Volume XII 2009

NIFTY 50
Stock of the nation


# Indian Securities Market
## A Review

NATIONAL STOCK EXCHANGE
OF INDIA LIMITED

A Review

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Volume XII 2009

This publication reviews the developments in the securities market in India

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NATIONAL STOCK EXCHANGE OF INDIA LIMITED

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## A Review



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# ABBREVIATIONS

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

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

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

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

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

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

# Securities Market in India and Abroad– An Overview

## Introduction

The year 2008 will go down in the history of the world as a year marked by financial markets in a turmoil; hundred year old institutions wiped out; major auto players on the brink of bankruptcy; currency, crude and metal prices showing wild gyrations etc. A financial crisis was brewing since 2000-01 with the lowering of interest rates by the US's Federal Reserve Bank to ward off the recession risk due to bursting of technology bubble. By January 2007, the US economy witnessed rare simultaneous alignment of three conditions, viz interest rates rose, home prices fell due to over-supply and Americans' incomes stayed flat. As customers defaulted on their debts, the crisis took the shape of certain major financial insitutions failing to meet their liabilities. The crisis assumed large proportions by the year 2008 and engulfed most of the developed and developing world.

This was also the year which saw governments across the world, giving out sweeping bailouts to financial institutions battered by bad mortgages and a loss of investor confidence.

This chapter is split into two sections. **Section 1** focuses on the impact of this crisis on the stock markets worldwide. **Section 2** talks of the structure of the Indian securities markets and developments in 2008-09, under the backdrop of the financial crisis.

## SECTION 1

## Global Financial Crisis

This section first gives an introduction to the global financial crisis and presents some analysis pertaining to the world wide stock markets on the basis of various parameters such as market capitalizations, turnover, capital flows, stock market indices etc.

The 2007-09 financial crisis became apparent in the year 2007, though it had its roots in the closing years of the 20th century. Before the crisis erupted, the economies world wide were characterized by booming stock and real estate market, ample liquidity, low interest rates and lesser volatility in financial markets. The financial crisis happened in phases beginning with sub-prime crisis in US followed by collapse of one of the largest financial institution in the US, the Lehman Brothers; unravelling of Credit Default Swaps (CDS) and recession of certain developed and developing economies.

The low interest rates regime, prevalent in the US and parts of Europe, triggered the sub-prime crisis. It encouraged the financial industry to make a lot of money and lend huge sums of money for house purchases and consumer loans even to the sub prime borrowers (the borrowers with poor credit history). In turn, the banks and financial institutions resorted to asset securitization i.e. the banks and financial institutions used their customer mortgages and value of their homes to create mortgaged backed securities and credit default swaps. These mortgages/loans were packaged and sold to investment banks, foreign banks, insurance companies, individuals and financial institutions to generate capital. The people who bought these loans further made use of borrowed funds and this created another layer of debt. Gradually, many US borrowers realized that they were unable to meet their mortgage repayments and this caused the pyramid of debt to collapse. The problem came to the forefront when the two Bear Sterns hedge funds with exposure to the US housing market collapsed in June 2007. Thereafter, US housing prices declined and resulted in massive losses in the mortgage related derivative assets held by banks. Merrill Lynch was the first investment bank to report loss followed by other major global financial institutions, such as AIG Group, Goldman Sachs and Morgan Stanley.

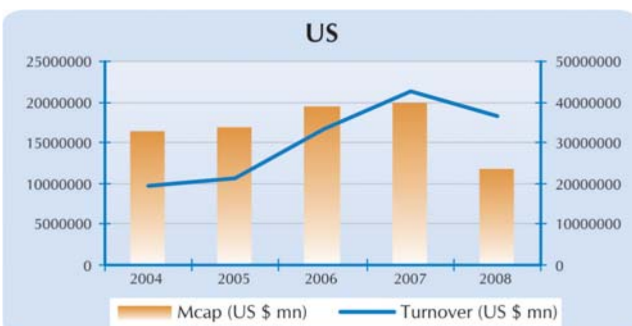
## Country Turnover and Market Capitalization Analysis

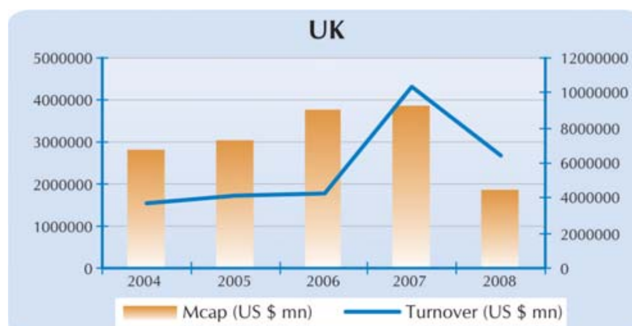
The countries selected for the analysis are US, UK, Germany, France, Japan, Australia, Singapore, Hongkong for the developed markets and India, China, Mexico, Russia, Brazil, Korea, Indonesia, Taiwan and Malaysia for the developing economies. Chart 1-1 shows the turnover and market capitalization these countries for last five years. The broad trend witnessed is that the stock markets worldwide had, in 2008, reached the approximate levels they were at in 2004 in terms of market capitalization (exception is Russia and China).

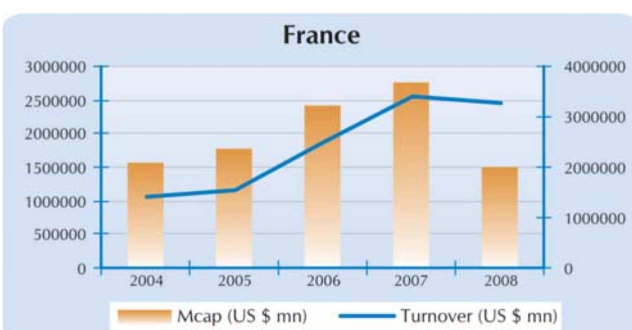
According to country wise data given by Standard and Poor's, the market capitalization of all listed companies taken together stood at US $ 35.81 trillion in 2008 i.e. nearly 44.53% below the market capitalization of US $ 64.56 trillion in 2007. The market capitalization touched in 2008 was 6.62% below the level reached in 2004. The turnover of all markets taken together has grown from US $ 39.62 trillion in 2004 to US $ 80.51 trillion in 2008. However, compared to 2007 the turnover fell by 18.52%. US alone accounted for about 45.29 % of worldwide turnover in 2008 as compared with its share of 48.85% in 2004. The share of India in the total world turnover increased from 0.95% in 2004 to 1.30% in 2008. **Table 1-1** gives a snapshot of the International securities markets.The intensity of the fall of the stock markets can be gauged through the following charts which show the market capitalization and turnover for period 2004-2008.

**Chart 1-1: Country Turnover and Market Capitalization Analysis**

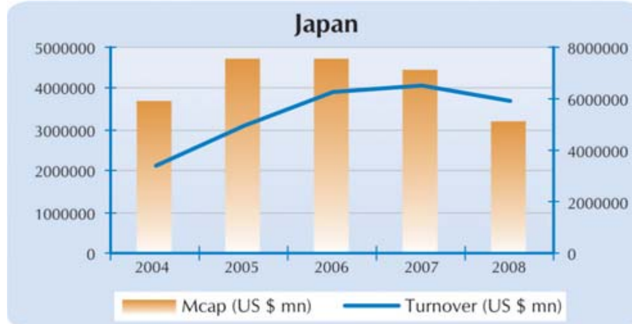
**DEVELOPED ECONOMIES**

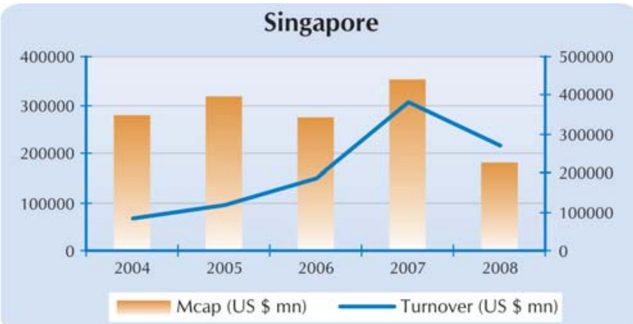


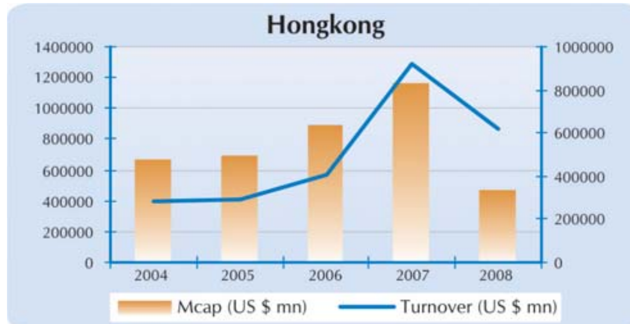








## DEVELOPING ECONOMIES

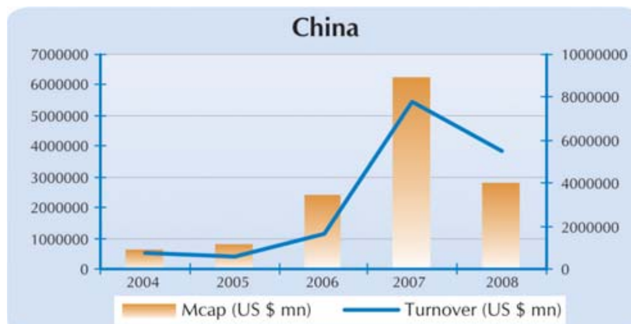







**Table 1-1: International Comparison of Stock Markets**

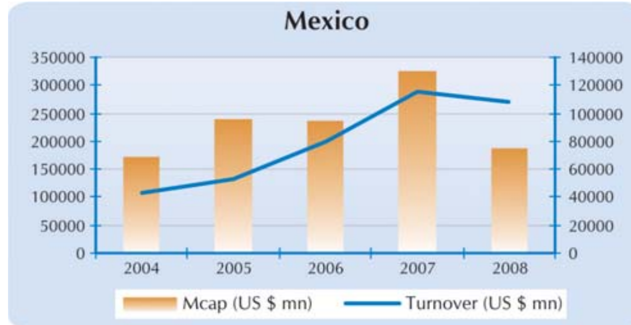
| Markets / Region | Market Capitalisation (US $ mn) | | | Turnover (US $ mn) | | | Turnover Ratio (in %) | | | Market Capitalisation Ratio (in %) | | | No. of listed Companies | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 | 2006 | 2007 | 2008 |
| **Developed Market** | **42,916,705** | **46,300,864** | **26,533,854** | **59,258,415** | **82,455,174** | **67,795,950** | - | - | - | - | - | - | - | - | - |
| Australia | 1,095,858 | 1,298,429 | 675,619 | 826,285 | 1,322,822 | 1,013,937 | 87 | 111 | 103 | 163 | 175 | 90 | 1,751 | 1,913 | 1,924 |
| France | 2,428,572 | 2,771,217 | 1,492,327 | 2,504,704 | 3,418,890 | 3,257,667 | 120 | 132 | 152 | 112 | 120 | 61 | 717 | 707 | 966 |
| Germany | 1,637,826 | 2,105,506 | 1,107,957 | 2,486,668 | 3,363,093 | 3,093,750 | 174 | 180 | 192 | 57 | 69 | 35 | 656 | 658 | 638 |
| Hongkong | 895,249 | 1,162,566 | 468,595 | 403,873 | 916,884 | 621,649 | 60 | 89 | 82 | 466 | 584 | 214 | 1,021 | 1,029 | 1,017 |
| Japan | 4,726,269 | 4,453,475 | 3,220,485 | 6,252,470 | 6,497,193 | 5,886,404 | 132 | 142 | 153 | 95 | 90 | 67 | 3,362 | 3,844 | 3,299 |
| Singapore | 276,329 | 353,489 | 180,021 | 184,380 | 384,227 | 270,909 | 62 | 122 | 101 | 231 | 274 | 121 | 461 | 472 | 455 |
| UK | 3,794,310 | 3,858,505 | 1,851,954 | 4,242,082 | 10,324,477 | 6,484,292 | 124 | 270 | 227 | 167 | 157 | 75 | 2,913 | 2,588 | 2,415 |
| USA | 19,425,855 | 19,947,284 | 11,737,646 | 33,267,643 | 42,613,206 | 36,467,431 | 183 | 217 | 232 | 150 | 149 | 85 | 5,133 | 5,130 | 5,603 |
| **Emerging Markets** | **10,458,582** | **18,262,550** | **9,227,306** | **8,226,944** | **16,361,131** | **12,720,872** | - | - | - | - | - | - | - | - | - |
| China | 2,426,326 | 6,226,305 | 2,793,613 | 1,635,121 | 7,791,702 | 5,470,529 | 102 | 180 | 121 | 107 | 238 | 89 | 1,440 | 1,530 | 1,604 |
| India | 818,879 | 1,819,101 | 645,478 | 638,484 | 1,107,550 | 1,049,748 | 93 | 84 | 85 | 102 | 200 | 60 | 4,796 | 4,887 | 4,921 |
| Russia | 1,057,189 | 1,503,011 | 1,321,833 | 514,362 | 754,537 | 562,230 | 64 | 59 | 75 | 166 | 183 | 124 | 309 | 328 | 314 |
| Brazil | 711,100 | 1,370,377 | 589,384 | 254,513 | 584,951 | 727,793 | 43 | 56 | 74 | 107 | 154 | 53 | 392 | 442 | 432 |
| Indonesia | 138,886 | 211,693 | 98,761 | 48,831 | 112,851 | 110,678 | 44 | 64 | 71 | 49 | 67 | 27 | 4,796 | 4,887 | 4,921 |
| Korea | 835,188 | 1,123,633 | 494,631 | 1,340,122 | 1,947,015 | 1,465,999 | 173 | 202 | 181 | 109 | 131 | 52 | 1,694 | 1,767 | 1,798 |
| Malaysia | 235,356 | 325,663 | 187,066 | 66,904 | 150,002 | 85,214 | 32 | 54 | 33 | 187 | 222 | 110 | 1,027 | 1,036 | 977 |
| Taiwan | 654,858 | 723,687 | 380,923 | 894,553 | 1,272,432 | 944,023 | 157 | 185 | 171 | 163 | 183 | 101 | 1,222 | 1,248 | 1,260 |
| Mexico | 348,345 | 397,725 | 232,581 | 80,095 | 115,617 | 108,202 | 27 | 31 | 34 | 46 | 49 | 34 | 131 | 125 | 125 |
| **World Total** | **53,375,287** | **64,563,414** | **35,811,160** | **67,485,359** | **98,816,305** | **80,516,822** | – | – | – | – | – | – | – | – | – |
| USA as % of World | 36.39 | 30.90 | 32.78 | 49.29 | 43.12 | 45.29 | – | – | – | – | – | – | – | – | – |
| India as % of World | 1.53 | 2.82 | 1.80 | 0.95 | 1.12 | 1.30 | – | – | – | – | – | – | – | – | – |

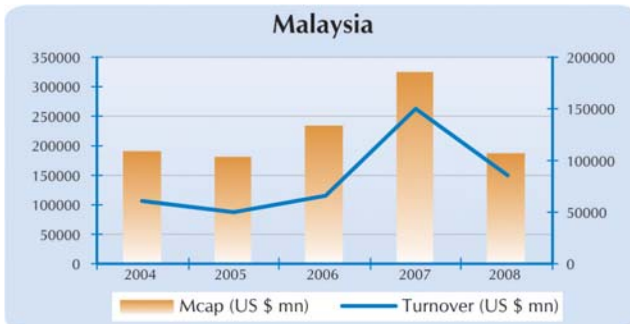
**Note**

Market capitalisation ratio is computed as a percentage of GNI of the preceding year.

Listed companies in India pertains to BSE.

Source : S&P Global Stock Market Fact Book, 2009


## Markets/Regionwise Analysis

To assess the global financial crisis situation from a macro perspective i.e. according to country wise classification into high income, middle income and low income economies, we can look at the 'World Development Indicators 2008'. The turnover ratio for the year 2008 increased for the high income countries to 180.5% from 150.2% in 2007. For the middle and low income countries, however the ratios showed a dip. This turnover ratio data along with other parameters like market capitalisation ratio and listed domestic companies can be seen from **Table 1-2.**

### Table 1-2: Select Stock Market Indicators

| Markets | Market Capitalisation as % of GDP | | | | Turnover Ratio (%) | | | | | Listed Domestic Companies | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2004 | 2005 | 2006 | 2007 | 2008 | 2004 | 2005 | 2006 | 2007 | 2008 |
| **High Income** | **109** | **113** | **126** | **124** | **110.1** | **114.0** | **122.2** | **150.2** | **180.5** | **27,594** | **28,001** | **28,733** | **30,016** | **29,505** |
| **Middle Income** | **43.7** | **49.5** | **74.2** | **117** | **60.9** | **41.6** | **75.3** | **94.5** | **78.2** | **14,456** | **14,117** | **11,141** | **13,195** | **15,300** |
| **Low & Middle Income** | **43.8** | **50.1** | **73.3** | **114** | **72.4** | **53.7** | **78.2** | **94.3** | **77.8** | **22,444** | **20,873** | **17,263** | **20,106** | **16,834** |
| East Asia & Pacific | 41 | 41.3 | 85.1 | 165.1 | 103.5 | 50.0 | 123.1 | 163.5 | 112.0 | 3,582 | 3,794 | 3,525 | 4,080 | 3,868 |
| Europe & Central Asia | 32.8 | 45.8 | 66.7 | 77.3 | 37.9 | 59.0 | 68.5 | 64.1 | 68.8 | 7,776 | 7,023 | 4,490 | 6,070 | 3,882 |
| Latin America & Caribbean | 39.6 | 44.6 | 51.7 | 71.4 | 22.0 | 26.1 | 29.2 | 34.8 | 47.0 | 1,468 | 1,525 | 1,342 | 1,509 | 1,302 |
| Middle East & N. Africa | 37.1 | 49.1 | 48.9 | 56.1 | 64.4 | 16.5 | 27.0 | 28.3 | 28.7 | 1,803 | 1,627 | 1,078 | 1,443 | 772 |
| South Asia | 48.7 | 60.4 | 77.2 | 133.4 | 131.2 | 120.6 | 108.7 | 101.3 | 89.3 | 6,909 | 6,000 | 5,954 | 6,089 | 6,098 |
| Sub-Saharan Africa | 129.6 | 137.0 | 159.9 | 149.0 | 39.3 | 27.6 | 32.6 | 30.1 | 29.1 | 906 | 904 | 874 | 915 | 912 |
| **Low Income** | **44.5** | **54.2** | **67** | **40.5** | **130.5** | **107.6** | **96.6** | **93.3** | **69.3** | **7,988** | **6,756** | **6,122** | **6,911** | **1,534** |
| **India** | **56.1** | **68.6** | **89.8** | **155** | **115.5** | **93.6** | **96.4** | **95.9** | **85.2** | **4,730** | **4,763** | **4,796** | **4,887** | **4,921** |
| **World** | **96.3** | **99.6** | **114** | **121** | **72.4** | **53.7** | **78.2** | **94.3** | **--*** | **50,038** | **48,874** | **49,946** | **50,212** | **--*** |

*Source: World Development Indicators 2008, World Bank.*

** Aggregates not presented because data for high-income economies are not available for 2008*

## Index Examination

To further examine the financial crisis, the movement of indices over the period January 2007 to September 2009 is analyzed. The stock market indices considered are Dow Jones and Nasdaq for US, FTSE for UK, Nikkie 225 for Japan, Hangseng for China and Nifty 50 for India. The indices have been rebased to index values as on January 2007 till September 2009. The movement of these indices shows that the trend can be clubbed into **5** different phases. These phases have been explained below through **Chart 1-2.**

### Phase I: Jan 2007- Mid July 2007

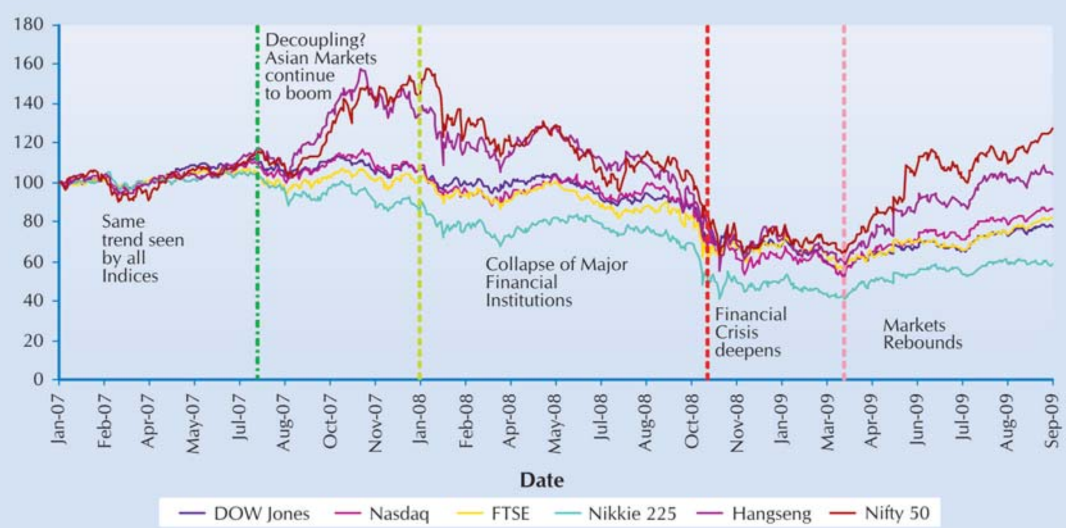
In Chart 1-2, synchronized movements in the stock market indices were witnessed till July 2007. This is indicated by the **dark green line and marks Phase I.** The global stock markets during this period showed positive correlation in the European (FTSE), American (Dow Jones, Nasdaq) and Asian Markets (Nifty and Hangseng).

### Phase II: Mid July 2007 to January 2008

This phase can be categorized as the `Decoupling Phase' (i.e. the stock markets became bipolar). This phase lies between the dark green line and light green line**.** During this phase, the Asian markets saw exceptionally high returns and saw an upside in the range of 10-60% while the American and European markets witnessed meager returns because at that point of time the investors in the US and Europe lost confidence in the value of securitised mortgages. However, during this phase, most of the stock market indices witnessed their all time highs for period 2007-09 as shown below.

| Indices | Highs | Date |
|---|---|---|
| Dow Jones | 14164.53 | 9-Oct-07 |
| Nasdaq | 2859.12 | 31-Oct-07 |
| FTSE | 6732.4 | 15-Jun-07 |
| Nikkie 225 | 18261.98 | 9-Jul-07 |
| Hangseng | 31638.22 | 30-Oct-07 |
| Nifty 50 | 6287.85 | 8-Jan-08 |

**Chart 1-2: Movement of key stock market indices through the global financial crisis period (2007-09)**



### Phase III: End Jan 2008 to October 2008

The decoupling phase which surfaced at end of July 2007 saw an end in January 2008 when the Asian markets fell sharply. In fact this was the phase when the simultaneous slowdown in the economic activity around the world clearly indicated that decoupling phase which was witnessed in phase II was a mirage.

