incorporated in India; • The capital of a firm or proprietary concern in India, not engaged in any agricultural or plantation activity, or real estate business; • Deposits with a company registered under the Companies Act, 1956, including NBFC, registered with the RBI, or a corporate body created under an Act of Parliament or State Legislature, a proprietorship concern, or a firm out of rupee funds, which do not represent inward remittances or transfers from NRE/FCNR(B) Accounts into the NRO Account; • Commercial paper issued by an Indian company; • Shares and convertible debentures of Indian companies other than under the portfolio investment scheme. **Securities acquired by NRIs under the PI scheme on a non-repatriation basis can be sold without any permission on the floor of a stock exchange. Dividend and interest income is fully repatriable.**
Investment on Repatriation Basis	NRIs intending to invest with repatriation benefits should submit the application to the designated branch of the AD. The AD will grant the NRI permission for the purchase of shares/debentures subject to the following conditions: • The payment is received through an inward remittance in foreign exchange or by debit to the investor's NRE/FCNR account. • The investment made by any single NRI investor in equity/preference shares and convertible debentures of any listed Indian company does not exceed 5 percent of its total paid-up equity or preference capital, or 5 percent of the total paid-up value of each series of convertible debentures issued by it.

	• NRIs take delivery of the shares/convertible debentures purchased and give delivery of the shares/convertible debentures sold under the scheme. NRIs can freely sell securities acquired by them with repatriation benefits without any permission through a stock exchange. Dividend and interest income is also fully repatriable.
Investment in the Units of Domestic Mutual Funds on Non-Repatriation/ Repatriation Basis	The same procedure as indicated in the paragraphs above for the investment on non-repatriation basis and on repatriation basis is applicable. However, approvals already granted for portfolio investment in shares/debentures of Indian companies will also be valid for the purchase of units of domestic mutual funds. No investments can be made through foreign currency. All investments have to be in Indian rupees. A convenient way to invest would be through the NRE accounts. Mutual funds schemes can be gifted to relatives in India by NRIs. If the investment is made on a repatriation basis, the net income or capital gains (after tax) arising out of the investment are eligible for repatriation subject to some compliance. If the investment is made on a non-repatriation basis, only the net income, i.e., dividend (after tax), arising out of the investment is eligible for repatriation. Indexation benefit is made available to NRIs in case the mutual fund units are held for more than twelve months.
Investment in Exchange-Traded Derivative Contracts	NRIs are allowed to invest in exchange-traded derivative contracts approved by the SEBI from time to time of rupee funds held in India on a non-repatriation basis, subject to the limits prescribed by the SEBI. The shares purchased by NRIs on the stock exchange under the portfolio investment scheme cannot be transferred by way of sale under private arrangement or by way of gift to a person resident in India or outside India without prior approval from the RBI.
Monitoring of Investment Position by RBI	The RBI monitors the investment position of FIIs/NRIs in listed Indian companies as reported by the custodian/designated AD banks on a daily basis. The concept of a caution list/ban list is the same as was discussed in section on the market design of FIIs.

NRI Investments

The NRI turnover data at the NSE is depicted in Table 7-10. The NRI turnover at the cash market of the NSE registered a year-on-year growth of 2.54 percent in 2010–2011, and stood at ₹ 106,180 million. In the derivatives market of the NSE, the total NRI turnover stood at ₹ 111,052 million in 2010-2011, a year-on-year growth of 160.45 percent over 2009–2010.

Table 7-10: NRI Turnover at NSE

Year	Cash Market Gross Turnover (₹ mn)	Derivatives Market Gross Turnover (₹ mn)
2007-08	85,443.35	39,464.26
2008-09	50,161.38	30,190.46
2009-10	103,545.90	42,645.70
2010-11	106,180.19	111,052.40

Source: NSE
Note: In the cash segment, data has been collated on the basis of the client category uploaded by the trading members. The buy and sell amounts in the derivatives market were identified after custodial confirmations and the completion of the settlement for Institutional Category NRIs. In the case of derivatives, both buy and sell values have been calculated as:
*Options Value (Buy/Sell) = (Premium + Strike price) * Quantity*
*Futures Value (Buy/Sell) = Traded Price * Quantity*

8. Knowledge Initiatives

Several initiatives have been taken over the last few years with a view to developing the skills of market intermediaries, educating the investors, and promoting high quality research in the securities market.