This phase is also marked by a series of correction as be seen in Chart 1-2 and the end of this phase is marked by a **dark red dashed line.** The entire financial market scenario was gloomy, witnessing declining stock prices, capital outflows by foreign investors, depreciation of currencies, slow growth rate for some economies while negative for others. In August 2008 Fannie Mae and Freddie Mac (largest home loan mortgage companies in the US) failed and the US Treasury took over them. In September 2008, the crisis deepened as the stock markets world wide fell sharply, witnessed bouts of volatility and number of bank mortgage and insurance companies collapsed. Lehman Brothers, the world's top investment bank, failed during this period. This period also saw mergers of various primary dealers including Bear Sterns, Merrill Lynch and Countrywide. AIG was saved by major support from the Fed.

### Phase IV: November 2008 to March 2009

To arrest the deteriorating situation i.e. the slowdown of economies, failures of industries and rising unemployment the Governments and financial regulators world wide announced bail out / stimulus packages, and framed easy monetary and fiscal policies. In fact it was during this phase that the spillover effect of financial crisis from developed nations to emerging nations was evident. The emerging economies felt the reverberations from the crisis and this was manifested through economic indicators such as export and import figures, unemployment numbers and growth indices etc. In Chart 1-2 also it can be seen that once again the Asian markets moved in synchronization (upward and downward moves) with other markets during the period November 2008 to March 2009 **(marked by light red dashed line).** During this period, the European and US markets saw their all time lows in March 2009. The Asian Markets (excluding Japan's Nikkie 225) saw their second or third all-time lows in March 2009 after witnessing their steepest falls in October 2008 as shown below.

| Indices | Lows | Date |
|---|---|---|
| Dow Jones | 6547.05 | 9-Mar-09 |
| Nasdaq | 1268.64 | 9-Mar-09 |
| FTSE | 3512.09 | 3-Mar-09 |
| Nikkie 225 | 7054.98 | 10-Mar-09 |
| Hangseng | 11015.84 | 27-Oct-08 |
| Nifty 50 | 2524.2 | 27-Oct-08 |

### Phase V: Mid March 2009 to September 2009

After March 2009, the positive effects of stimulus packages, easy monetary and fiscal polices were witnessed and the world wide stock market indices started to show an upward trend.

During this crisis, bouts of volatility and extremities were witnessed by all the stock markets as is shown through Chart 1-2. Highest variation (in terms of the returns between its closing high and closing low) was shown by Hangseng followed by Nikkie and Nifty.

| Indices | Lows | Highs | Variation |
|---|---|---|---|
| Dow Jones | 6547.05 | 14164.53 | 116.35 |
| Nasdaq | 1268.64 | 2859.12 | 125.37 |
| FTSE | 3512.09 | 6732.4 | 91.69 |
| Nikkie 225 | 7054.98 | 18261.98 | 158.85 |
| Hangseng | 11015.84 | 31638.22 | 187.21 |
| Nifty 50 | 2524.2 | 6287.85 | 149.10 |

The financial crisis witnessed during the period 2007-09 has been an eye opener for all the financial regulators. The crisis indicated that inspite of witnessing new financial innovations, there are some problems which are inherent in the existing financial structure and well articulated reforms need to be entrenched into the financial systems. Also, an important lesson learnt is that the regulators around the world need to have a coordinated approach in defining the regulations.

Other aspects of international scenario with respect to the securities markets are presented below.

# SECTION 2

## An overview of Indian securities markets

During the period 2008-09, the Indian securities market also witnessed a slowdown, inline with global scenario. The resource mobilization through primary market was Rs.6,588,920 million (US $ 129,320 million) crore down by 13.80% in 2008-09 from Rs.5,789,720 (US $ 144,852) million in 2007-08. In all 21 IPOs came to the market compared with 85 in 2007-08. Due to slack in liquidity conditions, the resources raised by India Inc. through euro issues also saw a sharp fall. In the secondary market, all stocks saw major correction in their prices. Even redemptions by mutual funds increased on a large scale and Foreign institutional investors pulled out money from the Indian markets.

## Key strengths of the Indian securities markets

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

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

## Market Segments

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

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

## Market Participants

In every economic system, some units, individuals or institutions, are surplus-generating, who are called savers, while others are deficit- generating, called spenders. Households are surplus-generating and corporates and Government are deficit generators. Through the platform of securities markets, the savings units place their surplus funds in financial claims or securities at the disposal of the spending community and in turn get benefits like interest, dividend, capital appreciation, bonus etc. These investors and issuers of financial securities constitute two important elements of the securities markets. The third critical element of markets are the intermediaries who act as conduits between the investors and issuers. Regulatory bodies, which regulate the functioning of the securities markets, constitute another significant element of securities markets. The process of mobilisation of resources is carried out under the supervision and overview of the regulators. The regulators develop fair market practices and regulate the conduct of issuers of securities and the intermediaries. They are also in charge of protecting the interests of the investors. The regulator ensures a high service standard from the intermediaries and supply of quality securities and non-manipulated demand for them in the market. **Table 1-3** presents an overview of market participants in the Indian securities market.

**Table 1-3: Market Participants in Securities Market**

| Market Participants | As on March 31 | | As on June 30, 2009 |
|---|---|---|---|
| | 2008 | 2009 | |
| Securities Appellate Tribunal (SAT) | **1** | **1** | 1 |
| Regulators* | 4 | 4 | 4 |
| Depositories | 2 | 2 | 2 |
| **Stock Exchanges** | | | |
| With Equities Trading | 19** | 20 | 20 |
| With Debt Market Segment | 2 | 2 | 2 |
| With Derivative Trading | 2 | 2 | 2 |
| With Currency Derivatives | -- | 3 | 3 |
| Brokers | 9,487 | 9,628 | 9,623 |
| Corporate Brokers | 4,190 | 4,308 | 4,315 |
| Sub-brokers | 44,074 | 60,947 | 67,009 |
| FIIs | 1,319 | 1,626 | 1,668 |
| Portfolio Managers | 205 | 232 | 237 |
| Custodians | 15 | 16 | 16 |
| Registrars to an issue & Share Transfer Agents | 76 | 71 | 70 |
| Primary Dealers | 16 | 18 | 18 |
| Merchant Bankers | 155 | 134 | 140 |
| Bankers to an Issue | 50 | 51 | 52 |
| Debenture Trustees | 28 | 30 | 24 |
| Underwriters | 35 | 19 | 8 |
| Venture Capital Funds | 106 | 132 | 133 |
| Foreign Venture Capital Investors | 97 | 129 | 134 |
| Mutual Funds | 40 | 44 | 43 |
| Collective Investment Schemes | 0 | 1 | 1 |

* DCA, DEA, RBI & SEBI.

**3 Stock Exchanges, derecognised during 2007-08

*Source: SEBI*

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

## Investors

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

### Households' investment pattern

According to the preliminary estimates by Reserve Bank of India (RBI) data, net financial savings of the household sector in 2008-09 was 10.9% of GDP at current market prices which was lower that the estimates for 2007-08 at 11.5%. Decline in the household investments in shares and debentures were the main factors responsible for the lower household saving in 2008-09. However, the household savings in instruments like currency, deposits, contractual savings (pension and provident funds) and investment in government securities remained broadly stable during the year. The household sector accounted for 89.5% of the Gross Domestic Savings in Fixed Income investment instruments during 2008-09, as against 78.2% in 2007-08 **(Table 1-4).** The investment of households in securities was -1.9% compared with 10.1% in 2007-08. One of reason can be adduced to negative sentiment prevailing in the global stock markets. Chart 1-3 shows Indian household investment in different securities market avenues since 1990-91 till 2008-09. It can be observed that the household investments in government securities and mutual funds fell in the negative territory while investments in shares and debentures of Private corporates, banking and PSU Bonds was at 4.4% at par with investments last year.

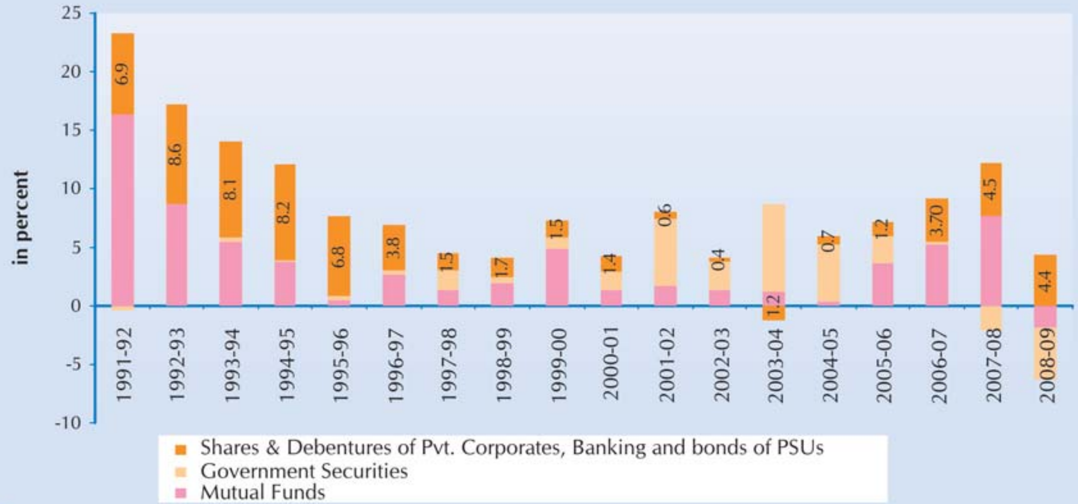
**Table 1-4: Savings of Household Sector in Financial Assets**

(In per cent)

| Financial Assets | 2004-05 | 2005-06 | 2006-07 | 2007-08 P | 2008-09# |
|---|---|---|---|---|---|
| **Currency** | **8.5** | **8.7** | **10.2** | **11.4** | **12.5** |
| **Fixed income investments** | **85.4** | **83.9** | **80.6** | **78.2** | **89.5** |
| Deposits | 37 | 47.4 | 49.10 | 52.2 | 58.5 |
| Insurance/Provident & Pension Funds | 28.9 | 24.2 | 28.80 | 27.9 | 29.6 |
| Small Savings | 19.5 | 12.3 | 2.7 | -1.9 | 1.4 |
| **Securities Market** | **6.0** | **7.2** | **6.9** | **10.1** | **-1.9** |
| Mutual Funds | 0.4 | 3.6 | 5.20 | 7.7 | -1.8 |
| Government Securities | 4.9 | 2.4 | 0.3 | -2.1 | -4.5 |
| Other Securities | 0.7 | 1.2 | 3.70 | 4.5 | **4.4** |
| **Total** | **100** | **100** | **100** | **100** | **100** |

*Source: RBI Annual Report 2008-09*
P : Provisional Figures
# Preliminary Estimates
Note: Here other securities include shares and debentures of private corporate business, banking and bonds of PSUs
Mutual funds include units of UTI

Chart 1-3: Saving of Household in Securities Market




## Issuers

### Primary markets

On the back of global financial crisis, the total resource mobilisation by the corporates fell by 31.17% to Rs.2,222,040 million (US $ 43,612 million) during 2008-09. The public issues saw a significant year-on-year fall of 82.47% while private placements saw a fall of 4.62%. Resource mobilisation through the euro issue route also dipped by 81.97% during 2008-09 compared to 2007-08.

However, the resource mobilisation by the government increased by 70.59% to Rs.4,366,880 million (US $ 85,709 million) in 2008-09 from Rs.2,559,840 million (US $ 64, 044 million) in 2007-08. This can be attributed to Government's expansionary counter cyclical fiscal policy stance of releasing stimulus packages to counter the effect of global financial crisis on the Indian economy. Details can be seen in Chapter 2, table 2-1.

Chart 1-4: Resource Mobilisation from Primary Market

During the year 2008-09, as per the provisional figures by RBI, the Euro issues* dropped by 50% to 13 from 26 in 2007-08. The amount mobilized was Rs. 47,880 million. The chart below shows that growth of Euro issues also slumped during this fiscal.

Chart 1-5: Resource Mobilisation through Euro Issues


## Intermediaries

The term "market intermediary" is usually used to refer to those who are in the business of managing individual portfolios, executing orders, dealing in or distributing securities and providing information relevant to the trading of securities. The market mediators play an important role on the stock exchange market; they put together the demands of the buyers with the offers of the security sellers. A large variety and number of intermediaries provide intermediation services in the Indian securities markets. The market intermediary has a close relationship with the investor with whose protection the Regulator is primarily tasked. As a consequence a large portion of the regulation of a securities industry is directed at the market intermediary. Regulations address entry criteria, capital and prudential requirements, ongoing supervision and discipline of entrants, and the consequences of default and failure. One of the issue concerning brokers is the need to encourage them to corporatize. Currently, more than 50% of the brokers are corporates. Corporatisation of their business would help them compete with global players in capital markets at home and abroad. Corporatisation brings better standards of governance and better transparency hence increasing the confidence level of customers.

## Regulators

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

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

* Euro issues comprises of ADR/GDR

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

## Regulatory framework

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

## Legislations

**Capital Issues (Control) Act, 1947**: The Act had its origin during the war in 1943 when the objective was to channel resources to support the war effort. It was retained with some modifications as a means of controlling the raising of capital by companies and to ensure that national resources were channeled into proper lines, i.e., for desirable purposes to serve goals and priorities of the government, and to protect the interests of investors. Under the Act, any firm wishing to issue securities had to obtain approval from the Central Government, which also determined the amount, type and price of the issue. As a part of the liberalisation process, the Act was repealed in 1992 paving way for market determined allocation of resources.

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

**Securities Contracts (Regulation) Act, 1956:** It provides for direct and indirect control of virtually all aspects of securities trading and the running of stock exchanges and aims to prevent undesirable transactions in securities. It gives Central Government regulatory jurisdiction over (a) stock exchanges through a process of recognition and continued supervision, (b) contracts in securities, and (c) listing of securities on stock exchanges. As a condition of recognition, a stock exchange complies with conditions prescribed by Central Government. Organised trading activity in securities takes place on a specified recognised stock exchange. The stock exchanges determine their own listing regulations which have to conform to the minimum listing criteria set out in the Rules.

**Depositories Act, 1996**: The Depositories Act, 1996 provides for the establishment of depositories in securities with the objective of ensuring free transferability of securities with speed, accuracy and security by (a) making securities of public limited companies freely transferable subject to certain exceptions; (b) dematerialising the securities in the depository mode; and (c) providing for maintenance of ownership records in a book entry form. In order to streamline the settlement process, the Act envisages transfer of ownership of securities electronically by book entry without making the securities move from person to person. The Act has made the securities of all public limited companies freely transferable, restricting the company's right to use discretion in effecting the transfer of securities, and the transfer deed and other procedural requirements under the Companies Act have been dispensed with.

**Companies Act, 1956:** It deals with issue, allotment and transfer of securities and various aspects relating to company management. It provides for standard of disclosure in public issues of capital, particularly in the fields of company management and projects, information about other listed companies under the same management, and management perception of risk factors. It also regulates underwriting, the use of premium and discounts on issues, rights and bonus issues, payment of interest and dividends, supply of annual report and other information.

**Prevention of Money Laundering Act, 2002:** The primary objective of the Act is to prevent money-laundering and to provide for confiscation of property derived from or involved in money-laundering. The term money-laundering is defined as whoever acquires, owns, possess or transfers any proceeds of crime; or knowingly enters into any transaction which is related to proceeds of crime either directly or indirectly or conceals or aids in the concealment of the proceeds or gains of crime within India or outside India commits the offence of money-laundering. Besides providing punishment for the offence of money-laundering, the Act also provides other measures for prevention of Money Laundering. The Act also casts an obligation on the intermediaries, banking companies etc to furnish information, of such prescribed transactions to the Financial Intelligence Unit- India, to appoint a principal officer, to maintain certain records etc.

## Rules and Regulations

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

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

## Secondary Market

Exchanges in the country, offer screen based trading system. There were 9,628 trading members registered with SEBI as at end March 2009. The market capitalization has grown over the period indicating more companies using the trading platform of the stock exchange. The All-India market capitalization was Rs. 30,929,738 million (US $ 607,061 million) at the end of March 2009. The market capitalization ratio is defined as market capitalisation of stocks divided by GDP. It is used as a measure to denote the importance of equity markets relative to the GDP. It is of economic significance since market is positively correlated with the ability to mobilize capital and diversify risk. The All- India market capitalisation ratio decreased to 58.11 % in 2008-09 from 109.26 % in 2007-08. NSE Market Capitalisation ratio fell to 54.42% during 2008-09 while BSE Market Capitalisation ratio was 58.00 %.

The trading volumes on stock exchanges in equity segment have been witnessing phenomenal growth over the past years. The trading volume, which peaked at Rs.28,809,900 million (US $ 617,708 million) in 2000-01, posted a substantial fall of 68.91 % to Rs.8,958,180 million (US $ 183,569 million) in 2001-02. However, from 2002-03 onwards the trading volumes picked up. It stood at Rs.9,689,098 million (US $ 203,981 million) in 2002-03 and further witnessed a year-on-year increase of 67.29 % in 2003-04 standing at Rs.16,209,326 million (US $ 373,573 million). The upsurge continued and in 2006-07, the turnover showed an increase of 21.40 % to Rs.29,014,715 million (US $ 665,628 million) from Rs.23,901,030 million (US $ 535,777 million) in 2005-06. During 2007-08, the trading volumes on the CM segment of Exchanges increased significantly by 76.83% to Rs.51,308,160 million (US $ 1,283,667 million). During 2008-09, the all India turnover dipped by 24.91% for equity segment and the all-India market capitalisation decreased by 39.94% compared to 2007-08 (**Table 1-5 and Chart 1-6**).

**Table 1-5: Secondary Market - Selected Indicators**

| At the End of Financial Year | Capital Market Segment of Stock Exchanges | | | | | | | | | Non-Repo Government Sec Turnover | | | | Derivatives | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Brokers | Nifty 50 | Sensex | Market Capitalisation (Rs. mn) | Market Capitalisation (US $ mn) | Market Capitalisation Ratio (%) | Turnover(Rs.mn) | Turnover(US $ mn) | Turnover Ratio (%) | On WDM Segment of NSE (Rs.mn) | On SGL (Rs.mn) | On WDM Segment of NSE (US $ mn) | On SGL (US $.mn) | Turnover (Rs. Mn) | Turnover (US $ mn) |
| 1995-96 | 8,476 | 985.30 | 3366.61 | 5,722,570 | – | 47.00 | 2,273,680 | – | 39.70 | 92,433 | 295,300 | – | – | – | – |
| 1996-97 | 8,867 | 968.85 | 3360.89 | 4,883,320 | – | 34.60 | 6,461,160 | – | 132.30 | 381,023 | 939,210 | – | – | – | – |
| 1997-98 | 9,005 | 1116.65 | 3892.75 | 5,898,160 | – | 37.70 | 9,086,810 | – | 154.10 | 975,152 | 1,610,900 | – | – | – | – |
| 1998-99 | 9,069 | 1078.05 | 3739.96 | 5,740,640 | 135,295 | 34.10 | 10,233,820 | 241,191 | 178.30 | 904,158 | 1,875,310 | 21,309 | 44,197 | – | – |
| 1999-00 | 9,192 | 1528.45 | 5001.28 | 11,926,300 | 273,410 | 84.70 | 20,670,310 | 473,867 | 173.30 | 2,915,915 | 4,564,910 | 66,847 | 104,651 | – | – |
| 2000-01 | 9,782 | 1148.20 | 3604.38 | 7,688,630 | 164,851 | 54.50 | 28,809,900 | 617,708 | 374.71 | 4,124,958 | 5,721,456 | 88,442 | 122,673 | 40,180 | 861 |
| 2001-02 | 9,687 | 1129.55 | 3469.35 | 7,492,480 | 153,534 | 36.36 | 8,958,180 | 183,569 | 119.56 | 9,269,955 | 12,119,658 | 189,958 | 248,354 | 1,038,480 | 21,280 |
| 2002-03 | 9,519 | 978.20 | 3048.72 | 6,319,212 | 133,036 | 28.49 | 9,689,098 | 203,981 | 153.33 | 10,305,497 | 13,923,834 | 216,958 | 293,133 | 4,423,333 | 93,123 |
| 2003-04 | 9,368 | 1771.90 | 5590.60 | 13,187,953 | 303,940 | 52.25 | 16,209,326 | 373,573 | 122.91 | 12,741,190 | 17,013,632 | 293,643 | 392,110 | 21,422,690 | 493,724 |
| 2004-05 | 9,128 | 2035.65 | 6492.82 | 16,984,280 | 388,212 | 54.41 | 16,668,960 | 381,005 | 98.14 | 8,493,250 | 12,608,667 | 194,131 | 288,198 | 25,641,269 | 586,086 |
| 2005-06 | 9,335 | 3402.55 | 11280.00 | 30,221,900 | 677,469 | 85.58 | 23,901,030 | 535,777 | 79.09 | 4,508,016 | 7,080,147 | 101,054 | 158,712 | 48,242,590 | 1,081,430 |
| 2006-07 | 9,443 | 3821.55 | 13,072.10 | 35,488,081 | 814,134 | 86.02 | 29,014,715 | 665,628 | 81.76 | 2,053,237 | 3,982,988 | 47,103 | 91,374 | 74,152,780 | 1,701,142 |
| 2007-08 | 9,487 | 4734.50 | 15644.44 | 51,497,010 | 1,288,392 | 109.3 | 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 | 58.12 | 38,520,970 | 756,054 | 124.54 | 2,911,124 | 6,645,488 | 57,137 | 130,432 | 110,227,501 | 2,163,445 |

*Note: Turnover figures for the respective year.*

**Chart 1-6: Growth of All India Turnover and Market Capitalisation**


The relative importance of various stock exchanges in the market has undergone dramatic changes over a decade. The increase in turnover took place mostly at the big stock exchanges. The NSE yet again registered as the market leader with 90.27 % of total turnover (volumes on all segment) in 2008-09. Top 2 stock exchanges accounted for 99.99 % of turnover, while the rest 19 stock exchanges had negligible volumes during 2008-09 (Table 1-6).

### Table 1-6: Growth and Distribution of Turnover on Stock Exchanges

| | Stock Exchanges | 2007-08 (Rs.mn) | 2008-09 (Rs.mn) | 2008-09 (US $ mn) |
|---|---|---|---|---|
| 1 | NSE | 169,238,329 | 140,984,566 | 2,767,116 |
| 2 | BSE | 18,233,239 | 11,128,204 | 218,414 |
| 3 | Calcutta | 4,460.00 | 3,930 | 77.13 |
| 4 | Delhi | 0 | 0 | 0 |
| 5 | Ahmedabad | 0 | 0 | 0 |
| 6 | Uttar Pradesh | 4,750.00 | 890 | 17.47 |
| 7 | Ludhiana | 0 | 0 | 0 |
| 8 | Pune | 0 | 0 | 0 |
| 9 | Bangalore | 0 | 0 | 0 |
| 10 | Hyderabad* | 0 | 0 | 0 |
| 11 | ICSE/ISE | 0 | 0 | 0 |
| 12 | Cochin | 0 | 0 | 0 |
| 13 | OTCEI | 0 | 0 | 0 |
| 14 | Madras | 0 | 0 | 0 |
| 15 | Madhya Pradesh | 0 | 0 | 0 |
| 16 | Magadh* | 0 | 0 | 0 |
| 17 | Vadodara | 0 | 0 | 0 |
| 18 | Gauhati | 0 | 0 | 0 |
| 19 | Bhubaneshwar | 0 | 0 | 0 |
| 20 | Coimbatore | 0 | 0 | 0 |
| 21 | SKSE* | 0 | 0 | 0 |
| 22 | Mangalore* | 0 | 0 | 0 |
| 23 | Jaipur | 0 | 0 | 0 |
| | **Total** | **187,480,778** | **152,117,591** | **3,805,794** |

* 4 Stock Exchanges derecognised

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

### Shareholding Pattern

In the interest of transparency, the issuers are required to disclose shareholding pattern on a quarterly basis. **Table1-7** presents the sectorwise shareholding pattern of the companies listed at NSE at end June 2009. It is observed that on an average the promoters held 57.90% of the total shares while non-promoters holding was 42.10%. Individuals held 13.05% and the institutional holding (FIIs, MFs, VCFs-Indian and Foreign) accounted for 12.49%.

In 2009, Sebi made it mandatory for promoters of listed companies to disclose the amount of shares they had pledged. **Table 1-8** shows that around 8.23% of the total shares held by promoters are pledged.

**Table 1-8: Sectorwise Pledged Shares of Promoters for Companies Listed at NSE (at the end of June 2009)**

| Sectors | Indian Promoters | Foreign Promoters | Total Promoters Holding | Shares pledged | %age of pledged shares |
|---|---|---|---|---|---|
| Banks | 5,693,785,875 | 135,953,411 | 5,829,739,286 | 631,364 | 0.01 |
| Engineering | 395,931,120 | 29,255,809 | 425,186,929 | 35,115,085 | 8.26 |
| Finance | 4,226,364,846 | 203,129,619 | 4,429,494,465 | 80,944,685 | 1.83 |
| FMCG | 1,722,854,379 | 1,533,966,859 | 3,256,821,238 | 281,754,281 | 8.65 |
| Information Technology | 5,004,766,780 | 807,021,164 | 5,811,787,944 | 430,915,492 | 7.41 |
| Infrastructure | 23,834,328,988 | 495,050,651 | 24,329,379,639 | 2,052,791,367 | 8.44 |
| Manufacturing | 28,418,434,239 | 5,390,947,568 | 33,809,381,807 | 3,094,863,984 | 9.15 |
| Media & Entertainment | 1,943,937,497 | 171,544,574 | 2,115,482,071 | 286,494,528 | 13.54 |
| Petrochemicals | 2,464,161,060 | 142,578,781 | 2,606,739,841 | 454,363,913 | 17.43 |
| Pharmaceuticals | 13,471,382,385 | 1,566,992,681 | 15,038,375,066 | 639,437,511 | 4.25 |
| Services | 2,637,948,962 | 895,031,497 | 3,532,980,459 | 237,963,995 | 6.74 |
| Telecommunication | 2,715,791,331 | 870,584,760 | 3,586,376,091 | 395,222,714 | 11.02 |
| Miscellaneous | 6,902,262,539 | 1,022,176,474 | 7,924,439,013 | 1,289,946,617 | 16.28 |
| **TOTAL** | | | **112,696,183,849** | **9,280,445,536** | **8.23** |

### Government Securities

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

### Derivatives Market

The number of instruments available in derivatives has been expanded. To begin with, SEBI only approved trading in index futures contracts based on Nifty 50 Index and BSE-30 (Sensex) Index. This was followed by approval for trading in options based on these indices and options on individual securities. The total exchange traded derivatives in Indian stock markets witnessed a value of Rs.110,227,500 million (US $ 2,163,445 million) during 2008-09 as against Rs. 133,327,869 million (US $ 3,335,698 million) during the preceding year.

NSE proved itself as the market leader contributing 99 % of the total turnover in 2008-09 in India. Not only in Indian scenario, but also in the global market NSE has created a niche for itself in terms of derivatives trading in various instruments (discussed in detail with statistics in chapter 7 on derivatives of this publication).

### Index Movement

The bluechip index of the NSE Nifty 50 is presented in Chart 1-7. The index movement has been responding to changes in the governments economic policies, the increase in FII inflows etc. However, during the year 2008-09, the Nifty

**Table: 1-7: Shareholding Pattern at the end of June 2009 for Companies Listed at NSE**

(In per cent)

| Sectors | Promoters | | Public | | | | | | | | Shares held by Custodians and against which Depository Receipts have been issued |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Institutional | | | | | Non - Institutional | | | |
| | Indian Promoters | Foreign Promoters | Financial Institutions/ Banks/ Central Government/ State Government/ Insurance Companies | Foreign Institutional Investors | Mutual Funds | Venture Capital Funds including Foreign Venture Capital Funds | Any Other | Bodies Corporate | Individuals | Any Other | |
| Banks | 45.62 | 1.09 | 9.70 | 15.05 | 3.75 | 0.00 | 0.56 | 5.44 | 13.51 | 1.07 | 4.22 |
| Engineering | 26.56 | 1.96 | 10.61 | 8.88 | 10.64 | 0.00 | 0.63 | 8.56 | 22.40 | 8.54 | 1.22 |
| Finance | 43.67 | 2.10 | 8.12 | 15.04 | 3.37 | 0.01 | 1.10 | 6.20 | 14.86 | 5.00 | 0.52 |
| FMCG | 18.04 | 16.07 | 12.59 | 12.87 | 7.88 | 0.00 | 0.00 | 5.22 | 13.30 | 13.65 | 0.38 |
| Information Technology | 43.32 | 6.98 | 2.77 | 11.46 | 2.32 | 0.17 | 0.18 | 7.40 | 17.09 | 5.45 | 2.87 |
| Infrastructure | 71.94 | 1.49 | 3.40 | 9.02 | 2.65 | 0.03 | 0.02 | 3.58 | 6.51 | 1.18 | 0.17 |
| Manufacturing | 47.84 | 9.08 | 6.42 | 7.79 | 3.23 | 0.05 | 0.28 | 6.39 | 15.28 | 2.32 | 1.32 |
| Media & Entertainment | 53.09 | 4.69 | 2.26 | 9.17 | 6.08 | 0.00 | 0.00 | 8.74 | 13.46 | 1.72 | 0.78 |
| Petrochemicals | 57.54 | 6.69 | 4.22 | 4.50 | 2.35 | 0.51 | 0.26 | 5.93 | 11.29 | 2.49 | 4.21 |
| Pharmaceuticals | 39.32 | 13.34 | 4.72 | 7.66 | 3.45 | 0.19 | 0.04 | 7.31 | 19.49 | 3.43 | 1.04 |
| Services | 43.73 | 14.02 | 5.52 | 8.07 | 3.57 | 0.19 | 0.00 | 7.31 | 13.49 | 3.32 | 0.79 |
| Telecommunication | 54.16 | 8.02 | 4.94 | 7.05 | 1.75 | 0.00 | 0.05 | 3.67 | 9.75 | 9.94 | 0.67 |
| Miscellaneous | 47.38 | 2.74 | 2.12 | 7.94 | 3.13 | 0.01 | 0.12 | 9.91 | 19.37 | 6.67 | 0.62 |
| Number of Shares | 99,431,950,001 | 13,264,233,848 | 11,086,031,724 | 17,349,790,728 | 6,380,821,507 | 204,899,209 | 454,891,125 | 11,377,779,363 | 25,467,705,334 | 7,144,065,546 | 3,055,279,526 |
| % to Total Number of Shares | 50.93 | 6.79 | 5.68 | 8.89 | 3.27 | 0.10 | 0.23 | 5.83 | 13.05 | 3.66 | 1.57 |

Index witnessed volatility of 2.66%. The point to point return of Nifty was 36.19%.

Chart 1-7: Nifty 50


## Recent initiatives and developments in Indian Securities Markets

| | |
|---|---|
| **Introduction of Application Supported by Blocked Amount (ASBA)**<br><br>**(April 2008)** | SEBI introduced the Application Supported by Blocked Amount (ASBA) as a new mode of payment in public issues. In this kind of mechanism the application money remains blocked in the bank account of the applicant till the allotment is finalized. |
| **Direct Market Access**<br><br>**(April 2008)** | Direct Market Access facility was introduced for institutional investors in April 2008 by SEBI. |
| **Margining of Institutional Trades in Cash Market**<br><br>**(May 2008)** | In an endeavour to strengthen the risk management framework, margining for institutional trades was made mandatory by SEBI. |
| **Corporate Debt Market Initiatives**<br><br>**(May 2008 and June 2008)** | ▪ Notification of Listing of Securitized Debt Instruments Regulations in May 2008.<br>▪ Notification of Issue and Listing of Debt Securities Regulations in June 2008. |
| **Reduction in time for Rights Issues**<br><br>**(2009)** | To eliminate risks faced by issuers and investors and to enable listed companies to raise funds from its shareholders, time taken for completion of rights issues was reduced from 16 weeks to 6 weeks. |
| **Disclosure of Pledged Shares by Promoters/ Promoter Group in Listed Companies**<br><br>**January 2009** | Clause 35 and Clause 41 of listing agreement was amended to provide for disclosure of details of shares held by promoters and promoter group entities in listed companies which are pledged. |

| | |
|---|---|
| **New provisions introduced in Clause 49 to enhance Corporate Governance standards for listed companies** | To enhance the standards of corporate governance, new provisions were included in clause 49 of listing agreement. These requirements were:<br>(i) Having at least one-half of the board as non-independent directors if the non-executive chairman of the company is a promoter or is related to promoters or persons occupying management positions.<br>(ii) Minimum age limit of 21 years for independent directors.<br>(iii) Specifying the maximum time gap i.e. 180 days between the retirement and resignation of an independent director and appointment of another independent director in his place<br>(iv) Requiring the listed companies to disclose the inter-se relationship between the directors in the filing made with stock exchanges. |
| **Changes in SLB Scheme**<br>**(October 2009)** | The Securities Lending and Borrowing (SLB) Scheme was introduced in April 2008 and various modifications were made pursuant to the feedback received from market participants. These modifications include increasing the tenure and duration of SLB sessions, allowing margins in cash and cash equivalent form for SLB and providing clarification for dealing with corporate actions. |
| **Launch of Currency Futures**<br>**(August 2008)** | Currency Futures were launched on USD-INR pair in India in August 2008 by NSE, and in October 2008 by BSE and MCX. |
| **Removal of quantitative restrictions imposed on the Overseas Derivatives Instruments (ODIs) for FII**<br>**(October 2008)** | The quantitative restrictions imposed on the ODI issuance capabilities and restrictions on ODI were removed from October 7, 2008.<br>SEBI issued a disapproval note on the activity of FIIs which had the effect of lending of shares abroad in an OTC market, an activity which was not allowed onshore |
| **Exit Option to Regional Stock Exchanges (RSEs)**<br>**December 2008** | SEBI put in place broad guidelines for exit option for RSEs whose recognition was withdrawn/ refused by SEBI or for RSEs who wanted to surrender their recognition |
| **Listing of Close-ended schemes for Mutual Funds**<br>**(December 2008)** | Listing of close-ended schemes launched on or after December 12, 2008 along with daily computation of NAV was made compulsory. |
| **Launch of IRFs**<br>**(August 2009)** | SEBI permitted NSE to launch Interest Rate Futures on August 31, 2009. |
| **Issue of Capital and Disclosure Requirements (ICDR) Regulations 2009**<br>**September 2009** | In September 2009, the SEBI issued Issue of Capital and disclosure requirements (ICDR) Regulations 2009 replacing the Disclosure and Investor Protection (DIP) Guidelines 2000. ICDR would govern all disclosure norms regarding securities and no changes to this can now be made without the consent of SEBI. |

### Role of NSE in Indian Securities Market

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

*"A Stock Exchange fulfills a vital function in the economic development of a nation: its main function is to 'liquify' capital by enabling a person who has invested money in, say a factory or railway, to convert it into cash by disposing off his shares in the Investment in Joint stock companies is attractive to the public, because the value of the shares is announced day after day in the stock exchanges, and shares quoted on the exchanges are capable of almost immediate conversion into money. In modern days a company stands little chance of inducing the public to subscribe to its capital, unless its shares are quoted in an approved stock exchange. All public companies are anxious to obtain permission from*

*reputed exchanges for securing quotations of their shares and the management of a company is anxious to inform the investing public that the shares of the company will be quoted on the stock exchange".*

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

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

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

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

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

NSE provides a trading platform for of all types of securities-equity and debt, corporate government and derivatives. On its recognition as a stock exchange under the Securities Contracts (Regulation) Act, 1956 in April 1993, it commenced operations in the Wholesale Debt Market (WDM) segment in June 1994, in the Capital Market (CM) segment in November 1994, in Futures & Options (F&O) segment in June 2000 and Currency Derivatives Segment (CDS) in August 2008. The Exchange started providing trading in retail debt of Government Securities in January 2003.

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

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

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

NSEs **Currency Derivatives** segment provides trading on currency futures contracts on the USD-INR and other currency pairs which commenced on August 29, 2008 and interest rate futures were allowed for trading in this segment on August 31, 2009

**Market Segments – Selected Indicators**

| 2008-09 | | | | |
|---|---|---|---|---|
| **Segment** | **No. of Securities Available** | **Market Capitalisation (Rs. mn.)** | **Trading Volume (Rs. mn.)** | **Market Share (%)** |
| **CM** | 1,283[a] | 28,961,940 | 27,520,230 | 71 |
| **WDM** | 3,954 | 28,483,150 | 3,339,515 | 43[b] |
| **F&O** | 19,480[c] | – | 110,104,821[d] | 99 |
| **CDS** | – | – | 162,272 | 52 |
| **Total** | **27,717** | **57,445,090** | **140,698,447** | **92.52[e]** |

a. Excludes suspended securities.
b. Share in SGL (Turnover of WDM pertains to G-secs)
c. 3 Nifty index futures, 3 CNX IT futures, 3 Bank Nifty futures, 3 CNX 100 futures, 3 Nifty Junior Index Futures, 3 Nifty Midcap 50 futures, 3 Mini Nifty Futures, 520 Nifty index options, 681 stock futures, 124 CNX IT options, 296 Bank Nifty options, 146 CNX 100 options, 312 Nifty Junior Index options, 112 Nifty Midcap 50 options, 142 Mini Nifty Options, 21,094 stock options and 18 interest rate futures contracts.
d. includes notional turnover [(strike price + premium) × quantity] in index options and stock options.
e. Share in turnover on all exchanges.
f. Trading value of currency futures (CDS) is for period of Aug'09 - Mar'09.

## Technology and Application Systems in NSE

Technology has been the backbone of the Exchange. Providing the services to the investing community and the market participants using technology at the optimum possible cost has been its main thrust. NSE chose to harness technology in creating a new market design. It believes that technology provides the necessary impetus for the organisation to retain its competitive edge and ensure timeliness and satisfaction in customer service. In recognition of the fact that technology will continue to redefine the shape of the securities industry, NSE stresses on innovation and sustained investment in technology to remain ahead of competition. NSE is the first exchange in the world to use satellite communication technology for trading. It uses satellite communication technology to energize participation from about 2648 VSATs from nearly 201 cities spread all over the country.

**The list of towns and cities and the state-wise distribution of VSATs as at end March 2009 is presented in (Table 1-9).**

**Table 1-9: List of Cities and VSATs at the end of March 2009**

| States | List of Towns and Cities | Total no. of Cities. | Total no. of Vsats |
|---|---|---|---|
| ANDHRA PRADESH | Guntur, *Hyderabad, Kakinada, Kukatpally, Narsapur, Palakol, Rajamundry, Secundarabad, Tadepalligudem, Tanuku, Tenali, Vijayawada, Vizag | 13 | 105 |
| ASSAM | *Guwahati, Silchar | 2 | 3 |
| BIHAR | Begusarai, Bhagalpur, Muzzaffarpur, *Patna,Sitamarhi, | 5 | 14 |
| CHHATTISGARH | Raipur | 1 | 4 |
| DELHI | *Delhi | 1 | 561 |
| GOA | Panaji, Margao | 2 | 2 |
| GUJARAT | *Ahmedabad, Anand *Baroda, Bhavnagar, Bhuj, Botad, Dhoraji, Dhrangadhra, Gandhinagar, Jamnagar, Junagadh, Mehsana, Nadiad, Navsari, Patan, Petlad, *Rajkot, Surat, Surendranagar, Unjha, Valsad. | 20 | 194 |
| HARYANA | Ambala , Bahadurgarh, Bhiwani, Fatehabad, Faridabad, Gurgaon, Hissar, Kaithal, Karnal, Kurukshetra, Mohindergarh, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonepat, Yamuna Nagar, Gohana, | 19 | 99 |
| HIMACHAL PRADESH | Parwanoo | 1 | 1 |
| JAMMU & KASHMIR | Jammu, Srinagar | 2 | 4 |
| JHARKHAND | Bokaro Steel City, Giridih, Ranchi, Jamshedpur | 4 | 13 |
| KARNATAKA | *Bangalore, Davangere, Hubli, Kumta, *Mangalore, Mysore, Sagar, Udupi | 8 | 66 |
| KERALA | Angamaly, Calicut, Ernakulam, Irinjalakuda, Kannur, *Kochi, Kodungallore, Kollam, Kottayam, Muvattupuzha, Pala, Palakad, Pathanamthitta, Thalassery, Thiruvalla, Thrissur, Thodupuzha, Thiruva nanthapuram(Trivandrum) | 18 | 69 |
| MADHYA PRADESH | Bhilai, Bhopal, Gwalior, *Indore, Jabalpur, Neemuch, Ratlam, Satna, Ujjain | 9 | 57 |
| MAHARASHTRA | Ahmednagar, Akola, Amravati, Chiplun, Ichalkaranji , Jalgaon, Kolhapur, Kopargaon, *Mumbai, Nagpur, Nashik, *Pune, Solapur, | 13 | 740 |
| ORISSA | *Bhubaneshwar, Cuttack | 2 | 4 |
| PUNJAB | Amritsar, Bathinda, Chandigarh, Fazilka, Faridkot, Hoshiyarpur, Jalandhar, *Ludhiana, Mansa, Moga, Mohali, Muktasar, Nabha, Pathankot, Patiala, Kotkapura, Batala, Kapurthala | 18 | 72 |
| RAJASTHAN | Ajmer, Alwar, Bhilwara, Bikaner, Falna, *Jaipur, Jodhpur, Kota, Udaipur, Makrana, Nokha, Beawar, Sadarsahar, Pali, **Phalodi | 15 | 106 |
| TAMIL NADU | *Chennai, *Coimbatore, Erode, Karaikal, Karaikudi, Karur, Kumbakonam, Madurai, Nagercoil, Namakkal, Neyveli, Salem, Thanjavur, Tirunelveli, Trichy, Tuticorin, Hosur, Vellore, Gudiyatham, Dharapuram, Pollachi, | 21 | 161 |
| UTTAR PRADESH | Agra, Aligarh, Allahabad, Bareilly, Gorakhphur, Ghaziabad, Jhansi, *Kanpur, Lucknow, Mathura, Meerut, Moradabad, Muzzafararnagar, Rishikesh, Roorkee, Saharanpur, Varanasi, Bulandshar, Kashipur, Sahibabad, | 20 | 95 |
| UTTARANCHAL | Dehradun, Rudrapur, Sitarganj | 3 | 7 |
| WEST BENGAL | Asansol, *Kolkata, Siliguri, Hooghly | 4 | 271 |
| | | 201 | 2648 |

*Indicates cities which have a Regional Stock Exchange
**Indicates cities added in this month

Its trading system, called National Exchange for Automated Trading (NEAT), is a state of-the-art client server based application. At the server end all trading information is stored in an in-memory database to achieve minimum response time and maximum system availability for users. It has uptime record of 99.999%. For orders entered by the user, the response time within trading system is around 10ms. NSE has been continuously undertaking capacity enhancement measures so as to effectively meet the requirements of increased users and associated trading loads. NSE has also put in place NIBIS (NSEs Internet Based Information System) for on-line real-time dissemination of trading information over the Internet.

As part of its business continuity plan, NSE has established a disaster back-up site at Chennai along with its entire infrastructure, including the satellite earth station and the high-speed optical fiber link with its main site at Mumbai. This site at Chennai is a replica of the production environment at Mumbai. The transaction data is backed up on near real time basis from the main site to the disaster back-up site through the 2 STM-4 (1.24 GB) high-speed links to keep both the sites all the time synchronized with each other. The various application systems that NSE uses for its trading as well clearing and settlement and other operations form the backbone of the Exchange. The application systems used for the day-to-day functioning of the Exchange can be divided into (a) Front end applications and (b) Back office applications.