Quality Intermediation

In some of the developed and developing markets, there is a system of testing and certification for persons joining the market intermediaries. This ensures that these personnel have the minimum required knowledge about the market and the existing regulations. The benefits of this system are widespread. 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 of being associated with the securities market. The formal educational or training program on the securities markets is not adequate to cover their areas of operations. For instance, no academic course teaches how to maintain depository accounts or how to sell mutual fund products, issue contract notes, or clear and settle trades on a stock exchange. As a result, the need for a certification was being increasingly felt by the regulators as well as by the securities industry.

NSE's Certification in Financial Markets (NCFM)

The National Stock Exchange's Certification in Financial Markets (NCFM) is an online testing and certification process. The entire process—from the generation of question papers to testing, assessing, scores reporting, and certifying—is fully automated. It allows tremendous flexibility in terms of testing centers, dates, and timing by providing easy accessibility and convenience to the 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.

The NCFM offers a comprehensive range of modules covering many different areas in finance. The NCFM currently tests expertise in the modules included in Table 8-1.

Five new modules have been introduced under the NCFM in 2011, namely, the Fundamental Analysis Module, the Banking Sector Module, the Insurance Module, the Macroeconomics for Financial Markets Module, and the Securities Market (Advanced) Module.

Table 8-1: NCFM Module Test Details

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

**	Candidates have the option to take the tests in English, Gujarati or Hindi languages.*
*#	Candidates securing 80% or more marks in NSDL-Depository Operations Module ONLY will be certified as 'Trainers'.*
***	Following are the modules of Financial Planning Standards Board India (Certified Financial Planner Certification)*
- *FPSB India Exam 1 to 4 i.e. (i) Risk Analysis & Insurance Planning (ii) Retirement Planning & Employee Benefits (iii) Investment Planning and (iv) Tax Planning & Estate Planning*
- *Examination 5/Advanced Financial Planning*

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

NSE Certified Market Professional (NCMP)

The NSE Certified Market Professional (NCMP) certificates are issued to those candidates who have cleared the NCFM modules as prescribed by the Exchange. This hierarchy of certifications is aimed at enabling the candidates to better demonstrate their domain knowledge relating to the financial markets. Thus, a candidate clearing 3–4 modules would be given an NCMP Level 1 certificate, and so on. Currently, there are 19 modules for the NCMP certification; information about these modules is available on the NSE Website (www.nse.com>Home>Education>Certifications >NSE Certifications>NCMP)

The eligibility criteria for the NCMP certification are given below:

- NCMP Level 1: 3–4 modules
- NCMP Level 2: 5–6 modules
- NCMP Level 3: 7–8 modules
- NCMP Level 4: 9–10 modules
- NCMP Level 5: 11 or more modules

CBSE-NSE Joint Certification in Financial Markets

The CBSE and the NSE introduced a joint certification in financial markets for classes XI and XII. The course, titled Financial Markets Management (FMM), had been introduced by the CBSE during the academic year 2007–2008. The course includes various subjects, such as languages, economics, business studies, and accounting for business. In addition to these, two financial market-related subjects, namely, Introduction to Financial Markets: I and Introduction to Financial Markets: II, are taught in class XI and XII, respectively. The students opting for the course are required to take the NCFM online tests in Financial Markets: A Beginners' Module in class XI, and both the Capital Markets (Dealers) Module as well as the Derivatives Markets (Dealers) Module in class XII. The course is in its third year, and over 2500 students are currently enrolled for the course. This is the first such attempt to introduce financial literacy in a formal way in schools.

The course completed three years in 2010-11, during which time 94 schools had opted for the CBSE-NSE certification, and 2100 candidates had successfully qualified for the CBSE-NSE joint certification in financial markets.

NSE-Manipal Education Training Programs on Stock Markets

The NSE has joined hands with Manipal Education, one of India's premier educational institutions, to impart training aimed at improving the participants' understanding of how the stock markets function. These programs are designed to cater to people interested in a career in stock markets and other related financial services, as well as to those who wish to learn about the functioning of the securities markets. They include relevant tools and techniques that provide comprehensive understanding of the various facets of the stock market.