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

In the front office, there are 7 applications:

| | |
|---|---|
| ***NEAT – CM*** | NEAT-CM system takes care of trading of securities in the Capital Market segment that includes equities, debentures/notes as well as retail Gilts. The NEAT – CM application has a split architecture wherein the split is on the securities and users. The application runs on three Stratus systems with Open Strata Link (OSL). The application has been benchmarked to support 60,000 users and handle more than 100 million trades daily. This application also provides data feed for processing to some other systems like Index, OPMS through TCP/IP. This is a direct interface with the trading members of the CM segment of the Exchange for entering the orders into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member. |
| ***NEAT – WDM*** | NEAT-WDM system takes care of trading of securities in the Wholesale Debt Market (WDM) segment that includes Gilts, Corporate Bonds, CPs, T-Bills, etc. This is a direct interface with the trading members of the WDM segment of the Exchange for entering the orders/trades into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member. |
| ***NEAT – F&O*** | NEAT-F&O system takes care of trading of securities in the Futures and Options (F&O) segment that includes Futures on Index as well as individual stocks and Options on Index as well as individual stocks. This is a direct interface with the trading members of the F&O segment of the Exchange for entering the orders into the main system. There is a two way communication between the NSE main system and the front end terminal of the trading member. |
| ***NEAT – IPO*** | Neat-IPO system is an interface to help the initial public offering of companies which are issuing the stocks to raise capital from the market. This is a direct interface with the trading members of the CM segment who are registered for undertaking order entry on behalf of their clients for IPOs. NSE uses the NEAT IPO system that allows bidding in several issues concurrently. There is a two way communication between the NSE main system and the front end terminal of the trading member. |

| | |
|---|---|
| ***NEAT – MF*** | NEAT – MF system is an interface with the trading members of the CM segment for order collection of designated Mutual Funds units |
| ***NEAT- CD*** | NEAT- CD *system provides interface for trading in currency derivatives and Interest Rate Futures* |
| ***NEATPLUS*** | NSE is offering a multi-market front end application NEATPlus to its members. This application provides a common trading platform to NSE members to trade in Capital Market as well as Futures and Options Market segments at NSE. Members can take login in CM and F&O segments in a single terminal with ability to monitor and trade in Equity securities as well as Equity derivatives from single screen. Members can use the existing VSAT/Leased Line connectivity for accessing the NEATPlus application. Multiple market watch screens with Excel like features, ability to select various fonts, customizable color schemes and themes are some of the other salient features of the NEATPlus application. |

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

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

| | |
|---|---|
| **Nationwide Clearing and Settlement System (NCSS)** | NCSS is the clearing and settlement system of the NSCCL for the trades executed in the CM segment of the Exchange. The system has 3 important interfaces – OLTL (Online Trade loading) that takes each and every trade executed on real time basis and allocates the same to the clearing members, Depository Interface that connects the depositories for settlement of securities and Clearing Bank Interface that connects the 13 clearing banks for settlement of funds. It also interfaces with the clearing members for all required reports. Through collateral management system it keeps an account of all available collaterals on behalf of all trading/ clearing members and integrates the same with the position monitoring of the trading/clearing members. The system also generates base capital adequacy reports. |
| **Future and Options Clearing and Settlement System (FOCASS)** | FOCASS is the clearing and settlement system of the NSCCL for the trades executed in the F&O segment of the Exchange. It interfaces with the clearing members for all required reports. Through collateral management system it keeps an account of all available collaterals on behalf of all trading/clearing members and integrates the same with the position monitoring of the trading/clearing members. The system also generates base capital adequacy reports. |
| **Currency Derivatives Clearing and Settlement System (CDCSS)** | CDCSS is the clearing and settlement system for trades executed in the currency derivative segment. Through collateral management system it keeps an account of all available collateral on behalf of all trading /clearing members and integrates the same with the position monitoring of the trading/clearing members. The System also generates base capital adequacy report. |
| **Surveillance system** | Surveillance system offers the users a facility to comprehensively monitor the trading activity and analyze the trade data online and offline. |
| **Online Position Monitoring System (OPMS)** | OPMS is the online position monitoring system that keeps track of all trades executed for a trading member vis-à-vis its capital adequacy. |

| | |
|---|---|
| **Parallel RISk Monitoring System (PRISM)** | PRISM is the parallel risk management system for F&O trades using Standard Portfolio Analysis (SPAN). It is a system for comprehensive monitoring and load balancing of an array of parallel processors that provides complete fault tolerance. It provides real time information on initial margin value, mark to market profit or loss, collateral amounts, contract-wise latest prices, contract-wise open interest and limits. The system also tracks online real time client level portfolio base upfront margining and monitoring. |
| **Parallel RISk Monitoring System – Currency Derivatives (PRISM-CD)** | PRISM-CD is the risk management system of the currency derivatives segment. It is similar in features to the PRISM of F&O Segment. |
| **Data warehousing** | Data warehousing that is the central repository of all data in CM as well as F&O segment of the Exchange. |
| **Listing system** | Listing system captures the data from the companies which are listed in the Exchange for corporate governance and integrates the same to the trading system for necessary broadcasts for data dissemination process. |
| **Membership system** | Membership system that keeps track of all required details of the Trading Members of the Exchange. |

The exchange operates and manages a nationwide network. This network includes 9 POPs (Points of Presence) setup across the country and catering to 2900+ leased lines. All the POP's are connected to DC and DR over high Speed links (Mainly STM's). All the members are given a 2mb point to point connection to the nearest POP. All the members have a choice of selecting the POP's based on their office location. Also there are plans to setup additional POPs based on member requirements. The old X.25 VSAT and Leased Line network has been decommissioned completely.

NSE's existing POPs are build on highly redundant infrastructure connecting to Core and DR setup via high speed redundant backbone links from multiple service providers. Mini POP with low connectivity requirement is fully owned and operated by NSE is proposed to be built in with redundant Infrastructure at Rajkot. Member links would terminate at Mini POP and the traffic would be routed via a dual backbone pipe to nearby Mini POP.

In keeping up with the global trends the Exchange is providing to its members a co-location facility for their DMA and ALGO IT infrastructure at NSEIL premises in BKC shortly

### NOW

NSE is also offering internet based trading services to NSE members. This facility is branded as NOW 'Neat on Web'. NOW provides an internet portal for NSE members and their authorized clients to transact orders and trades to the various market of NSE viz. CM, F&O and Currency. The members can also access NOW through their existing VSAT/ Leased line, in addition to internet links. The various features provided by NOW are (a) comprehensive Administration features, flexible risk management system, high speed dealer terminals and online trading facility for investors.

# Primary Market

## Introduction

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

### Trends

The issuers mobilize resources through public issues and private placements. The resources, raised by them from domestic as well as international markets, are presented in (Table 2-1). The total resources mobilized through Corporate and Government securities during 2008-09 increased by 13.80 % over the previous year. The resources mobilized amounted to Rs. 6,588,920 million (US $ 129,321 million) as against Rs. 5,789,720 million (US $ 144, 852 million) in 2007-08. This chapter presents developments in primary market for corporate securities in India, both equity and debt, while the primary market for government securities is discussed separately in Chapter 6.

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

| Issues | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
|---|---|---|---|---|
| | (Rs. mn) | | (US $ mn) | |
| **Corporate Securities** | **3,229,880** | **2,222,040** | **80,808** | **43,612** |
| Domestic Issues | 2,964,320 | 2,174,160 | 74,164 | 42,672 |
| Public Issues | 837,070 | 146,710 | 20,942 | 2,879 |
| Non-Govt. Public Companies | 636,380 | 146,710 | 15,921 | 2,879 |
| PSU Bonds | -- | -- | -- | -- |
| Govt. Companies | 25,160 | -- | 629 | -- |
| Banks & FIs | 175,530 | -- | 4,392 | -- |
| Private Placement | 2,127,250 | 2,027,450 | 53,221 | 39,793 |
| Euro Issues | 265,560 | 47,880 | 6,644 | 940 |
| **Government Securities** | **2,559,840** | **4,366,880** | **64,044** | **85,709** |
| Central Government | 1,882,050 | 3,185,500 | 47,087 | 62,522 |
| State Governments | 677,790 | 1,181,380 | 16,957 | 23,187 |
| **Total** | **5,789,720** | **6,588,920** | **144,852** | **129,321** |

*Source: RBI Annual Report 2008-09*

-- : Nil/Negligible

## Corporate Securities

The primary markets for corporate securities displayed a downward move in 2008-09. Resources raised through public issues witnessed a huge slump of 82.47% from Rs. 837,070 million (US $ 20,942 million) to Rs.146,710 million (US $ 2,879 million) in 2007-08. It accounted for a mere 6.75 % of the total resources mobilized domestically, Though the private placements also decreased by 4.69 % it accounted for 93.25% of the resources mobilized in the domestic market.

The resources raised by Indian corporates from the international capital market through the issuance of FCCBs, GDRs and ADRs also witnessed a significant decrease of 81.97% during 2008-09 raising Rs. 47,880 million (US $ 940 million) as against Rs. 265,560 million.(US $ 6,644 million) in the previous year.

# Policy Developments

### I) Amendments to SEBI (Employee Stock Option Scheme and Employee Stock Purchase Scheme) Guidelines, 1999.

SEBI notified the amendments to (Employee Stock Option Scheme and Employee Stock Purchase Scheme) Guidelines, 1999 (SEBI (ESOS & ESPS) Guidelines) vide their circular dated August 04, 2008. These amendments were made with respect to the eligibility of nominee directors for ESOS and accounting treatment for options granted under graded vesting schemes.

As per the previous guidelines an employee (including a director of a company / its holding company / its subsidiary, whether such director is a whole-time director or not) is eligible to participate in the ESOS of the company only if :-

- the employee is not a promoter
- does not belong to the promoter group
- is not a director, who, either by himself or through his relative or through any body corporate, directly or indirectly holds more than 10% of the outstanding equity shares of the company.

Under the amendment it has been clarified that a director, nominated by an institution as its representative on the Board of Directors of a company, is eligible to participate in the ESOS of the company, if the contract / agreement entered into between the nominating institution and the director so appointed specifically provides for acceptance of ESOS of the company by such director and a copy thereof is filed with the company.

The accounting treatment for options granted under graded vesting schemes as per the SEBI (ESOS & ESPS) Guidelines, stated that where an employee stock option scheme provides for graded vesting of options, the vesting period is determined separately for each portion of the option and the accounting value of each such portion is amortised on a straight-line basis over the vesting period of that portion.

The Institute of Chartered Accountants of India (ICAI), which also prescribes the accounting treatment for employee stock options through its guidance note on "Employee Shared Based Payments", had vide its announcement issued in March 2007, revised the accounting treatment, reorganisation and measurement of options granted under graded vesting schedule. In this regard the SEBI (ESOS & ESPS) Guidelines have been amended to bring the accounting treatment prescribed by SEBI, for options granted under graded vesting, in line with the accounting treatment provided by ICAI.

### II) Applications Supported by Blocked Amount (ASBA) facility in Rights Issues.

The facility of making applications through (ASBA), in book built public issues introduced by SEBI on July 30, 2008 was extended to the rights issue on September 26, 2008 on a pilot basis.

SEBI stated that the ASBA facility in rights issues would be available to all shareholders of the issuer company requiring them to hold shares in dematerialised form and apply for entitlements or additional shares in the issue in dematerialised form. Further, it was stated that shareholders should not have renounced his/ her entitlements in full or in part; the shareholder should not be a renouncee to the issue and he should apply through a bank account maintained with SCSBs. The ASBA facility would not be available to non- shareholders.

The SEBI (Disclosure and Investor Protection) DIP guidelines issued under Section 11(1) of the SEBI Act, 1992 were rescinded and notified by SEBI on September 03, 2009. The various eligibility and disclosure norms were included in the ICDR (Issue of Capital and Disclosure requirements) Regulations, 2009.

The Amendments notified by SEBI in the SEBI (Disclosure and Investor Protection) Guidelines, 2000 (DIP Guidelines), relating to the public issues, rights, bonus issues which currently also forms part of the ICDR Regulations were amended when the DIP guidelines were in existence. These are discussed below.

## III) Amendments in the SEBI (Disclosure and Investor Protection) DIP guidelines notified on 28th August 2008

- **Reduction in timelines for rights issue :** In order to mitigate market risks faced by issuers and investors and to enable listed companies to raise funds from its shareholders in a more time effective manner, SEBI reduced the timelines in rights issues starting from the notice period required for calling a board meeting of the issuer to consider the rights issue up to the period stipulated for completion of allotment and commencement of listing and trading of the shares so issued.
- **Inclusion of definition of Qualified Institutional Buyers (QIBs)" in the definition clause of the SEBI (DIP) Guidelines:** The foreign institutional investors (FIIs) registered with SEBI were included in the definition of QIBs. These FIIs invest in securities in the primary market, either on their account or on behalf of their sub-account(s), in terms of the SEBI (Foreign Institutional Investors) Regulations, 1995. Through these amendments it has been decided to exclude sub-accounts falling in the categories of "foreign corporate" and "foreign individual" from the definition of QIBs.
- **Eligibility for making Qualified Institutions Placement (QIP) :** The eligibility criteria for listed companies desirous of making QIP included a condition that the equity shares of the same class of such companies should be listed on a stock exchange having nationwide terminals, for a period of at least one year as on the date of issuance of notice to shareholders for considering the QIP. This precluded the companies, which have been listed during the preceding one year pursuant to approved scheme(s) of merger/ demerger/ arrangement entered into by such companies with companies which have been listed for more than one year in such stock exchange(s), from using the QIP route for raising funds. In order to enable such companies to raise funds through QIP route, it was decided that for the purpose of fulfillment of the above mentioned eligibility criterion, such companies may take into account the listing history of the listed companies with which they have entered into the approved scheme(s) of merger/ demerger/ arrangement.
- **Pricing norms for QIP :** In order to facilitate eligible listed companies to raise funds through QIP route, it was decided to modify the pricing guidelines for QIP by bringing the issue price of the securities offered closer to their market price. This has been effected through change in the floor price formula and definition of relevant date.
- **Pricing norms for preferential allotment to QIBs -** In order to facilitate eligible listed companies to raise funds from QIBs without having to go through the elaborate documentation process required for QIP, it was decided to extend the modified pricing guidelines of QIP to preferential allotment to QIBs, provided that the number of QIB allottees in such preferential allotment does not exceed five.
- **Lock-in on shares issued against exercise of warrants issued on preferential basis :** As per the guidelines on preferential allotment, warrants issued on preferential basis were subject to lock-in for a period of one year or three years, as the case may be and lock-in on shares allotted on exercise of such warrants were adjusted to the extent of such period for which these warrants had already been locked-in. It was decided to subject the shares so allotted pursuant to exercise of warrants to full lock-in period of one year or three years, as the case may be, from the date of allotment of such shares.

- **Eligibility of shares for promoters' contribution and Offer for Sale** : The guidelines provided that only those shares, which are held by shareholders for a period of at least one year at the time of filing of draft offer document with SEBI, wer eligible (i) to be offered for sale and (ii) to be included for the purpose of promoters' contribution (except in cases where the shares are issued at the same issue price during the preceding one year). SEBI decided to permit offer for sale and inclusion in the promoters' contribution of those shares which have been acquired pursuant to a restructuring exercise approved by High Court(s), in lieu of business and invested capital which had been in existence for a period of more than one year prior to the restructuring exercise.

- **Filing of offer documents at SEBI Regional Offices :** The draft offer documents of issue size up to Rs.20 crores could be filed by lead merchant bankers with such Regional Office of SEBI under the jurisdiction of which the registered office of the issuer company falls. It was decided to increase this limit to Rs.50 crores.

## IV) Amendments in the SEBI (Disclosure and Investor Protection) DIP guidelines notified on 24th February 2009.

- **Enhancing the validity period of observations:** The validity period of observations letter issued by SEBI on draft offer documents filed for public/rights issues was increased from three months to twelve months. Every issuer would be required to file an updated offer document with SEBI, highlighting all changes made in the document. In case the updation includes significant changes in the offer document, such an updated Red herring prospectus/ prospectus or letter of offer is to be filed with SEBI at least one month before filing the same with Registrar of Companies or with Designated Stock Exchange as the case may be.

- **Reduction in timelines for completion of bonus issues** : A listed company was required to complete a bonus issue within a maximum period of six months from the date of approval of the issue by the board of directors of the company. SEBI reduced the timeline for completion of bonus issues. Accordingly, where no shareholders' approval is required as per the Articles of Association of the issuer, the bonus issue would be completed within fifteen days from the date of the approval by the board of directors. Where shareholders' approval is required for capitalisation of profits or reserves as per the Articles of Association of the issuer, the bonus issue would be completed within sixty days from the date of the meeting of board of directors where-in bonus was announced subject to shareholders' approval.

- **Announcement of price band :** The existing guidelines mandated discloser of the floor price or price band in an initial public offer through the book building process in the Red Herring Prospectus registered with the ROC, before the issue opening date. Given that there is a time lag of about two weeks between the filing of the (RHP) with the RoC and issue opening date, this exposed the price band disclosed in the RHP to market conditions. In order to mitigate this, issuers making an initial public offer were permitted to announce the floor price or price band at least two working days before the issue opening date subject to fulfillment of certain disclosure requirements. Further, in case the floor price or price band is announced after the date of registration of the Red Herring Prospectus with the RoC, the issuer should ensure wide dissemination of the floor price or price band through various means, including newspaper advertisement and disclose details of the relevant financial ratios used for justification of the floor price or price band. In case of a price band, such financial ratios need to be calculated for both upper and lower end of the price band.

## V) Amendments in the SEBI (Disclosure and Investor Protection) DIP guidelines notified in July 2009.

- **Listing of IPO on stock exchange with nationwide trading terminals:** An unlisted company making an IPO needs to list the securities on at least one stock exchange having nationwide trading terminals. This would provide a liquid trading platform to investors in securities of the company.

- **Anchor Investor in public issues:** An issuer making a public issue of shares through book building may allocate on a discretionary basis up to 30% of the QIB portion of the issue to anchor investors (AIs), who is a QIB. The minimum size of application by AIs would be Rs. 10 crore. They would bring in a margin of 25% on application and the balance 75% within 2 days of the date of closure of the public issue. There would be a lock-in of 30 days on the shares allotted to these investors from the date of allotment. No person related to the promoter/promoter group/BRLMs can apply as anchor investor. This would bring more certainty to transactions.

### VI) Amendments in Rights Issue norms.

In order to encourage listed companies to look at rights issues as a viable form of capital SEBI carried out certain amendments in the rights issue norms in September 2008. The disclosure requirements for rights issues were rationalized, accordingly the issuer companies have to disclose only minimum information that will help in making the issuance process faster and also help in reducing cost. Further, the issuer company were allowed to utilise the rights issue proceeds after satisfying the designated stock exchange that its 'rights offer had received minimum 90% subscription'. SEBI reduced the time period taken for finalization of basis of allotment in the rights issues to 15 days from the earlier period of 42 days from the date of closure of the issue. In view of this, SEBI amended the guidelines to provide that the issuer company can utilize the issue proceeds only after the basis of allotment is finalized.

### VII) Amendments to the Equity Listing Agreement.

With a view to enhance disclosures regarding shareholding pattern in a listed company and bring in more transparency and efficiency in the governance of a listed company, SEBI amended certain clauses in the Equity Listing Agreement in April 2009.

To mitigate the problem of large number of shares issued pursuant to the public issue which remain unclaimed, SEBI brought out a uniform procedure for dealing with unclaimed shares i.e shares which could not be allotted to the rightful shareholder due to insufficient/incorrect information or any other reason. Accordingly, the new Clause 5A was inserted, which, inter alia, provides - the unclaimed shares needs to be credited to a demat suspense account opened by the issuer with one of the depository participants. Any corporate benefit in terms of securities, accruing on unclaimed shares such as bonus shares, split etc., also needs to be credited to such account. Details of shareholding of each individual allottee whose shares have been credited to such suspense account needs be properly maintained by the issuer. The allottee's account would be credited as and when he/she approaches the issuer, after undertaking the proper verification of identity of the allottee. The voting rights of these shares would remain frozen till the rightful owner claims the shares. Details (in aggregate) of shares in the suspense account including freeze on their voting rights, needs be disclosed in the Annual Report as long as there are shares in the suspense account.

Further, clause 16 and clause 19 in the listing agreement was amended to reduce the timelines for notice period for all corporate actions like dividend, bonus etc, for all scripts in demat or physical form, in F&O segment or not. The notice period for record date was reduced to 7 working days and for board meeting was reduced to 2 working days. A new clause (20 A) was inserted which takes care of the mandating listed companies to declare their dividend on per share basis only. This is expected to bring uniformity in the manner of declaring dividend amongst the listed companies.

SEBI also clarified that clause 35 of the listing agreement which gives a format for disclosures of shareholding pattern, is required to be given for each class of security separately. Further, clause 35 was amended to provide an additional format for disclosures of voting rights pattern in the company.

### VIII) Issues regarding applicability of SEBI Delisting Regulations clarified.

SEBI notified the (Delisting of Equity Shares) Regulations, 2009 on June 10, 2009. Since the notification of this regulation, SEBI received queries from various market participants, listed companies etc regarding the 'transitional provisions' contained in regulation 31 of the Delisting Regulations, which outlines certain situations under which the provisions of the earlier Securities and Exchange Board of India (Delisting of Securities) Guidelines, 2003 (Delisting Guidelines) would still be applicable to a particular delisting transaction.

In this regard, it was clarified that in cases where a special resolution had already been passed under the Delisting Guidelines prior to commencement of the Delisting Regulations, the delisting process would be governed by the provisions of the Delisting Guidelines, provided the said resolution is acted upon within a period of three months from September 14, 2009 (i.e the date of the issuance of the circular on the above subject). Otherwise, the company would be required to pass a fresh special resolution in terms of Delisting Regulations and proceed for delisting in terms of Delisting Regulations. For this purpose, the words "acted upon" would mean that the implementation of activities including the opening of the book building process for determination of the exit price in terms of Clause 8.1 of the Delisting Guidelines, would be required to be done within three months from September 14, 2009 (i.e the date of the issuance of the circular on the above subject.)

## IX) Amendments to listing agreement and take over regulation.

SEBI, at its Board meeting held on 22nd September, 2009, decided to amend the listing agreement and takeover regulation. The Board took, inter-alia, the following decisions.

- **Amendments to Listing Agreement/ ICDR Regulations :-**

  **Compliance with applicable Accounting Standards :** A listed company undergoing corporate restructuring (merger, demerger or amalgamation) under a scheme of arrangement would be required to submit an auditors' certificate to the stock exchange to the effect that the accounting treatment followed in respect of financials contained in the scheme is in compliance with all the applicable accounting standards. This requirement would be prescribed through amendments to listing agreement. An unlisted company undergoing similar corporate restructuring and proposing to make an IPO would be required to make disclosures in the DRHP (Draft Red Herring Prospectus) in terms of AS 14. This is mandated through the SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009.

  **Facilities for issue of Indian Depository Receipts :-** The Board decided to extend the facility of anchor investors to issue of IDRs on similar terms as applicable to public issues made by domestic companies. It also decided that at least 30% of issue size of the IDRs be reserved for allocation to retail individual investors, who may otherwise be crowded out.

- **Amendments to SEBI (Substantial Acquisition of Shares and Takeovers) Regulations (Takeover Regulations) :-**

  **Applicability of open offer obligations in case of GDRs/ ADRs etc.** In tune with market developments, the Board decided to amend the Takeover Regulations to provide that, where the ADR/ GDR holders are entitled to exercise voting rights on the shares underlying GDRs / ADRs by virtue of clauses in the depository agreement or otherwise, open offer obligations would be triggered upon crossing the threshold limits set out under Chapter III of the Regulations.

  **Disclosure of sale/ purchase by acquirer under Regulation 7 (1A) :** Regulation 7 (1A) of the Takeover Regulations requires disclosures on (+ /-) 2% acquisition / divestment by the acquirers holding shares / voting rights between 15-55%. The Board decided to extend such disclosure requirements to acquirers holding shares / voting rights between 15-75%.

## X) Amendments in the Issue of Capital and Disclosure Requirements, Regulations, 2009 (ICDR).

SEBI, at its Board meeting held on 9th November, 2009, decided to amend the ICDR Regulations/ Listing Agreement, to inter-alia, require interim disclosure of Balance Sheet items by listed entities and permitting pure auctions for qualified institutional investors (QIBs) in follow-on public offerings to begin with. The amendments are as follows :

**QIB Status to insurance funds set up by armed forces:** The Board decided to accord QIB status to insurance funds set up by armed forces such as Army Group Insurance Fund.

**Reservation to employees:** The ICDR regulations permited reservation upto 10% of issue size to employees in public issues. However, there was no ceiling on number of shares that could be allotted. SEBI decided to put a ceiling of Rs.1 lakh on the value of allotment that can be made to an employee under employee reservation category and to permit reservation upto 5% of the post issued capital instead of 10% of issue size. SEBI also decided to extend reservation to employees along with rights issue. The ICDR Regulations also provided for discount upto 10% of issue price to retail individual investors and shareholders but not to employees. It was also decided to allow discount of not more than 10 percent to employees also under the reserved category only in public issues for application size upto Rs.1,00,000/-.

**Voluntary adoption of IFRS by listed entities having subsidiaries:** The Board observed that providing a voluntary option to all listed entities which consolidate their books of accounts to submit their financials as per IFRS would be in line with the objective of achieving convergence to IFRS by 2011 and would help in preparing corporate entities well in advance for compliance with IFRS requirements. SEBI, therefore, decided to provide an option to all listed entities with subsidiaries to submit their consolidated financial statements as per IFRS. However, such entities are required to continue to file their stand alone financials as per Indian GAAP in line with the Companies Act requirements.

**Interim disclosure of Balance Sheet items by listed entities:** Taking note that internationally most jurisdictions require disclosure of Balance Sheet items on an interim basis whereas in India companies disclose only interim financial results, SEBI decided to mandate half-yearly disclosure of Balance Sheet items with audited figures or un-audited figures with limited review.

**Timelines for submission of financial results by listed entities:** There were varying time limes for disclosure of unaudited/ audited/ limited review results. SEBI decided to make it mandatory to disclose only limited review or audited results within 45 days of the end of the quarter. It was also decided to reduce timeline for disclosure of audited annual results from 90 days to 60 days to those companies which opt to submit their annual audited results on a stand-alone basis in lieu of the last quarter un-audited financial results.

**Requirements for Fast Track Issues:** In order to enable well established and compliant listed companies to access Indian primary market in a time effective manner through follow-on public offerings and rights issues, SEBI introduced the concept of Fast Track Issues (FTIs) in November 2007. SEBI decided to relax certain requirements of FTIs such as reducing the average market capitalization of public shareholding of the issuer to five thousand crore rupees from ten thousand crore rupees, pegging the annualized trading turnover to free float for companies whose public shareholding is less than 15 percent of the issued capital. It was also decided that incase the clause relating to composition of Board of Directors has not been complied with in one or more quarters, it need not be deemed as non compliance, provided the company is in compliance in this regard at the time of filing the offer document with stock exchange/ ROC and adequate disclosures are made in the offer document in this respect.

**Relaxation from restatement of financial statements:** SEBI had recently rationalized financial disclosure requirements for rights issues on the ground that much of the information of a listed company is available in public domain. For rights issues, the issuer is required to give only the audited accounts of last financial year and audited or unaudited financials with limited review results for the stub period instead of 5 years restated financials required earlier. Extending the same logic, the SEBI decided that the requirement for disclosure of financials in FPOs of identical instruments quoted on a stock exchange may be brought on par with rights issues and to start with companies that are eligible to make an issue under fast track, subject to certain conditions.

**Introduction of pure auction as an additional book building mechanism:** It was decided to introduce an additional method of book building, to start with, for FPOs, in which the bidders would be free to bid at any price above the floor price and allotment would be on price priority basis and at differential prices. However, retail individual investors in such cases would be allotted shares at the floor price. The Board further decided that if the issuer desires to place a cap either in terms of number of shares or percentage to issued capital of the company in order that a single bidder does not garner all shares on offer and there is wider distribution, the same would be permitted.

## XI) Debt Listing Agreement for Debt Securities simplified.

SEBI had, vide its circular dated May 11, 2009 put in place the Simplified Listing Agreement for Debt Securities. Pursuant to suggestions from various market participants received subsequently, SEBI had amended the said Listing Agreement vide its circular dated November 26, 2009.

The amendments are briefly summarized as under:

**100% Asset Cover:** To align the Listing Agreement with the provisions of the Companies Act, 1956, the amended Listing

Agreement requires issuers to maintain 100% asset cover sufficient to discharge the principal amount at all times for the debt securities issued. Further, to provide more information to investors, the periodic disclosures to the stock exchange require disclosure of the extent and nature of security created and maintained.

**Submission of certificate on maintenance of security:** As against half-yearly certifications on security cover in respect of listed secured debt securities, the amended Listing Agreement provides for submission of such certificates regarding maintenance of 100% asset cover, and the time limit of submission in respect of the last half year has been aligned with the option provided for submission of annual audited results at a later date. In addition to Banks and NBFCs being exempt from submitting such certificates, issuers of Government guaranteed bonds are also exempted.

**Statement on Use of Issue Proceeds:** In order to enhance the quality of disclosures made to investors, issuers are required to furnish a statement of deviations in use of issue proceeds, if any, to the stock exchange on a half yearly basis. Also, the same is required to be published in the newspapers simultaneously with the half-yearly financial results.

**Deposit of 1% of issue proceeds**: So as to ensure that the interest of investors investing in public issues of debt securities is protected, the issuer is required to deposit an amount calculated at 1% of the amount of debt securities offered for subscription to the public. It is refundable or forfeitable in the manner stated in the Rules, Bye-laws and Regulations of the Exchange.

**Submission/ publication of Financial Statements:** The time-lines for disclosure of financial statements have been aligned with the proposed changes to the Equity Listing Agreement. Accordingly, issuers have to publish/ furnish to the Exchange, either audited half yearly financial statements or unaudited half yearly financial statements subject to a limited review within 45 days from the end of the half year. In case of the last half year, issuers may opt to submit their annual audited results in lieu of the unaudited financial results for the period, within 60 days from the end of the financial year.

## Market Design

The primary market is governed by the provisions of the Companies Act, 1956, which deals with issues, listing and allotment of securities. Additionally the SEBI - prescribes the eligibility and disclosure norms to be complied by the issuer, promoter for accessing the market. In this section we discuss the market design related to public issues, offer for sale, rights issue by listed and unlisted companies as per the guidelines 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 Registrar of Companies (RoCs)/Designated Stock Exchange respectively:

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

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

- it has net tangible assets of at least Rs. 3 crore in each of the preceding 3 full years, of which not more than 50% is held in monetary assets; provided that if more than 50% of the net tangible assets are held in monetary assets, the company has made firm commitments to deploy such excess monetary assets in its business/project ;
- it has a net worth of at least Rs. 1 crore in each of the preceding 3 full years;
- it has a track record of distributable profits in terms of section 205 of the Companies Act, 1956, for at least 3 out of the immediately preceding 5 years; provided further that extraordinary items shall not be considered for calculating distributable profits in terms of section 205 of Companies Act, 1956;

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

In case the above mentioned conditions are not satisfied, an issuer can still make an IPO on compliance of the guidelines as specified:

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

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

AND

(b) (i) minimum post-issue face value capital of the company should be Rs. 10 crore, OR

(ii) there should be compulsory market making for at least 2 years from the date of listing subject to certain conditions as specified in the regulations.

A company can make an initial public offer 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.

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

**IPO Grading**

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

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

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

**Pricing of 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 initial public offer may determine the face value of equity shares subject to the provisions of the Companies Act, 1956, SEBI Act and regulations. If the issue price per equity share is Rs. 500 or more, the issuer shall have the option to determine the face value at below Rs.10 per equity share, subject to the condition that the face value shall not be less than Rs. 1 per equity share.

In case the issue price per equity share is less than Rs. 500 per equity share , the face value of the shares shall be Rs. 10 per equity share.

The above clause does not apply to initial public offer made by any government company, statutory authority or corporation or any special purpose vehicle set up by any of them, which is engaged in infrastructure sector.

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

**Price and price band.**

The issuer can mention the price or price band in the draft prospectus (In case of a fixed price issue) and the floor price or price band in the red herring prospectus (in 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 require to contain only one price or the specific coupon rate, as the case may be.

The cap on the price band shall be less than or equal to 120% 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 cap on the coupon rate in case of convertible debt instruments.

**Contribution of Promoters and lock-in**

- The promoters' contribution in case of initial public offer should not be less than 20% of the post issue capital.
- In case of further public offer, promoters should contribute to the extent of 20% of the proposed issue or should ensure post-issue share holding to the extent of 20% of the post-issue capital.
- For a composite issue, the promoters' contribution should either be 20% of the proposed issue size or 20% of the post-issue capital.
- At least one day prior to the opening of the issue the promoters should bring in the full amount of the promoters contribution including premium which should be kept in an escrow account with a Scheduled Commercial Bank and the said contribution/amount should be released to the company along with the public issue proceed.
- The minimum promoters' contribution should be locked in for a period of 3 years in case of public issues, however. However, f 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 date of allotment in the public issue, whichever is later.
- In case of pre-issue share capital of an IPO, the entire pre-issue share capital, other than promoters contribution shall be locked for a period of one year. Securities allotted in firm allotment basis are also locked in for a period of one year from the date of commencement of commercial production or the date of allotment in the public issue whichever is later. The locked-in securities held by promoters may be pledged only with banks or FIs as collateral security for loans granted by such banks or FIs.

**Pre-Issue Obligations**

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

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

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

– The lead merchant banker responsible for drafting of the offer documents has to submit to the Board the copy of the MOU entered into with the issuer company and the draft of the offer document.

– In case a public or rights issue is managed by more than one merchant banker the rights, obligation and responsibilities of each merchant banker should be demarcated as specified *in schedule .I*

– In case of under subscription of an issue, the Lead Merchant Banker responsible for underwriting arrangements should invoke 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 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 under writing obligations. In respect of every underwritten issue, the lead merchant banker(s) should undertake a minimum underwriting obligation of 5% to the total underwriting commitment of Rs.25 lakhs whichever is less. The outstanding underwriting commitments of a merchant banker should not exceed 20 times its net worth at any point of time. In respect of an underwritten issue, the lead merchant banker should ensure that the relevant details of underwriters are included in the offer document.

The draft offer documents filed with the Board should be made public for a period of 21 days from the date of filing the offer document with the Board and filed with the stock exchanges where the securities are proposed to be listed. Further, the draft offer documents should be put on the websites of the lead managers/syndicate members associated with the issue and also ensure that the contents of documents hosted on the websites are the same as that of their printed versions.

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

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

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

**Post-Issue Obligations**

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

In a public issue, the Executive Director/Managing Director of the Designated Stock Exchange along with the post issue lead merchant banker and the registrars to the Issue are responsible for the finalization of allotment in a fair and proper manner as specified in Schedule XV.

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

***Credit Rating***

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

***Merchant Banking***

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

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

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

***Demat issues***

SEBI has mandated that all new IPOs compulsorily should be traded in dematerialised form only. Further, kthe section 68B of the Companies Act, 1956, requires that every listed public company making IPO of any security for Rs. 10 crore or more should issue the same only in dematerialised form.

***Private Placement***

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

# Market Outcome

## Public and Rights Issues

### Resource Mobilisation

During 2008-09, resources mobilised from public and rights issues decreased by 81.58 % to Rs.162,190 million (US $ 3,183 million) in comparisons to Rs. 880,290 million (US $ 22,024 million) in 2007-08. 47 companies accessed the primary market through 22 public issues and 25 rights issues. The 22 public issues comprised of 21 equity instruments of Initial public offerings (IPOs) and one Non convertible debenture (NCD). The IPO market exhibited a steep fall, there were only 21 IPOs in 2008-09 in comparison to 85 during the previous fiscal. The amount raised through IPO was lower by 95.11 % at Rs.20,820 million (US $ 409 million) from Rs.425,950 million (US $ 10,357) in 2007-08. The share of rights issues in the total resource mobilization was 77.91 % in 2008-09 as against 36.94 % in the previous fiscal. All the 47 public issues were made by private sector companies (Table 2-2 and Table 2-3).

**Table 2-2: Resource Mobilisation from Public and Rights Issues**

| Issue | 2007-08 | | | 2008-09 | | | (April 09-June 09) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number | Amount (Rs.mn) | Amount (US $ mn) | Number | Amount (Rs.mn) | Amount (US $ mn) | Number | Amount (Rs.mn) | Amount (US $ mn) |
| **1. Public Issues (i) + (ii)** | **93** | **555,110** | **13,888** | **22** | **35,820** | **703** | **2** | **3,080** | **64.34** |
| *i. Public Issues (Equity route)* | 92 | 545,110 | 13,638 | 21 | 20,820 | 409 | 2 | 3,080 | 64.34 |
| Public Issues (IPO) | 85 | 425,950 | 10,657 | 21 | 20,820 | 409 | 1 | 2,780 | 58.07 |
| Public Issues (FPO) | 7 | 119,160 | 2,981 | 0 | - | - | 1 | 300 | 6.27 |
| *ii. Public Issues (Debt route)* | 1 | 10,000 | 250 | 1 | 15,000 | 294 | 0 | - | - |
| Public Issues (Bond/NCD) | 1 | 10,000 | 250 | 1 | 15,000 | 294 | 0 | - | - |
| 2. Rights Issues | 32 | 325,180 | 8,136 | 25 | 126,370 | 2,480 | 3 | 290 | 6.06 |
| **Total (1+2)** | **125** | **880,290** | **22,024** | **47** | **162,190** | **3,183** | **5** | **3,370** | **70.40** |

**All offers for sale are initial public offers, hence are already counted under IPOs.**
– Nil
Source: SEBI

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

| Sector | 2007-08 | | 2008-09 | | April 09- June 09 | |
|---|---|---|---|---|---|---|
| | Number | Amount (Rs.mn) | Number | Amount (Rs.mn) | Number | Amount (Rs.mn) |
| Private | 120 | 673,110 | 47 | 162,200 | 5 | 3,370 |
| Public | 4 | 197,180 | – | – | – | – |
| **Total** | **124** | **870,290** | **47** | **162,200** | **5** | **3,370** |

– Nil
*Source:* SEBI

During the period April-June 2009, there were 5 public issues in all, comprising of an IPO, a public issue by a listed companies and 3 right issues together mobilizing Rs. 3,370 million (US $ 70.70 million).

### Industry-wise distribution, Size wise distribution

The finance sector contributed the maximum share of 12.12 % of the total resources mobilized during 2008-09 with 3 public issues mobilizing Rs. 19,660 million (US $ 386 million). The entertainment sector was at the second position accounting of 7.13 % of the total resources mobilized. Over the years a range of industries have emerged as the major contributors of resources mobilsied. In 2007-08 the Banking sector contributed (35.57%) to the total resources raised followed by Cement & Construction (21.72 %) (Table 2-4).

**Table 2-4: Industry-wise Distribution of Resources Mobilised**

| Industry | 2007-08 | 2008-09 | | |
|---|---|---|---|---|
| | Percentage Share | Number | Amount (Rs. Mn) | Percentage Share |
| Banking/FIs | 35.57 | 0 | 0.00 | 0.00 |
| Cement & Construction | 21.72 | 3 | 800.00 | 0.49 |
| Chemical | 0.76 | 4 | 2,180.00 | 1.34 |
| Entertainment | 0.46 | 2 | 11,560.00 | 7.13 |
| Finance | 2.04 | 3 | 19,660.00 | 12.12 |
| Information Technology | 0.79 | 1 | 420.00 | 0.26 |
| Paper & Pulp | 0.04 | 0 | 0.00 | 0.00 |
| Power | 15.75 | 2 | 9,580.00 | 5.91 |
| Telecom | 1.15 | 2 | 1,000.00 | 0.62 |
| Textile | 0.51 | 5 | 7,100.00 | 4.38 |
| Others | 21.21 | 25 | 109,900.00 | 67.75 |
| **Total** | **100.00** | **47** | **162,200.00** | **100.00** |

*Source: SEBI*

Table 2-5 exhibit's the size wise distribution of public and rights issues during 2008-09. About 78.08 % of resource mobilization was through public issues of issue size above Rs. 500 crore. In terms of number of issues however there were only 6 issues above Rs. 500 crore. A maximum of 21 issues were in the range of Rs. 10 crore to Rs. 50 crore.

**Table 2-5: Size wise distribution of Resources Mobilised**

| Issue Size | No of issues | Amount (Rs. Mn) | Percentage Share | No of issues | Amount (Rs. Mn) | Percentage Share |
|---|---|---|---|---|---|---|
| | 2007-08 | | | 2008-09 | | |
| < Rs. 5 crore | 4 | 160 | 0.02 | 1 | 30 | 0.02 |
| ≥ Rs. 5 crore & < Rs. 10 crore | 1 | 60 | 0.01 | 1 | 70 | 0.04 |
| ≥ Rs. 10 crore & < Rs. 50 crore | 33 | 9,200 | 1.06 | 21 | 5,090 | 3.14 |
| ≥ Rs. 50 crore & < Rs. 100 crore | 25 | 16,630 | 1.91 | 6 | 4,450 | 2.74 |
| ≥ Rs. 100 crore & < Rs. 500 crore | 37 | 79,990 | 9.19 | 12 | 25,910 | 15.98 |
| ≥ Rs. 500 crore | 24 | 7,64,200 | 87.81 | 6 | 126,640 | 78.08 |
| **Total** | **124** | **870,240** | **100.00** | **47** | **162,190** | **100.00** |

Source: SEBI

There were 9 mega issues (Rs.3,000 million and above), the largest being the Rights issue of Hindalco Industries Limited (Rs. 50,480 million/ US $ 991 milllion) followed by the rights issue of Tata Motors Limited (Rs. 21,850 million/ US $ 429 million). The 9 mega issues mobilized 86.24 % of the total resources raised. (Table 2-6).

**Table 2-6: Mega Issues in 2008-09**

| Name of the Company | Tye of Issue | Type of instrument | Date of Opening of Issue | Offer Size (Rs. Mn.) | Percentage Share in the Grand Total |
|---|---|---|---|---|---|
| United Breweries Limited | Rights | Equity | 30-Apr-08 | 4,250 | 2.62 |
| KSK Energy Ventures Limited | Public | Equity | 23-Jun-08 | 8,310 | 5.12 |
| Hindalco Industries Limited | Rights | Equity | 22-Sep-08 | 50,480 | 31.12 |
| Tata Investment Corporation Limited | Rights | Equity | 27-Sep-08 | 4,480 | 2.76 |
| Tata Motors Limited | Rights | Equity | 29-Sep-08 | 21,850 | 13.47 |
| Tata Motors Limited | Rights | Equity (with differential voting rights) | 29-Sep-08 | 19,600 | 12.08 |
| Dish TV India Limited | Rights | Equity | 12-Dec-08 | 11,400 | 7.03 |
| Tata Capital Limited | Public | NCD | 2-Feb-08 | 15,000 | 9.25 |
| Alok Industries Limited | Rights | Equity | 31-Mar-08 | 4,500 | 2.77 |
| Total - Mega Issues (Rs. Mn.) | | | | **139,870** | **86.24** |
| Grand Total-Resource Mobilisation from Public and Rights Issues (Rs. Mn.) | | | | **162,190** | **100.00** |

Source: SEBI

The Prime Annual Report[1], captures the response to public issues to Indian Public which is presented in (Table 2-7). The public issues failed to elicit a good response, 55 % of the issues were subscribed less that 1.5 times. Only 8 % of the public issues were subscribed more than 10 times in comparison to 44 % in the previous fiscal. The most subscribed issues during 2008-09 were Avon Weighing systems Ltd, which was over subscribed 44.73 times followed by, Aishwarya Telecom Ltd. which was over-subscribed 18.85 times. Tata Capital Ltd (NCD issue) was oversubscribed 1.73 times.

**Table 2-7: Response to Public Issues (IPO and FPO)**

***(% of issues)***

| Times Subscribed | 2007-08 | 2008-09 |
|---|---|---|
| < 1.5 | 22 | 55 |
| 1.5 - 3 | 11 | 14 |
| 3 - 10 | 23 | 23 |
| > 10 | 44 | 8 |
| | 100 | 100 |

*Source: Prime Database (includes only public issues and not rights issues)*

[1] Prime Annual Report is a publication of Praxis Consulting & Information Services Pvt. Ltd.

## *Euro Issues*

Indian companies raise resources from international markets through the issue of Foreign Currency Convertible Bonds (FCCBs) and also through GDRs, ADRs, GDSs, ADSs 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.

During 2008-09, there was a steep drop in the resources mobilised through Euro issues, that decreased to Rs. 47,880 million (US $ 940 million) as against Rs. 265,560 million (US $ 6,644 million) raised during 2007-08. (Table 2-1).

The resources mobilized by the companies listed on NSE through GDRs, ADRs, GDSs and ADSs also witnessed a decrease from Rs. 289,431million (US$ 7,241 million) in 2007-08 to Rs. 15,418 million (US $ 303 million) in the current fiscal.

## Performance of Initial Public Offerings (IPOs) listed on NSE

During 2008-09 Rs. 38,335 million (US $ 752.40 million) were raised through the nineteen (19) IPOs listed on NSE. They were from the various sectors viz. Finance, Infrastructure, Manufacturing, Services and Telecommunication.

Tata Capital Ltd. came out with an IPO of non-convertible Debentures (NCD) mobilizing Rs. 15,000 million (US $ 294 million). There was an appreciation in the price on the first day of trading as well as at the end of March 2009 when compared to the issue price.

There was an appreciation in the market price on the first day of trading of 10 IPOs. Around 9 IPOs showed negative returns on the first day of listing/trading and 15 IPOs showed negative returns by the year end March 2009 as compared to their issue price. The IPO of Alkali Metals Limited marked its performance with a 68.35 % appreciation in price on its first day of trading as well as a whopping 127.48 % increase in price over the issue price at the end of March 09. Similarly the price of Austral Coke & Projects Limited too scored up by 15.28 % and 14.85 % during the above period. (Table 2-8).

## Book Building through On-line IPO System

Book building is basically a process used in IPO for efficient price discovery, wherein during the period when the offer is open, bids are collected from investors at various prices, which are above or equal to the floor price. The offer price is determined after the bid closing date. In its endeavour to continuously improve the Indian securities market, NSE has offered an infrastructure for conducting online IPOs through book building. It helps to discover prices as well as demand for the security to be issued through a process of bidding. The advantages are: (a) the investor parts with money only after the allotment (b) it eliminates refunds except in case of direct applications and (c) it reduces the time taken to process the issue. Till June 2009, 300 issuers have used the NSE online IPO system for making IPO issues.

## Debt Issues

Government and corporate sector collectively raised a total of Rs. 6,125,147 million (US $ 120,219 million) from primary market during 2008-09. About 71.29% has been raised by the Government, while the balance by the corporate sector through private placement. (Table 2-9).