NSE Certified Capital Market Professional (NCCMP)

The NSE, in collaboration with reputed colleges and institutes in India, has been offering a short-term course called the NSE Certified Capital Market Professional (NCCMP) since August 2009, in the campuses of the respective colleges/ institutes. The aim of the NCCMP program is to develop skills and competency in the securities markets. It is a 100-hour program, spanning 4–6 months, and covering theoretical and practical training in various subjects related to the capital markets. Successful candidates are awarded a joint certification from the NSE and the concerned college. The NCCMP covers an array of subjects pertaining to the capital markets, such as equity markets, debt markets, derivatives, macroeconomics, technical analysis, and fundamental analysis.

Basic Financial Literacy Course

The NSE has joined hands with Maharashtra Knowledge Corporation Ltd. (MKCL) to launch a course in basic financial literacy. The aim of the course is to educate learners about simple concepts of personal finance. The course covers topics such as income, taxation, expenditure, savings and investment avenues, borrowing, managing risk, budgeting, and so on. Participants would also learn about various financial institutions, and how they can benefit from these institutions. The course helps participants become aware of different products through which they can meet their financial needs and learn about the benefits of prudent financial behavior. The course comprises 14 modules, each of which are approximately 60 minutes long. At the end of the course, there would be an online examination and the successful candidates receive an NSE-MKCL certification in basic financial literacy.

Research Initiatives

Knowledge management is very important in today's competitive world. It acts as a tool that helps to acquire the cutting edge in a globalized financial market. The regulators and SROs have been actively encouraging academicians and market participants to carry out research on the various segments of the securities markets. The objective of this initiative is to foster research, which can support and enable:

- stock exchanges to better design market micro-structure;
- participants to frame their strategies in the market place;
- regulators to frame regulations;
- policy makers to formulate policies; and
- researchers to expand the horizon of knowledge.

In 2011, three research papers were completed under the NSE Research Initiative. The complete papers are available on the NSE Website; the non-technical abstracts of these papers are included here.

1. Imbalances Created because of Structured Products in Indian Equity Markets

Mr. GopiKrishna Suvanam and Mr. Amit Trivedi

This paper studies the effect of hedging of structured products on exchange-traded equity products. We look at various aspects of the structured product markets including the motivation to buy, the risks of the products, the hedging behaviour, and the effect of hedging on exchange-traded products. We conclude that hedging would be volatility supportive in a sell-off, and would be volatility suppressing in a significant rally. We also suggest the introduction of some new exchange products that would make the hedging process easy, and would also help some retail investors express their view in a better manner without the transaction costs involved in structured products.

2. Some Preliminary Examinations of the Predictive Ability of India VIX

Dr. Debasis Bagchi

Earlier studies established a positive relationship between the volatility index (VIX) and the stock index returns. These studies were mainly restricted to developed markets and similar research in emerging markets is scarce. We intend to fill this gap, and in the process, extend our study for examining the direct and the cross-sectional relationship of India

VIX with three important parameters, viz., stock beta, market-to-book value of equity, and market capitalization. Using multiple regression analysis, we find that India VIX has a positive and significant relationship with the returns of the value-weighted portfolios sorted on the basis of beta, market-to-book value of equity, and market capitalization. We further examine the behaviour of India VIX with market-to-book value of equity and market capitalization as controlling variables, and document that India VIX yields a positive and significant relationship with the portfolio returns in these cases also. These results suggest that India VIX is a distinct risk factor, capable of predicting the pricing mechanism of the market.

3. Market Integration and Efficiency of Indian Stock Markets: A Study of NSE

Dr. Prashant Joshi

The study attempts to explore the dynamics of the comovement of the stock markets of the USA, Brazil, Mexico, China, and India during the period January, 1996 to July, 2007 using daily closing price data. It attempts to analyze the speed of adjustment coefficients using daily, weekly, and monthly data. It also tries to examine the efficiency of the stock market as a result of the initiatives and regulatory measures taken by the NSE and the SEBI, respectively.

The long-term relationships among the markets are analyzed using the Johansen and Juselius multivariate cointegration approach. The short-run dynamics are captured through vector error correction models. The analysis reveals evidence of cointegration among the markets, demonstrating that the stock prices in the countries considered in this study share a common trend. The results reveal that the speed of adjustment of the Indian stock market is higher than that of the other global stock markets.