**Table 2-8: Performance of IPOs listed on NSE during April 2008 to June 2009**

| Sr. No. | Company Name | Sector | Issue size | Date of Listing | No. of Securities issued | Issue Price | Close Price on first day of trading | Close Price at end of March 2009 | Price Appreciation/ Depreciation on the first day of trading with the issue price | Price Appreciation/ Depreciation at end March 2009 with the issue price |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Rs.mn.) | | | (Rs.) | | | (%) | |
| 1 | Gammon Infrastructure Projects Limited | Infrastructure | 2763.85 | 3-Apr-08 | 16,550,000 | 167.00 | 158.15 | 52.00 | (5.30) | (68.86) |
| 2 | Sita Shree Food Products Limited | Manufacturing | 315.00 | 7-Apr-08 | 10,500,000 | 30.00 | 43.70 | 5.65 | 45.67 | (81.17) |
| 3 | Titagarh Wagons Limited | Manufacturing | 1287.23 | 21-Apr-08 | 2,383,768 | 540.00 | 706.85 | 141.70 | 30.90 | (73.76) |
| 4 | Kiri Dyes and Chemicals Limited | Manufacturing | 562.51 | 22-Apr-08 | 3,750,053 | 150.00 | 158.95 | 129.25 | 5.97 | (13.83) |
| 5 | Gokul Refoils and Solvent Limited | Manufacturing | 1395.89 | 4-Jun-08 | 7,158,392 | 195.00 | 182.05 | 205.85 | (6.64) | 5.56 |
| 6 | Sejal Architectural Glass Limited | Manufacturing | 1057.33 | 1-Jul-08 | 9,194,155 | 115.00 | 81.25 | 22.90 | (29.35) | (80.09) |
| 7 | Archidply Industries Limited | Manufacturing | 489.56 | 4-Jul-08 | 6,615,720 | 74.00 | 50.70 | 13.55 | (31.49) | (81.69) |
| 8 | First Winner Industries Limited | Manufacturing | 687.51 | 8-Jul-08 | 5,500,043 | 125.00 | 89.20 | 12.60 | (28.64) | (89.92) |
| 9 | Lotus Eye Care Hospital Limited | Services | 380.00 | 11-Jul-08 | 10,000,000 | 38.00 | 35.65 | 28.05 | (6.18) | (26.18) |
| 10 | KSK Energy Ventures Limited | Infrastructure | 8306.64 | 14-Jul-08 | 34,611,000 | 240.00 | 191.75 | 189.55 | (20.10) | (21.02) |
| 11 | Birla Cotsyn (India) Limited | Manufacturing | 1441.76 | 30-Jul-08 | 102,982,730 | 14.00 | 9.45 | 3.45 | (32.50) | (75.36) |
| 12 | Vishal Information Technologies Limited | Services | 418.62 | 11-Aug-08 | 2,790,829 | 150.00 | 194.60 | 35.80 | 29.73 | (76.13) |
| 13 | Nu Tek India Limited | Telecommunication | 864.00 | 27-Aug-08 | 4,500,000 | 192.00 | 199.15 | 29.35 | 3.72 | (84.71) |
| 14 | Resurgere Mines & Minerals India Limited | Manufacturing | 1201.50 | 1-Sep-08 | 4,450,000 | 270.00 | 533.55 | 45.25 | 97.61 | (83.24) |
| 15 | Austral Coke & Projects Limited | Manufacturing | 1422.96 | 4-Sep-08 | 7,260,000 | 196.00 | 225.95 | 225.10 | 15.28 | 14.85 |
| 16 | 20 Microns Limited | Manufacturing | 239.32 | 6-Oct-08 | 4,351,251 | 55.00 | 33.65 | 15.10 | (38.82) | (72.55) |
| 17 | Alkali Metals Limited | Manufacturing | 262.65 | 6-Nov-08 | 2,550,000 | 103.00 | 173.40 | 234.30 | 68.35 | 127.48 |
| 18 | Edserv Softsystems Limited | Services | 238.43 | 2-Mar-09 | 3,973,908 | 60.00 | 137.70 | 19.55 | 129.50 | (67.42) |

**Initial Public Offerings (IPOs) of NCDs during 2008-09**

| Sr. No. | Company Name & Series | Sector | Issue size | Date of Listing | No. of Securities issued | Issue Price | Close Price on first day of trading | Close Price at end of March 2008 | Price Appreciation/ Depreciation on the first day of trading | Price Appreciation/ Depreciation at end March 2008 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | (Rs.mn.) | | | (Rs.) | | | (%) | |
| 1 | Tata Capital Limited- N1 | FINANCE | 617.10 | 17-Mar-09 | 6171 | 100000.00 | 102,010.66 | 108,000.00 | 2.01 | 8.00 |
| | Tata Capital Limited-N2 | | 1625.91 | 17-Mar-09 | 1625906 | 1000.00 | 1,032.44 | 1,074.00 | 3.24 | 7.40 |
| | Tata Capital Limited- N3 | | 7457.43 | 17-Mar-09 | 7457427 | 1000.00 | 1,037.45 | 1,074.94 | 3.75 | 7.49 |
| | Tata Capital Limited-N4 | | 5299.57 | 17-Mar-09 | 5299567 | 1000.00 | 1,020.68 | 1,087.50 | 2.07 | 8.75 |

There were no IPOs during the period April 09 - June 09

**Table 2-9: Resources Raised from Debt Markets**

| Issuer | 2007-08 (Rs. mn.) | 2008-09 (Rs. mn.) | 2007-08 (US$. mn.) | 2008-09 (US$. mn.) |
|---|---|---|---|---|
| Corporate | 1,162,661 | 1,758,267 | 29,088 | 34,510 |
| Public Issues | 10,000 | 15,000 | 250 | 294 |
| Private Placement* | 1,152,661 | 1,743,267 | 28,838 | 34,215 |
| Government | 2,559,840 | 4,366,880 | 64,044 | 85,709 |
| **Total** | **3,722,501** | **6,125,147** | **93,132** | **120,219** |

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

*Source: Prime Data base (for Private placement) SEBI for Public issues & RBI Annual Report 2008-09 (for Government debt).*

## Private Placement of Debt

According to Prime Annual Report, a total of 167 issuers (institutional and corporates) raised Rs. 1,743,567 million (US $ 34,221 million) through 799 privately placed issues in 2008-09.

Response to most of the issues was good. 215 issues out of 799 issues i.e around 27% of the total issues were made by the government sector units, which mobilized 69% of the total. During the period April-June 2009, there were 67 issuers which placed 137 issues amounting to Rs.403,003 million (US $ 8,419 million) (Table 2.10 & 2-11). The amount raised through the private placement of debt issues have been on an increasing trend over the past few years (Chart 2-1) (Chart 2-2).

**Table 2-10: Private Placement - Institutional & Corporate Debt**

| Year | No. of issuers | No. of Privately Placed issues | Resource Mobilisation through Private Placement of Debt (Rs.million) | Resource Mobilisation through Private Placement of Debt (US$.million) |
|---|---|---|---|---|
| 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** |
| **April - June 2009** | **67** | **137** | **403,003** | **8,419** |

*Source:Prime Database*

**Table 2-11: Issuer-wise Distribution of Private Placement of Debt**

| Issuer | Issue Amount (Rs. mn. ) | | | Issue Amount (US $.mn.) | | | % of Issue Amount | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2007-08 | 2008-09 | April-June 2009 | 2007-08 | 2008-09 | April-June 2009 | 2007-08 | 2008-09 | April-June 2009 |
| All India Financial Institutions/Banks | 901,643 | 1,028,864 | 210,024 | 22,558 | 20,194 | 4,387 | 78.22 | 59.02 | 52.11 |
| State Financial Institutions | 13,089 | 2,540 | 30 | 327 | 50 | 1 | 1.14 | 0.15 | 0.01 |
| Public Sector Undertakings | 7,559 | 118,145 | 23,000 | 189 | 2,319 | 480 | 0.66 | 6.78 | 5.71 |
| State Level Undertakings | 13,480 | 47,382 | 2,416 | 337 | 930 | 50 | 1.17 | 2.72 | 0.60 |
| Private Sector | 216,891 | 546,337 | 167,533 | 5,426 | 10,723 | 3,500 | 18.82 | 31.34 | 41.57 |
| **Total** | **1,152,661** | **1,743,267** | **403,003** | **28,838** | **34,215** | **8,419** | **100.00** | **100.00** | **100.00** |

*Source: Prime Database*

**Chart 2-1: Growth of Private Placement of Debt**

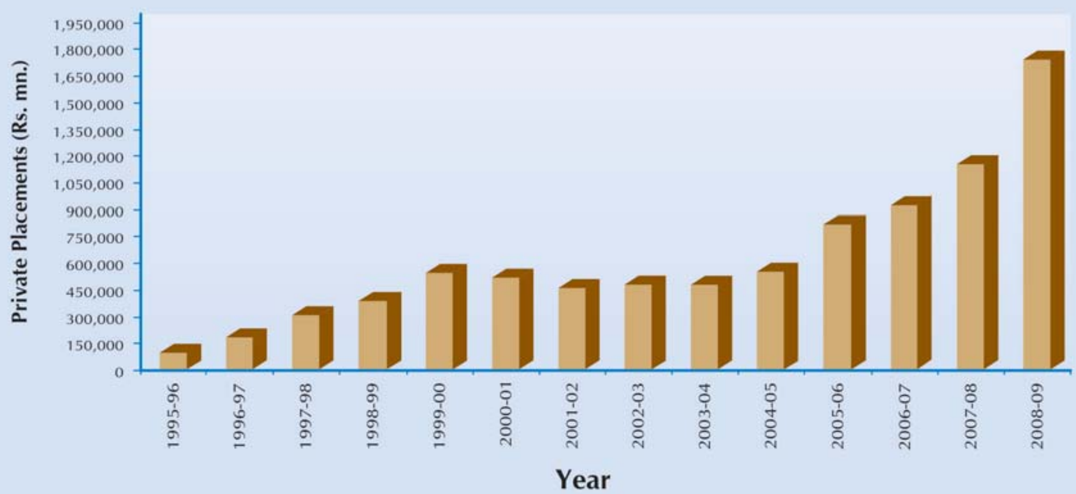
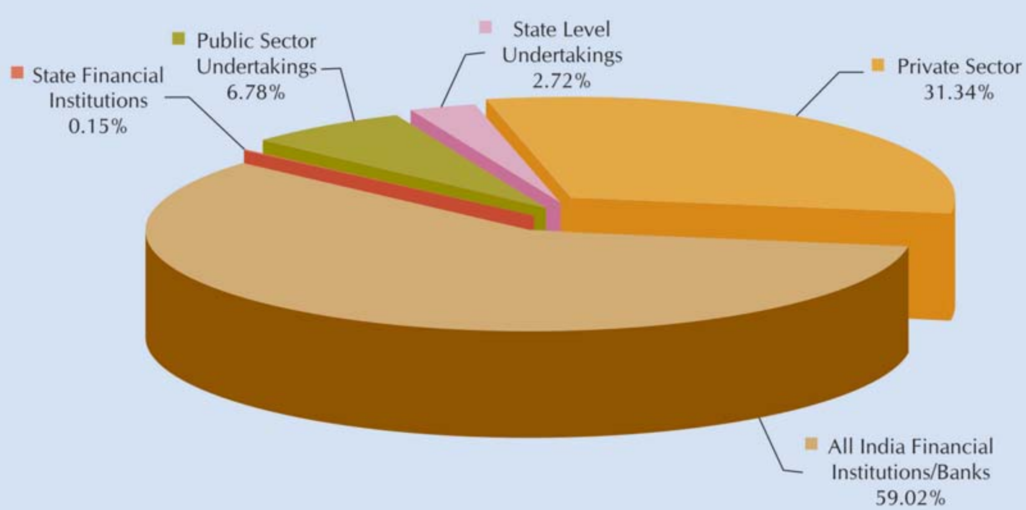



**Chart 2-2: Issuer-wise Distribution of Private Placement of Debt, 2008-09**



Mostly, debt securities were privately placed. Though, there were some instances of private placements of equity shares, there is no comprehensive data coverage of this. The two sources of information regarding private placement market in India are Prime database and RBI. The former data set, however, pertains exclusively to debt issues. RBI data, which is complied from information gathered from arrangers, covers equity private placements also. RBI estimates the share of equity in total private placements as rather insignificant. Some idea, however, can be derived from the equity shares issued by NSE-listed companies on private placement basis. A total of 286 private placements mobilised around Rs.494,855 million (US$ 10,337 million) during April 2008 to June 2009 as compared to 415 private placements amounting to Rs. 315,823 million (US$ 7,353 million) during April 2007 to June 2008 (Annexure 2-1).

Sectoral distribution shows that the banking continued to dominate the private placement market, raising 52.73 % in 2008-09, followed by financial sector , which accounted for 17.97 % during the year (Table 2-12).

**Table 2-12: Sectoral Distribution of Resources Mobilised by Private Placement**

| Sector | Percentage Share | |
|---|---|---|
| | 2007-08 | 2008-09 |
| Banking | 59.17 | 52.73 |
| Financial Services | 31.47 | 17.97 |
| Power | 3.01 | 7.27 |
| Roads & Highways | 0.33 | 0.89 |
| Travel/Transportation | 0.07 | - |
| Telecommunications | - | 2.50 |
| Others | 5.95 | 18.65 |
| **Total** | **100.00** | **100.00** |

*Source: Prime Database*

The maturity profile of issues in the private placement market ranged between 12 months to 300 months during 2008-09. The largest number of placements was for 60 months (119 placements) and 120 months (92 placements). A total of 40 offers had put option, while 84 offers had call option. Unlike public issues of bonds, it is not mandatory for corporates issuing bonds in the private placement market to obtain and disclose credit rating from an approved credit rating agency. Rating is however required for listing. Of the 792 debt private placements deals during 2008-09, 792 issues (99%) went for credit rating while 7 did not.

**Table 2-13: Resources Raised by Corporate Sector**

| Year | Public Equity Issues (Rs.mn) | Rights Issues (Rs. mn) | Debt Public Issues (Rs.mn) | Debt Private Place-ments (Rs.mn) | Total Resource Mobilisa-tion (Rs. mn) | Total Re-source Mobili-sation (US $ mn.) | Percentage Share in the Total Resource Mobili-sation | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Public Equity issues in Total Resource mobilisation | Rights Issue Total Resource mobilisa-tion | Debt Public Issues | Debt Private Place-ments (Rs.mn) |
| 1 | 2 | 3 | 4 | 5 | 6 | | | | | |
| 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 | 20,820 | 126,370 | 15,000 | 1,743,267 | 1,905,457 | 37,399 | 1.09 | 6.63 | 0.79 | 91.49 |
| April-June 2009 | 3,080 | 290 | 0 | 403,003 | 406,373 | 8,489 | 0.76 | 0.07 | 0.00 | 99.17 |

Source: Prime Data base (for Private placement) SEBI for Public issues and Right issues
Notes : Only debt placements with a tenor and put / call option of 1 year or more.

***Corporate Sector***

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

During 2008-09, total resources raised by the corporate sector decreased by 5.20% to Rs.1,905,457 million (US $ 37,399 million) as compared with gross mobilization of Rs.2,010,031 million (US$ 50,288 million). The equity route was used to raise a mere 1.09 % of the total resources through public equity shares. The share of rights issue was 6.63%. The resources raised through the debt issues (debt public issues and debt private placements) was 91.49 %.

Within the debt issue route, Rs.15,000 million (US $ 294.41) were raised through public issues while 91.49% of the resources (Rs.1,743,267 million or US $ 34,215 million) were raised through the private placement route. (Table 2-13).

**Annexure 2-1: Details of Private Placements Issues in the equity segment by NSE- listed Companies during the period April 01, 2008 to June 30, 2009**

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 1 | Aditya Birla Nuvo Limited | 1,700,000 | 3,412.67 | 71.29 | 10.00 | 0.21 | 2,007.45 | 41.94 |
| 2 | Agro Dutch Industries Limited | 1,580,000 | 43.45 | 0.91 | 10.00 | 0.21 | 27.50 | 0.57 |
| 3 | Agro Dutch Industries Limited | 1,675,000 | 46.06 | 0.96 | 10.00 | 0.21 | 27.50 | 0.57 |
| 4 | Aksh Optifibre Limited | 396,825 | 25.00 | 0.52 | 5.00 | 0.10 | 63.00 | 1.32 |
| 5 | Aksh Optifibre Limited | 406,768 | 25.00 | 0.52 | 5.00 | 0.10 | 61.46 | 1.28 |
| 6 | Aksh Optifibre Limited | 1,000,000 | 63.00 | 1.32 | 5.00 | 0.10 | 63.00 | 1.32 |
| 7 | Alkyl Amines Chemicals Ltd. | 1,333,333 | 100.00 | 2.09 | 10.00 | 0.21 | 75.00 | 1.57 |
| 8 | Allcargo Global Logistics Limited | 1,000 | 0.93 | 0.02 | 10.00 | 0.21 | 934.00 | 19.51 |
| 9 | Allied Digital Services Limited | 745,000 | 618.35 | 12.92 | 10.00 | 0.21 | 830.00 | 17.34 |
| 10 | Alok Industries Limited | 933,793 | 95.25 | 1.99 | 10.00 | 0.21 | 102.00 | 2.13 |
| 11 | Alok Industries Limited | 9,800,000 | 999.60 | 20.88 | 10.00 | 0.21 | 102.00 | 2.13 |
| 12 | Alphageo (India) Limited | 78,000 | 33.51 | 0.70 | 10.00 | 0.21 | 429.62 | 8.97 |
| 13 | Alphageo (India) Limited | 96,900 | 41.63 | 0.87 | 10.00 | 0.21 | 429.62 | 8.97 |
| 14 | Ansal Housing and Construction Limited | 150,000 | 33.75 | 0.71 | 10.00 | 0.21 | 225.00 | 4.70 |
| 15 | Ansal Housing and Construction Limited | 711,300 | 147.95 | 3.09 | 10.00 | 0.21 | 208.00 | 4.35 |
| 16 | Antarctica Ltd | 11,950,000 | 12.55 | 0.26 | 1.00 | 0.02 | 1.05 | 0.02 |
| 17 | Apollo Hospitals Enterprise Ltd | 1,550,000 | 685.95 | 14.33 | 10.00 | 0.21 | 442.55 | 9.24 |
| 18 | Apollo Hospitals Enterprise Ltd | 1,549,157 | 771.00 | 16.11 | 10.00 | 0.21 | 497.69 | 10.40 |
| 19 | Apollo Tyres Ltd | 12,420,000 | 363.91 | 7.60 | 1.00 | 0.02 | 29.30 | 0.61 |
| 20 | Apollo Tyres Ltd | 15,580,000 | 456.49 | 9.54 | 1.00 | 0.02 | 29.30 | 0.61 |
| 21 | Aptech Limited | 2,662,500 | 300.86 | 6.28 | 10.00 | 0.21 | 113.00 | 2.36 |
| 22 | Arihant Foundations & Housing Ltd | 50,000 | 23.00 | 0.48 | 10.00 | 0.21 | 460.00 | 9.61 |
| 23 | Aro Granite Industries Limited | 369,000 | 44.28 | 0.93 | 10.00 | 0.21 | 120.00 | 2.51 |
| 24 | Arvind Limited | 9,600,000 | 499.20 | 10.43 | 10.00 | 0.21 | 52.00 | 1.09 |
| 25 | Assam Company Limited | 81,000,000 | 1,883.25 | 39.34 | 1.00 | 0.02 | 23.25 | 0.49 |
| 26 | Aurionpro Solutions Limited | 629,663 | 158.68 | 3.31 | 10.00 | 0.21 | 252.00 | 5.26 |
| 27 | Aurionpro Solutions Limited | 105,337 | 26.54 | 0.55 | 10.00 | 0.21 | 252.00 | 5.26 |
| 28 | Aurionpro Solutions Limited | 225,000 | 83.25 | 1.74 | 10.00 | 0.21 | 370.00 | 7.73 |
| 29 | Aurionpro Solutions Limited | 1,262,500 | 536.56 | 11.21 | 10.00 | 0.21 | 425.00 | 8.88 |
| 30 | Aurionpro Solutions Limited | 275,000 | 116.88 | 2.44 | 10.00 | 0.21 | 425.00 | 8.88 |
| 31 | Aurionpro Solutions Limited | 150,000 | 37.80 | 0.79 | 10.00 | 0.21 | 252.00 | 5.26 |
| 32 | Autoline Industries Limited | 538,125 | 215.25 | 4.50 | 10.00 | 0.21 | 400.00 | 8.36 |
| 33 | Autoline Industries Limited | 50,000 | 20.18 | 0.42 | 10.00 | 0.21 | 403.50 | 8.43 |
| 34 | Autoline Industries Limited | 1,250,000 | 293.75 | 6.14 | 10.00 | 0.21 | 235.00 | 4.91 |
| 35 | Autolite (India) Limited | 238,000 | 5.00 | 0.10 | 10.00 | 0.21 | 21.00 | 0.44 |
| 36 | B.A.G Films and Media Limited | 9,400,000 | 565.41 | 11.81 | 2.00 | 0.04 | 60.15 | 1.26 |
| 37 | B.A.G Films and Media Limited | 5,400,000 | 70.20 | 1.47 | 2.00 | 0.04 | 13.00 | 0.27 |
| 38 | B.A.G Films and Media Limited | 4,600,000 | 59.80 | 1.25 | 2.00 | 0.04 | 13.00 | 0.27 |
| 39 | Banco Products (I) Ltd | 3,391,040 | 101.73 | 2.13 | 2.00 | 0.04 | 30.00 | 0.63 |
| 40 | Banswara Syntex Limited | 375,000 | 28.44 | 0.59 | 10.00 | 0.21 | 75.83 | 1.58 |

*Contd.*

*Contd.*

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 41 | Bartronics India Limited | 4,630,000 | 601.90 | 12.57 | 10.00 | 0.21 | 130.00 | 2.72 |
| 42 | Blue Coast Hotels and Resorts Limited | 1,150,000 | 212.75 | 4.44 | 10.00 | 0.21 | 185.00 | 3.86 |
| 43 | Blue Coast Hotels and Resorts Limited | 1,162,162 | 215.00 | 4.49 | 10.00 | 0.21 | 185.00 | 3.86 |
| 44 | BOC India Limited | 36,200,000 | 5,973.00 | 124.78 | 10.00 | 0.21 | 165.00 | 3.45 |
| 45 | Bombay Rayon Fashions Limited | 6,100,000 | 1,262.70 | 26.38 | 10.00 | 0.21 | 207.00 | 4.32 |
| 46 | Bombay Rayon Fashions Limited | 18,000,000 | 3,330.00 | 69.56 | 10.00 | 0.21 | 185.00 | 3.86 |
| 47 | Cairn India Limited | 113,000,000 | 25,345.90 | 529.47 | 10.00 | 0.21 | 224.30 | 4.69 |
| 48 | Cinevistaas Limited | 6,768,975 | 31.81 | 0.66 | 2.00 | 0.04 | 4.70 | 0.10 |
| 49 | Classic Diamonds (India) Limited | 1,000,000 | 56.00 | 1.17 | 2.00 | 0.04 | 56.00 | 1.17 |
| 50 | Core Projects and Technologies Limited | 1,650,000 | 330.00 | 6.89 | 2.00 | 0.04 | 200.00 | 4.18 |
| 51 | Cranes Software International Limited | 3,098,880 | 387.36 | 8.09 | 2.00 | 0.04 | 125.00 | 2.61 |
| 52 | Cubex Tubings Ltd. | 825,000 | 39.60 | 0.83 | 10.00 | 0.21 | 48.00 | 1.00 |
| 53 | Cubex Tubings Ltd. | 1,170,000 | 56.16 | 1.17 | 10.00 | 0.21 | 48.00 | 1.00 |
| 54 | Cybertech Systems And Software Ltd. | 1,750,000 | 23.19 | 0.48 | 10.00 | 0.21 | 13.25 | 0.28 |
| 55 | Delta Corp Limited | 10,164,610 | 411.67 | 8.60 | 1.00 | 0.02 | 40.50 | 0.85 |
| 56 | Delta Corp Limited | 20,315,670 | 822.78 | 17.19 | 1.00 | 0.02 | 40.50 | 0.85 |
| 57 | Dwarikesh Sugar Industries Limited | 750,000 | 75.15 | 1.57 | 10.00 | 0.21 | 100.20 | 2.09 |
| 58 | Dynamatic Technologies Ltd. | 604,000 | 745.34 | 15.57 | 10.00 | 0.21 | 1,234.00 | 25.78 |
| 59 | Easun Reyrolle Ltd | 914,719 | 120.74 | 2.52 | 2.00 | 0.04 | 132.00 | 2.76 |
| 60 | Easun Reyrolle Ltd | 390,281 | 51.52 | 1.08 | 2.00 | 0.04 | 132.00 | 2.76 |
| 61 | Electrosteel Castings Ltd | 2,030,000 | 138.04 | 2.88 | 1.00 | 0.02 | 68.00 | 1.42 |
| 62 | Electrosteel Castings Ltd | 1,200,000 | 52.56 | 1.10 | 1.00 | 0.02 | 43.80 | 0.91 |
| 63 | Electrosteel Castings Ltd | 6,250,000 | 273.75 | 5.72 | 1.00 | 0.02 | 43.80 | 0.91 |
| 64 | Electrotherm (India) Ltd. | 1,366,666 | 820.00 | 17.13 | 10.00 | 0.21 | 600.00 | 12.53 |
| 65 | Electrotherm (India) Ltd. | 475,000 | 285.00 | 5.95 | 10.00 | 0.21 | 600.00 | 12.53 |
| 66 | Electrotherm (India) Ltd. | 500,000 | 300.00 | 6.27 | 10.00 | 0.21 | 600.00 | 12.53 |
| 67 | Era Infra Engineering Limited | 725,000 | 97.88 | 2.04 | 10.00 | 0.21 | 135.00 | 2.82 |
| 68 | Era Infra Engineering Limited | 27,500,000 | 2,337.50 | 48.83 | 2.00 | 0.04 | 85.00 | 1.78 |
| 69 | Escorts Ltd | 3,611,610 | 302.62 | 6.32 | 10.00 | 0.21 | 83.79 | 1.75 |
| 70 | Everonn Education Limited | 1,269,219 | 913.89 | 19.09 | 10.00 | 0.21 | 720.04 | 15.04 |
| 71 | Fresenius Kabi Oncology Limited | 1,550,255 | 71.25 | 1.49 | 1.00 | 0.02 | 45.96 | 0.96 |
| 72 | Garware Wall Ropes Ltd. | 998,000 | 66.37 | 1.39 | 10.00 | 0.21 | 66.50 | 1.39 |
| 73 | Garware Wall Ropes Ltd. | 1,996,000 | 132.73 | 2.77 | 10.00 | 0.21 | 66.50 | 1.39 |
| 74 | Garware Offshore Services Limited | 352,500 | 35.25 | 0.74 | 10.00 | 0.21 | 100.00 | 2.09 |
| 75 | Garware Offshore Services Limited | 2,272,727 | 250.00 | 5.22 | 10.00 | 0.21 | 110.00 | 2.30 |
| 76 | Garware Offshore Services Limited | 280,100 | 28.01 | 0.59 | 10.00 | 0.21 | 100.00 | 2.09 |
| 77 | GATI Limited | 2,493,000 | 224.37 | 4.69 | 2.00 | 0.04 | 90.00 | 1.88 |
| 78 | GATI Limited | 4,135,000 | 372.15 | 7.77 | 2.00 | 0.04 | 90.00 | 1.88 |
| 79 | Gemini Communication Limited | 500,000 | 17.25 | 0.36 | 1.00 | 0.02 | 34.50 | 0.72 |
| 80 | Genesys International Corporation Limited | 2,955,000 | 56.15 | 1.17 | 10.00 | 0.21 | 19.00 | 0.40 |
| 81 | Genesys International Corporation Limited | 400,000 | 7.60 | 0.16 | 10.00 | 0.21 | 19.00 | 0.40 |

*Contd.*

*Contd.*

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 82 | Genus Power Infrastructures Limited | 300,000 | 59.70 | 1.25 | 10.00 | 0.21 | 199.00 | 4.16 |
| 83 | Genus Power Infrastructures Limited | 700,000 | 139.30 | 2.91 | 10.00 | 0.21 | 199.00 | 4.16 |
| 84 | Geojit BNP Paribas Financial Services Limited | 13,910,514 | 361.67 | 7.56 | 1.00 | 0.02 | 26.00 | 0.54 |
| 85 | Goldstone Infratech Limited | 15,000,000 | 330.00 | 6.89 | 4.00 | 0.08 | 22.00 | 0.46 |
| 86 | Goldstone Technologies Ltd. | 35,918 | 4.38 | 0.09 | 10.00 | 0.21 | 122.00 | 2.55 |
| 87 | Goldstone Technologies Ltd. | 344,828 | 50.00 | 1.04 | 10.00 | 0.21 | 145.00 | 3.03 |
| 88 | GTL Infrastructure Limited | 33,741,060 | 1,349.64 | 28.19 | 10.00 | 0.21 | 40.00 | 0.84 |
| 89 | GTL Infrastructure Limited | 1,700,000 | 68.00 | 1.42 | 10.00 | 0.21 | 40.00 | 0.84 |
| 90 | GTL Infrastructure Limited | 35,563,925 | 1,422.56 | 29.72 | 10.00 | 0.21 | 40.00 | 0.84 |
| 91 | GTL Infrastructure Limited | 24,500,000 | 980.00 | 20.47 | 10.00 | 0.21 | 40.00 | 0.84 |
| 92 | GTL Infrastructure Limited | 1,500,000 | 60.00 | 1.25 | 10.00 | 0.21 | 40.00 | 0.84 |
| 93 | Gujarat NRE Coke Ltd. | 2,500,000 | 300.00 | 6.27 | 10.00 | 0.21 | 120.00 | 2.51 |
| 94 | Havells India Limited | 2,250,000 | 1,552.50 | 32.43 | 5.00 | 0.10 | 690.00 | 14.41 |
| 95 | Heritage Foods (India) Ltd. | 1,000,000 | 350.00 | 7.31 | 10.00 | 0.21 | 350.00 | 7.31 |
| 96 | Heritage Foods (India) Ltd. | 539,500 | 138.11 | 2.89 | 10.00 | 0.21 | 256.00 | 5.35 |
| 97 | Hikal Limited | 1,360,000 | 644.64 | 13.47 | 10.00 | 0.21 | 474.00 | 9.90 |
| 98 | Himadri Chemicals And Industries Ltd | 340,000 | 77.95 | 1.63 | 10.00 | 0.21 | 229.25 | 4.79 |
| 99 | Himatsingka Seide Ltd | 256,000 | 33.28 | 0.70 | 5.00 | 0.10 | 130.00 | 2.72 |
| 100 | Horizon Infrastructure Limited | 500,000 | 16.50 | 0.34 | 10.00 | 0.21 | 33.00 | 0.69 |
| 101 | ibn18 Broadcast Limited | 5,500,000 | 976.80 | 20.41 | 2.00 | 0.04 | 177.60 | 3.71 |
| 102 | ibn18 Broadcast Limited | 12,500,000 | 1,275.00 | 26.63 | 2.00 | 0.04 | 102.00 | 2.13 |
| 103 | ibn18 Broadcast Limited | 11,204,508 | 1,142.86 | 23.87 | 2.00 | 0.04 | 102.00 | 2.13 |
| 104 | ICSA (India) Limited | 2,650,000 | 601.55 | 12.57 | 2.00 | 0.04 | 227.00 | 4.74 |
| 105 | Idea Cellular Limited | 413,094,098 | 64,839.25 | 1,354.49 | 10.00 | 0.21 | 156.96 | 3.28 |
| 106 | Idea Cellular Limited | 51,640,572 | 8,105.50 | 169.32 | 10.00 | 0.21 | 156.96 | 3.28 |
| 107 | Ifb Agro Industries Ltd | 300,000 | 20.10 | 0.42 | 10.00 | 0.21 | 67.00 | 1.40 |
| 108 | Ifb Industries Ltd. | 1,850,000 | 86.95 | 1.82 | 10.00 | 0.21 | 47.00 | 0.98 |
| 109 | IFCI Limited | 123,737,735 | 13,239.94 | 276.58 | 10.00 | 0.21 | 107.00 | 2.24 |
| 110 | IMP Powers Ltd | 100,000 | 16.10 | 0.34 | 10.00 | 0.21 | 161.00 | 3.36 |
| 111 | IMP Powers Ltd | 150,000 | 24.15 | 0.50 | 10.00 | 0.21 | 161.00 | 3.36 |
| 112 | IMP Powers Ltd | 1,180,000 | 189.98 | 3.97 | 10.00 | 0.21 | 161.00 | 3.36 |
| 113 | Indiabulls Real Estate Limited | 143,594,593 | 26,565.00 | 554.94 | 2.00 | 0.04 | 185.00 | 3.86 |
| 114 | Indo Asian Fusegear Limited | 750,000 | 120.00 | 2.51 | 10.00 | 0.21 | 160.00 | 3.34 |
| 115 | Ind-Swift Laboratories Ltd. | 1,196,000 | 83.72 | 1.75 | 10.00 | 0.21 | 70.00 | 1.46 |
| 116 | Ind-Swift Laboratories Ltd. | 569,000 | 39.83 | 0.83 | 10.00 | 0.21 | 70.00 | 1.46 |
| 117 | Ind-Swift Laboratories Ltd. | 350,000 | 24.50 | 0.51 | 10.00 | 0.21 | 70.00 | 1.46 |
| 118 | Ind-Swift Laboratories Ltd. | 322,000 | 22.54 | 0.47 | 10.00 | 0.21 | 70.00 | 1.46 |
| 119 | Infotech Enterprises Ltd | 2,724,000 | 980.64 | 20.49 | 5.00 | 0.10 | 360.00 | 7.52 |
| 120 | IOL Netcom Limited | 700,000 | 66.50 | 1.39 | 10.00 | 0.21 | 95.00 | 1.98 |
| 121 | ISMT Limited | 2,108,627 | 100.16 | 2.09 | 5.00 | 0.10 | 47.50 | 0.99 |
| 122 | Jain Irrigation Systems Limited | 2,500,000 | 996.25 | 20.81 | 10.00 | 0.21 | 398.50 | 8.32 |

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*Contd.*

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 123 | Jain Irrigation Systems Limited | 1,102,600 | 527.21 | 11.01 | 10.00 | 0.21 | 478.15 | 9.99 |
| 124 | Jain Irrigation Systems Limited | 1,997,780 | 720.00 | 15.04 | 10.00 | 0.21 | 360.40 | 7.53 |
| 125 | Jaiprakash Associates Limited | 10,000,000 | 3,970.00 | 82.93 | 2.00 | 0.04 | 397.00 | 8.29 |
| 126 | Jayant Agro Organics Ltd. | 600,000 | 63.00 | 1.32 | 5.00 | 0.10 | 105.00 | 2.19 |
| 127 | Jayant Agro Organics Ltd. | 690,000 | 44.85 | 0.94 | 5.00 | 0.10 | 65.00 | 1.36 |
| 128 | Jayant Agro Organics Ltd. | 1,110,000 | 72.15 | 1.51 | 5.00 | 0.10 | 65.00 | 1.36 |
| 129 | JBF Industries Ltd. | 2,500,000 | 306.25 | 6.40 | 10.00 | 0.21 | 122.50 | 2.56 |
| 130 | JCT Electronics Limited | 641,000,000 | 641.00 | 13.39 | 1.00 | 0.02 | 1.00 | 0.02 |
| 131 | JCT Electronics Limited | 109,226,070 | 502.44 | 10.50 | 1.00 | 0.02 | 4.60 | 0.10 |
| 132 | JHS Svendgaard Laboratories Limited | 400,000 | 18.40 | 0.38 | 10.00 | 0.21 | 46.00 | 0.96 |
| 133 | JIK Industries Limited | 854,941 | 20.18 | 0.42 | 10.00 | 0.21 | 23.60 | 0.49 |
| 134 | JIK Industries Limited | 132,000 | 1.82 | 0.04 | 10.00 | 0.21 | 13.80 | 0.29 |
| 135 | JIK Industries Limited | 5,102,010 | 51.02 | 1.07 | 10.00 | 0.21 | 10.00 | 0.21 |
| 136 | JIK Industries Limited | 16,138,115 | 222.71 | 4.65 | 10.00 | 0.21 | 13.80 | 0.29 |
| 137 | JIK Industries Limited | 463,950 | 4.64 | 0.10 | 10.00 | 0.21 | 10.00 | 0.21 |
| 138 | JIK Industries Limited | 513,050 | 5.13 | 0.11 | 10.00 | 0.21 | 10.00 | 0.21 |
| 139 | JIK Industries Limited | 2,465,800 | 24.66 | 0.52 | 10.00 | 0.21 | 10.00 | 0.21 |
| 140 | Jindal Drilling And Industries Limited | 1,200,000 | 1,536.00 | 32.09 | 10.00 | 0.21 | 1,280.00 | 26.74 |
| 141 | JK Lakshmi Cement Limited | 4,102,500 | 399.99 | 8.36 | 10.00 | 0.21 | 97.50 | 2.04 |
| 142 | JMT Auto Limited | 300,000 | 32.45 | 0.68 | 10.00 | 0.21 | 108.15 | 2.26 |
| 143 | JSL Limited | 3,972,450 | 409.16 | 8.55 | 2.00 | 0.04 | 103.00 | 2.15 |
| 144 | JSL Limited | 7,550,000 | 777.65 | 16.25 | 2.00 | 0.04 | 103.00 | 2.15 |
| 145 | JSW Steel Limited | 8,000,000 | 2,176.00 | 45.46 | 10.00 | 0.21 | 272.00 | 5.68 |
| 146 | K S Oils Limited | 17,083,440 | 307.50 | 6.42 | 1.00 | 0.02 | 18.00 | 0.38 |
| 147 | K S Oils Limited | 23,866,350 | 1,000.00 | 20.89 | 1.00 | 0.02 | 41.90 | 0.88 |
| 148 | Kalindee Rail Nirman (Engineers) Limited | 230,000 | 36.00 | 0.75 | 10.00 | 0.21 | 156.50 | 3.27 |
| 149 | Karuturi Global Limited | 47,000,000 | 775.50 | 16.20 | 1.00 | 0.02 | 16.50 | 0.34 |
| 150 | Karuturi Global Limited | 71,350,000 | 1,177.28 | 24.59 | 1.00 | 0.02 | 16.50 | 0.34 |
| 151 | KDL Biotech Limited | 7,272,727 | 87.27 | 1.82 | 10.00 | 0.21 | 12.00 | 0.25 |
| 152 | Khandwala Securities Limited | 556,000 | 26.69 | 0.56 | 10.00 | 0.21 | 48.00 | 1.00 |
| 153 | Kinetic Motor Company Limited | 1,000,000 | 65.00 | 1.36 | 10.00 | 0.21 | 65.00 | 1.36 |
| 154 | Klg Systel Ltd. | 535,000 | 139.64 | 2.92 | 10.00 | 0.21 | 261.00 | 5.45 |
| 155 | Klg Systel Ltd. | 535,000 | 139.64 | 2.92 | 10.00 | 0.21 | 261.00 | 5.45 |
| 156 | Kopran Ltd. | 1,762,500 | 45.35 | 0.95 | 10.00 | 0.21 | 25.73 | 0.54 |
| 157 | Lakshmi Energy and Foods Limited | 3,150,000 | 589.05 | 12.31 | 2.00 | 0.04 | 187.00 | 3.91 |
| 158 | Logix Microsystems Limited | 425,000 | 106.25 | 2.22 | 10.00 | 0.21 | 250.00 | 5.22 |
| 159 | Lyka Labs Ltd | 275,000 | 11.41 | 0.24 | 10.00 | 0.21 | 41.50 | 0.87 |
| 160 | Lyka Labs Ltd | 520,000 | 28.60 | 0.60 | 10.00 | 0.21 | 55.00 | 1.15 |
| 161 | Lyka Labs Ltd | 650,000 | 26.98 | 0.56 | 10.00 | 0.21 | 41.50 | 0.87 |
| 162 | Maars Software International Ltd. | 7,720,000 | 77.20 | 1.61 | 10.00 | 0.21 | 10.00 | 0.21 |
| 163 | Magma Fincorp Limited | 1,614,300 | 322.86 | 6.74 | 10.00 | 0.21 | 200.00 | 4.18 |

*Contd.*

*Contd.*

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 164 | Maharashtra Seamless Ltd | 1 | 0.00 | 0.00 | 5.00 | 0.10 | 675.00 | 14.10 |
| 165 | Malwa Cotton Spg. Mills Ltd | 634,920 | 40.00 | 0.84 | 10.00 | 0.21 | 63.00 | 1.32 |
| 166 | Marksans Pharma Limited | 8,400,241 | 169.01 | 3.53 | 1.00 | 0.02 | 20.12 | 0.42 |
| 167 | Mcnally Bharat Engineering Company Limited | 1,453,000 | 209.65 | 4.38 | 10.00 | 0.21 | 144.29 | 3.01 |
| 168 | Micro Technologies (India) Limited | 200,000 | 50.08 | 1.05 | 10.00 | 0.21 | 250.40 | 5.23 |
| 169 | Mid-Day Multimedia Limited | 1,666,666 | 100.00 | 2.09 | 10.00 | 0.21 | 60.00 | 1.25 |
| 170 | Morepen Laboratories Ltd | 10,540,000 | 115.94 | 2.42 | 2.00 | 0.04 | 11.00 | 0.23 |
| 171 | NCL Industries Limited | 900,000 | 40.50 | 0.85 | 10.00 | 0.21 | 45.00 | 0.94 |
| 172 | NCL Industries Limited | 515,748 | 23.21 | 0.48 | 10.00 | 0.21 | 45.00 | 0.94 |
| 173 | NCL Industries Limited | 800,000 | 36.00 | 0.75 | 10.00 | 0.21 | 45.00 | 0.94 |
| 174 | Neocure Therapeutics Ltd | 2,996,500 | 38.95 | 0.81 | 10.00 | 0.21 | 13.00 | 0.27 |
| 175 | Network18 Media & Investments Limited | 15,762,889 | 2,049.18 | 42.81 | 5.00 | 0.10 | 130.00 | 2.72 |
| 176 | Nuchem Ltd | 750,000 | 7.50 | 0.16 | 10.00 | 0.21 | 10.00 | 0.21 |
| 177 | Onward Technologies Ltd | 625,000 | 59.38 | 1.24 | 10.00 | 0.21 | 95.00 | 1.98 |
| 178 | Opto Circuits (India) Limited | 540,000 | 194.40 | 4.06 | 10.00 | 0.21 | 360.00 | 7.52 |
| 179 | Orchid Chemicals & Pharmaceuticals Ltd | 381,000 | 77.18 | 1.61 | 10.00 | 0.21 | 202.58 | 4.23 |
| 180 | Orchid Chemicals & Pharmaceuticals Ltd | 4,179,000 | 846.58 | 17.69 | 10.00 | 0.21 | 202.58 | 4.23 |
| 181 | Pantaloon Retail (India) Ltd. | 4,040,056 | 2,020.03 | 42.20 | 2.00 | 0.04 | 500.00 | 10.44 |
| 182 | Pantaloon Retail (India) Ltd. | 4,500,000 | 2,250.00 | 47.00 | 2.00 | 0.04 | 500.00 | 10.44 |
| 183 | Parekh Aluminex Limited | 2,750,000 | 715.00 | 14.94 | 10.00 | 0.21 | 260.00 | 5.43 |
| 184 | Parekh Aluminex Limited | 790,000 | 90.85 | 1.90 | 10.00 | 0.21 | 115.00 | 2.40 |
| 185 | Patel Integrated Logistics Limited | 1,800,000 | 133.20 | 2.78 | 10.00 | 0.21 | 74.00 | 1.55 |
| 186 | Pearl Polymers Ltd | 585,277 | 12.19 | 0.25 | 10.00 | 0.21 | 20.83 | 0.44 |
| 187 | Phillips Carbon Black Ltd. | 3,000,000 | 447.00 | 9.34 | 10.00 | 0.21 | 149.00 | 3.11 |
| 188 | Pioneer Embroideries Limited | 170,000 | 17.34 | 0.36 | 10.00 | 0.21 | 102.00 | 2.13 |
| 189 | Pitti Laminations Limited | 240,000 | 28.80 | 0.60 | 10.00 | 0.21 | 120.00 | 2.51 |
| 190 | Ponni Sugars (Erode) Limited | 400,000 | 20.00 | 0.42 | 10.00 | 0.21 | 50.00 | 1.04 |
| 191 | Prajay Engineers Syndicate Limited | 622,000 | 39.50 | 0.83 | 10.00 | 0.21 | 63.50 | 1.33 |
| 192 | Prajay Engineers Syndicate Limited | 10,000 | 1.83 | 0.04 | 10.00 | 0.21 | 183.00 | 3.82 |
| 193 | Prajay Engineers Syndicate Limited | 728,000 | 46.23 | 0.97 | 10.00 | 0.21 | 63.50 | 1.33 |
| 194 | Prajay Engineers Syndicate Limited | 277,800 | 50.84 | 1.06 | 10.00 | 0.21 | 183.00 | 3.82 |
| 195 | Prajay Engineers Syndicate Limited | 257,740 | 47.17 | 0.99 | 10.00 | 0.21 | 183.00 | 3.82 |
| 196 | Prajay Engineers Syndicate Limited | 3,374,260 | 617.49 | 12.90 | 10.00 | 0.21 | 183.00 | 3.82 |
| 197 | Prakash Industries Ltd | 15,000,000 | 150.00 | 3.13 | 10.00 | 0.21 | 10.00 | 0.21 |
| 198 | Prakash Industries Ltd | 15,000,000 | 150.00 | 3.13 | 10.00 | 0.21 | 10.00 | 0.21 |
| 199 | Prakash Industries Ltd | 6,250,000 | 1,187.50 | 24.81 | 10.00 | 0.21 | 190.00 | 3.97 |
| 200 | Premier Limited | 1,986,674 | 78.33 | 1.64 | 10.00 | 0.21 | 39.43 | 0.82 |
| 201 | Premier Limited | 2,318,053 | 91.40 | 1.91 | 10.00 | 0.21 | 39.43 | 0.82 |
| 202 | Prime Securities Limited | 1,870,000 | 514.25 | 10.74 | 5.00 | 0.10 | 275.00 | 5.74 |
| 203 | Provogue (India) Limited | 900,000 | 405.00 | 8.46 | 10.00 | 0.21 | 450.00 | 9.40 |
| 204 | Provogue (India) Limited | 2,850,000 | 3,135.00 | 65.49 | 10.00 | 0.21 | 1,100.00 | 22.98 |