The analysis of the speed of adjustment coefficient reveals that significant underreactions and overreactions along with full adjustment are observed at both shorter as well as longer differencing intervals during the first period (1996–2001) using daily data, while the second period (2002–2007) indicates significant overreactions with higher speed of adjustment coefficient. The results of the event methodology reveal that the stock market have become efficient at information processing in recent times with regard to some of the regulatory measures taken by the SEBI.

Data Dissemination

The National Stock Exchange (NSE) compiles, maintains ,and disseminates high quality data to market participants, researchers, and policy-makers. This acts as valuable input for formulating strategies, doing research, and making policies. The data and info-vending services of the NSE are provided through DotEx International Limited (DotEx), which is a separate professional set-up dedicated for this purpose. The DotEx provides the NSE's market quotes and the data for the various market segments. The DotEx currently provides the following five products: (i) NSE's online Real Time Data Feed, which is high-speed streaming data providing stock exchange trade quotations and other related information pertaining to the trading on the capital market, the wholesale debt market, the futures and options segments, the securities lending and borrowing market, and the currency derivatives market segment of the NSE (NSE's real time data is provided in three levels—level 1, level 2, and tick by tick); (ii) NSE's 5-minute, 2-minute, and 1-minute Snapshot Data Feed, which contains data pertaining to stock exchange trade quotations and other related information pertaining to the trading on the various market segments of the NSE; (iii) NSE's End of Day data, which contains the End of Day bhavcopy information along with the security and trade details pertaining to the capital market, the wholesale debt market, and the futures and options segments of the NSE; (iv) Historical Data (provided on DVDs/CDs), which is available for the capital market segment, the futures and options segments, and the wholesale debt market segment, and contains (a) day-wise bhavcopy for each trading day, (b) the circulars issued by the NSE or the NSCCL during the month, (c) the masters containing information such as symbols, series, ISINs, etc., (d) the snapshots of the limit order book at four time points in the day, and (e) trades data containing the details about every trade that took place; and (v) Corporate Data, which contains data pertaining to company fundamentals, corporate announcements, and shareholding patterns.

Investor Awareness and Education

The NSE has been conducting investor awareness and education seminars on a regular basis at various centers across the country. Informative brochures and booklets have been prepared for educating investors, which are distributed free of cost at the seminars. 956 investor awareness programmes were conducted during the year 2010-2011.

Focused efforts have been made to enhance the knowledge and understanding of new as well as existing product categories through various interactive sessions and training programs that are available to NSE members, sub-brokers, and investors. These training and awareness programs include topics such as currency derivatives, ETFs, mutual fund service systems, interest rate futures, and investor awareness programs focused on exchange-traded products. The participants include corporate, importers/exporters, banks, individual clients, NSE members, their branches, and sub-brokers.

Visit to NSE Program

It has been NSE's endeavour to spread knowledge about financial markets as widely as possible. As part of this endeavour, the NSE has been organizing the 'Visit to NSE' Program, under which groups of students visit the NSE to attend a two-hour session. The session includes lectures on the overview of the Exchange, capital markets, derivative markets, and NSE's NCFM certification, which not only expands their knowledge base but also improves their career prospects. In this session, the students learn about the stock exchange structure, its operations, the products traded on it, and so on. This program is conducted in the Mumbai office as well as in the regional offices located at Delhi, Kolkata, and Chennai.

Investor Awareness Efforts for Currency Derivatives

The NSE is a pioneer in the development of the Indian securities market and in the introduction of various reforms, including the creation of a vibrant derivatives market. Over the years, the NSE has taken many initiatives to strengthen the securities industry. With the evolving needs of the market, the NSE has launched several new products and has attracted active participation from various categories of market participants. Within two years of launching currency futures in India, the NSE launched currency options on the USD-INR currency pair on October 29, 2010.

NOTES

NSE

NATIONAL STOCK EXCHANGE OF INDIA LIMITED

Exchange Plaza, Bandra Kurla Complex
Bandra (East), Mumbai - 400051 India
Tel : +91 22 2659 8100 / 266418100 Fax: +91 22 26598120
Email: cc_nse@nse.co.in Website: www.nseindia.com