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*Contd.*

| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 205 | Provogue (India) Limited | 2,168,665 | 195.18 | 4.08 | 2.00 | 0.04 | 90.00 | 1.88 |
| 206 | PTC India Limited | 66,665,600 | 4,999.92 | 104.45 | 10.00 | 0.21 | 75.00 | 1.57 |
| 207 | Radha Madhav Corporation Limited | 450,000 | 20.25 | 0.42 | 10.00 | 0.21 | 45.00 | 0.94 |
| 208 | Radha Madhav Corporation Limited | 3,150,000 | 267.75 | 5.59 | 10.00 | 0.21 | 85.00 | 1.78 |
| 209 | Radha Madhav Corporation Limited | 2,500,000 | 100.00 | 2.09 | 10.00 | 0.21 | 40.00 | 0.84 |
| 210 | Radico Khaitan Limited | 5,768,276 | 920.04 | 19.22 | 2.00 | 0.04 | 159.50 | 3.33 |
| 211 | Rain Commodities Limited | 3,500,000 | 700.00 | 14.62 | 10.00 | 0.21 | 200.00 | 4.18 |
| 212 | Rain Commodities Limited | 1,563,293 | 312.66 | 6.53 | 10.00 | 0.21 | 200.00 | 4.18 |
| 213 | Ranbaxy Laboratories Ltd | 46,258,063 | 34,092.19 | 712.18 | 5.00 | 0.10 | 737.00 | 15.40 |
| 214 | Rane Brake Lining Limited | 700,000 | 35.00 | 0.73 | 10.00 | 0.21 | 50.00 | 1.04 |
| 215 | Reliance Industries Ltd | 120,000,000 | 168,240.00 | 3,514.52 | 10.00 | 0.21 | 1,402.00 | 29.29 |
| 216 | Rohit Ferro-Tech Limited | 2,475,000 | 106.43 | 2.22 | 10.00 | 0.21 | 43.00 | 0.90 |
| 217 | Rohit Ferro-Tech Limited | 2,545,000 | 109.44 | 2.29 | 10.00 | 0.21 | 43.00 | 0.90 |
| 218 | Rpg Cables Ltd | 1,275,000 | 59.03 | 1.23 | 10.00 | 0.21 | 46.30 | 0.97 |
| 219 | Rpg Cables Ltd | 8,160,011 | 377.81 | 7.89 | 10.00 | 0.21 | 46.30 | 0.97 |
| 220 | Ruchi Soya Industries Ltd. | 6,400,000 | 496.00 | 10.36 | 2.00 | 0.04 | 77.50 | 1.62 |
| 221 | S. Kumars Nationwide Ltd | 5,300,000 | 437.25 | 9.13 | 10.00 | 0.21 | 82.50 | 1.72 |
| 222 | Sagar Cements Ltd. | 665,000 | 54.53 | 1.14 | 10.00 | 0.21 | 82.00 | 1.71 |
| 223 | Sagar Cements Ltd. | 1,000,000 | 700.00 | 14.62 | 10.00 | 0.21 | 700.00 | 14.62 |
| 224 | Sah Petroleums Limited | 12,000,000 | 319.80 | 6.68 | 5.00 | 0.10 | 26.65 | 0.56 |
| 225 | Sambhaav Media Limited | 13,282,800 | 132.83 | 2.77 | 1.00 | 0.02 | 10.00 | 0.21 |
| 226 | Sanghvi Movers Ltd. | 879,580 | 123.14 | 2.57 | 2.00 | 0.04 | 140.00 | 2.92 |
| 227 | Satyam Computer Services Ltd | 302,764,327 | 17,560.33 | 366.83 | 2.00 | 0.04 | 58.00 | 1.21 |
| 228 | Sb&T International Ltd | 500,000 | 20.00 | 0.42 | 10.00 | 0.21 | 40.00 | 0.84 |
| 229 | SEL Manufacturing Company Limited | 1,400,000 | 259.00 | 5.41 | 10.00 | 0.21 | 185.00 | 3.86 |
| 230 | SEL Manufacturing Company Limited | 550,000 | 101.75 | 2.13 | 10.00 | 0.21 | 185.00 | 3.86 |
| 231 | Shree Renuka Sugars Limited | 6,000,000 | 375.42 | 7.84 | 1.00 | 0.02 | 62.57 | 1.31 |
| 232 | Shri Lakshmi Cotsyn Limited | 700,000 | 90.30 | 1.89 | 10.00 | 0.21 | 129.00 | 2.69 |
| 233 | Shri Lakshmi Cotsyn Limited | 400,000 | 51.60 | 1.08 | 10.00 | 0.21 | 129.00 | 2.69 |
| 234 | Shriram City Union Finance Limited | 2,055,000 | 328.80 | 6.87 | 10.00 | 0.21 | 160.00 | 3.34 |
| 235 | Shriram City Union Finance Limited | 1,837,500 | 735.00 | 15.35 | 10.00 | 0.21 | 400.00 | 8.36 |
| 236 | Shriram City Union Finance Limited | 1,412,500 | 565.00 | 11.80 | 10.00 | 0.21 | 400.00 | 8.36 |
| 237 | Shriram City Union Finance Limited | 1,445,000 | 231.20 | 4.83 | 10.00 | 0.21 | 160.00 | 3.34 |
| 238 | Simbhaoli Sugars Limited | 746,000 | 31.74 | 0.66 | 10.00 | 0.21 | 42.55 | 0.89 |
| 239 | Simbhaoli Sugars Limited | 750,000 | 31.91 | 0.67 | 10.00 | 0.21 | 42.55 | 0.89 |
| 240 | Simplex Infrastructures Limited | 200,000 | 80.20 | 1.68 | 2.00 | 0.04 | 401.00 | 8.38 |
| 241 | Sintex Industries Ltd. | 2,688,000 | 1,222.34 | 25.53 | 2.00 | 0.04 | 454.74 | 9.50 |
| 242 | Softpro Systems Limited | 725,000 | 65.25 | 1.36 | 10.00 | 0.21 | 90.00 | 1.88 |
| 243 | Sona Koyo Steering Systems Ltd. | 2,423,681 | 162.63 | 3.40 | 2.00 | 0.04 | 67.10 | 1.40 |
| 244 | SREI Infrastructure Finance Limited | 7,200,000 | 720.00 | 15.04 | 10.00 | 0.21 | 100.00 | 2.09 |
| 245 | Steel Strips Wheels Limited | 1,255,856 | 213.50 | 4.46 | 10.00 | 0.21 | 170.00 | 3.55 |

*Contd.*

*Contd.*

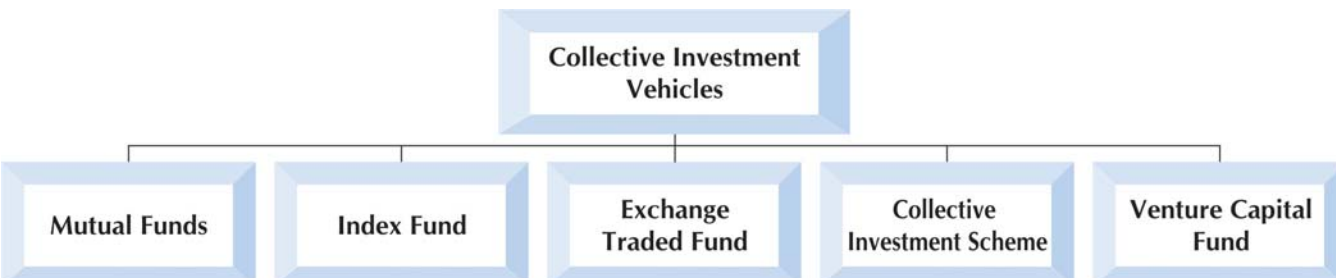
| Sr. No. | Company Name | Number of Securities issued | Funds Raised (Rs. mn.) | Funds Raised (US $ mn.) | Par Value (Rs.) | Par Value (US $.) | Issue Price (Rs.) | Issue Price (US $) |
|---|---|---|---|---|---|---|---|---|
| 246 | Steel Strips Wheels Limited | 507,614 | 100.00 | 2.09 | 10.00 | 0.21 | 197.00 | 4.12 |
| 247 | Sterlite Technologies Limited | 2,800,000 | 280.00 | 5.85 | 5.00 | 0.10 | 100.00 | 2.09 |
| 248 | Strides Arcolab Limited | 4,000,000 | 1,600.00 | 33.42 | 10.00 | 0.21 | 400.00 | 8.36 |
| 249 | Strides Arcolab Limited | 1,045,725 | 418.29 | 8.74 | 10.00 | 0.21 | 400.00 | 8.36 |
| 250 | Sujana Universal Industries Limited | 4,979,253 | 120.00 | 2.51 | 10.00 | 0.21 | 24.10 | 0.50 |
| 251 | Summit Securities Limited | 5,180,000 | 160.58 | 3.35 | 10.00 | 0.21 | 31.00 | 0.65 |
| 252 | Su-Raj Diamonds and Jewellery Limited | 3,620,000 | 307.70 | 6.43 | 10.00 | 0.21 | 85.00 | 1.78 |
| 253 | Surana Corporation Limited | 2,500,000 | 500.00 | 10.44 | 10.00 | 0.21 | 200.00 | 4.18 |
| 254 | Suryajyoti Spinning Mills Limited | 1,300,200 | 65.01 | 1.36 | 10.00 | 0.21 | 50.00 | 1.04 |
| 255 | Suryajyoti Spinning Mills Limited | 700,000 | 11.20 | 0.23 | 10.00 | 0.21 | 16.00 | 0.33 |
| 256 | Talbros Automotive Components Limited | 556,000 | 36.14 | 0.75 | 10.00 | 0.21 | 65.00 | 1.36 |
| 257 | Talbros Automotive Components Limited | 410,000 | 26.65 | 0.56 | 10.00 | 0.21 | 65.00 | 1.36 |
| 258 | Techno Electric and Engineering Co Ltd | 1,600,000 | 128.00 | 2.67 | 2.00 | 0.04 | 80.00 | 1.67 |
| 259 | Television Eighteen India Ltd. | 2,700,000 | 1,074.60 | 22.45 | 5.00 | 0.10 | 398.00 | 8.31 |
| 260 | Television Eighteen India Ltd. | 100,000 | 39.80 | 0.83 | 5.00 | 0.10 | 398.00 | 8.31 |
| 261 | The Great Eastern Shipping Co. Limited | 10,000 | 3.13 | 0.07 | 10.00 | 0.21 | 312.75 | 6.53 |
| 262 | Tourism Finance Corpn Of India Ltd | 13,297,648 | 638.29 | 13.33 | 10.00 | 0.21 | 48.00 | 1.00 |
| 263 | UFLEX Limited | 8,735,000 | 1,790.68 | 37.41 | 10.00 | 0.21 | 205.00 | 4.28 |
| 264 | Unitech Ltd | 421,064,935 | 16,211.00 | 338.65 | 2.00 | 0.04 | 38.50 | 0.80 |
| 265 | United Phosphorus Limited | 6,087,100 | 2,069.61 | 43.23 | 2.00 | 0.04 | 340.00 | 7.10 |
| 266 | UTV Software Communications Limited | 519,500 | 100.00 | 2.09 | 10.00 | 0.21 | 192.50 | 4.02 |
| 267 | UTV Software Communications Limited | 1,429,860 | 275.25 | 5.75 | 10.00 | 0.21 | 192.50 | 4.02 |
| 268 | UTV Software Communications Limited | 9,352,500 | 8,050.54 | 168.18 | 10.00 | 0.21 | 860.79 | 17.98 |
| 269 | Vakrangee Softwares Limited | 2,250,000 | 542.25 | 11.33 | 10.00 | 0.21 | 241.00 | 5.03 |
| 270 | Viceroy Hotels Limited | 2,457,026 | 214.99 | 4.49 | 10.00 | 0.21 | 87.50 | 1.83 |
| 271 | Viceroy Hotels Limited | 471,250 | 47.13 | 0.98 | 10.00 | 0.21 | 100.00 | 2.09 |
| 272 | Viceroy Hotels Limited | 5,216,250 | 521.63 | 10.90 | 10.00 | 0.21 | 100.00 | 2.09 |
| 273 | Vijay Shanthi Builders Limited | 630,000 | 35.28 | 0.74 | 10.00 | 0.21 | 56.00 | 1.17 |
| 274 | Visu International Limited | 2,500,000 | 43.75 | 0.91 | 10.00 | 0.21 | 17.50 | 0.37 |
| 275 | VLS Finance Ltd. | 100,000 | 40.00 | 0.84 | 10.00 | 0.21 | 400.00 | 8.36 |
| 276 | Walchandnagar Industries Ltd | 615,345 | 78.03 | 1.63 | 2.00 | 0.04 | 126.80 | 2.65 |
| 277 | Walchandnagar Industries Ltd | 1,500,000 | 190.20 | 3.97 | 2.00 | 0.04 | 126.80 | 2.65 |
| 278 | Walchandnagar Industries Ltd | 1,884,655 | 238.97 | 4.99 | 2.00 | 0.04 | 126.80 | 2.65 |
| 279 | Websol Energy Systems Limited | 107,000 | 37.45 | 0.78 | 10.00 | 0.21 | 350.00 | 7.31 |
| 280 | Welspun Gujarat Stahl Rohren Limited | 6,000,000 | 613.20 | 12.81 | 5.00 | 0.10 | 102.20 | 2.13 |
| 281 | Welspun Gujarat Stahl Rohren Limited | 8,678,082 | 886.90 | 18.53 | 5.00 | 0.10 | 102.20 | 2.13 |
| 282 | West Coast Paper Mills Ltd | 2,617,650 | 222.50 | 4.65 | 2.00 | 0.04 | 85.00 | 1.78 |
| 283 | West Coast Paper Mills Ltd | 3,000,000 | 135.00 | 2.82 | 2.00 | 0.04 | 45.00 | 0.94 |
| 284 | XL Telecom & Energy Limited | 110,000 | 14.85 | 0.31 | 10.00 | 0.21 | 135.00 | 2.82 |
| 285 | XL Telecom & Energy Limited | 1,100,000 | 148.50 | 3.10 | 10.00 | 0.21 | 135.00 | 2.82 |
| 286 | Xpro India Limited | 500,000 | 20.75 | 0.43 | 10.00 | 0.21 | 41.50 | 0.87 |

# Collective Investment Vehicles

## Introduction

A Collective Investment Vehicle (CIV) is any entity that allows investors to pool their money and invest the pooled funds, rather than buying securities directly as individuals. The most common types of collective investment vehicles are mutual funds, index funds, exchange traded funds, collective investment schemes and venture capital funds. (Chart 3-1) The developments in the year 2008-09 and April 09 - Dec 09 with respect to the above five different CIVs 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 objective come together to pool their money and then invest accordingly. SEBI defines mutual funds as 'A fund established in the form of a trust to raise money through the sale of units to the public or a section of the public under one or more schemes for investing in securities, including money market instruments or gold or gold related instruments or real estate assets. A Mutual Fund has a fund manager who is responsible for investing the pooled money into specific securities (usually stocks and bonds). When one invests in a MF, he/she buys shares (or portions) of the MF and becomes a shareholder of the fund. Mutual Funds (MFs) are considered a good route to invest and earn returns with reasonable safety. Some of the other major benefits of investing in them are that it provides various types of options of investing in various schemes, diversification, professional management, liquidity, transparency, tax benefits and affordability factor etc.

In India, the Unit Trust of India (UTI), created in 1964 was the first MF. It enjoyed complete monopoly of MF business upto 1986. The entry of non- UTI, public sector mutual funds was set up by public sector banks and Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC) in 1987. SBI Mutual Fund was the first non-UTI Mutual Fund established in June 1987. The MF business was progressively opened to competition post 1988. This move gathered momentum after the adoption of economic liberalization in 1991 and the creation of SEBI in 1992.

## Market Design of Mutual Funds

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

| | |
|---|---|
| **Registration of Mutual Funds** | In order to register with SEBI as a 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 have laid down a detailed procedure for launching of schemes, disclosures in the offer document, advertisements, listing and repurchase of close-ended schemes, offer period, transfer of units, investments.<br><br>In addition, **RBI** also supervises the operations of bank-owned MFs. While SEBI regulates all market related and investor related activities of the bank/FI-owned funds, any issues concerning the ownership of the AMCs by banks falls under the regulatory ambit of the RBI.<br><br>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.<br><br>Many close-ended equity schemes of the MFs are listed on one or more stock exchanges. Such schemes are, therefore, subject to the **regulations of the concerned stock exchange**(s) through the listing agreement between the fund and the stock exchange.<br><br>MFs, being Public Trusts are governed by **the Indian Trust Act, 1882**, are accountable to the office of the Public Trustee, which in turn reports to the Charity Commissioner, that enforces provisions of the Indian Trusts Act. |
| **Advertisements Code by MFs** | As per the MF regulations, advertisements should be truthful, fair and clear, and not contain any statement/promise/forecast, which is untrue or misleading. The sales literature should also contain information, which is included in the current advertisement. Assuming that the investors are not trained in legal or financial matters, it should be ensured that the advertisement is set forth in a clear, concise and understandable manner. Excessive use of technical/legal jargons or complex language, inclusion or exclusion of excessive details, which is likely to detract the investors, should be avoided. Also, standardized computations such as annual dividend on face value, annual yield on the purchase price and annual compounded rate of return should be used. |
| **Investment and Borrowing** | – A mutual fund scheme should not invest more than 15% of its NAV in debt instruments issued by a single issuer which are rated not below investment grade by a credit rating agency authorised to carry out such activity under the Act. Such investment limit may be extended to 20% of the NAV of the scheme with the prior approval of the Board of Trustees and the Board of asset management company p**rovided** that:<br>• such limit should not be applicable for investments in Government securities and money market instruments.<br>• No mutual fund is allowed to invest more that 30% of its net assets in money market instruments of an issuer, however this is not applicable for investments in G-secs, T-bills, Collateralised borrowing and lending obligations.<br>• Further, that investment within such limit can be made in mortgaged backed securitised debt which are rated not below investment grade by a credit rating agency registered with SEBI.<br>– A mutual fund scheme should not invest more than 10% of its NAV in unrated debt instruments issued by a single issuer and the total investment in such instruments should not exceed 25% of the NAV of the scheme. All such investments should be made with the prior approval of the Board of Trustees and the Board of asset management company.<br>– No mutual fund under all its schemes should own more than 10% of any company's paid up capital carrying voting rights.<br>– Transfers of investments from one scheme to another scheme in the same mutual fund should be allowed only if, |

- *such transfers are done at the prevailing market price for quoted instruments on spot basis. 'Spot basis' has the same meaning as specified by stock exchange for spot transactions.*
- *the securities so transferred should be in conformity with the investment objective of the scheme to which such transfer has been made.*

– A scheme may invest in another scheme under the same asset management company or any other mutual fund without charging any fees, provided that aggregate inter scheme investment made by all schemes under the same management or in schemes under the management of any other asset management company should not exceed 5% of the net asset value of the mutual fund. However, this is not applicable to any fund of funds scheme.

– Every mutual fund should buy and sell securities on the basis of deliveries and should in all cases of purchases, take delivery of relative securities and in all cases of sale, deliver the securities**.** 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 recognised stock exchange, subject to the framework specified by the Board. The sale of government security already contracted for purchase shall be permitted in accordance with the guidelines issued by the Reserve Bank of India in this regard.

– Every mutual fund should get the securities purchased or transferred in the name of the mutual fund on account of the concerned scheme, wherever investments are intended to be of long-term nature.

– Pending deployment of funds of a scheme in securities in terms of investment objectives of the scheme a mutual fund can invest the funds of the scheme in short term deposits of scheduled commercial banks.

– No mutual fund scheme should make any investment in-

- any unlisted security of an associate or group company of the sponsor; or
- any security issued by way of private placement by an associate or group company of the sponsor; or
- the listed securities of group companies of the sponsor which is in excess of 25% 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% of its NAV in the equity shares or equity related instruments of any company. The limit of 10% is not applicable for investments in case of index fund or sector or industry specific scheme.

– A mutual fund scheme should not invest more than 5% of its NAV in the unlisted equity shares or equity related instruments in case of open ended scheme and 10% of its NAV in case of close ended scheme.

– A fund of funds scheme will be subject to the following investment restrictions:

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

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

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 which are adequate in order to enable investors to make informed investment decision. Advertisement in respect of every scheme should be in conformity with the Advertisement Code. The offer document and advertisement materials should not be misleading or contain any statement or opinion which are incorrect or false.

**Funds by Structure/Tenor**

| | |
|---|---|
| **Open ended Scheme** | An open-ended fund means a scheme of mutual fund scheme which offers units for sale without specifying any duration for redemption. |
| **Close ended Scheme** | 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 are required to be listed on a stock exchange within such time period and subject to such conditions as specified by SEBI.<br><br>***Listing of close ended schemes*** : Other than an equity linked saving scheme, all close ended schemes are required to be listed on a recognised stock exchange within the time period and conditions specified by SEBI. The listing of close ended schemes launched prior to the commencement of SEBI (Mutual Funds) (Amendment) Regulations,2009 is not mandatory if the said scheme provides for periodic repurchase facility to all the unit holders with restriction, if any, on the extent of such repurchase; or if the said scheme provides for monthly income or caters to special classes of persons like senior citizens, women, children, widows or physically handicapped or any special class of persons providing for repurchase of units at regular intervals; or if the details of such repurchase facility are clearly disclosed in the offer document; or if the said scheme opens for repurchase within a period of six months from the closure of subscription or if the said scheme is a capital protection oriented scheme.<br><br>**Repurchase of close ended schemes**<br><br>Units of a close ended scheme, other than equity linked saving scheme launched on or after the commencement of the SEBI (Mutual Funds) (Amendment) Regulations,2009 shall not be repurchased before the end of maturity period of such scheme. The units of a close ended scheme may be open for sale or redemption at fixed predetermined intervals if the maximum and minimum amount of sale or redemption of the units and the periodicity of such sale or redemption have been disclosed in the offer document. The units of close ended scheme can be converted into open-ended scheme if the offer document of such scheme discloses the option and the period of such conversion; or the unitholders are provided with an option to redeem their units in full and the initial issue expenses of the scheme have been amortised fully in accordance with the tenth schedule of SEBI Mutual Fund Regulations, 1996. |
| **Assured return schemes** | Assures a specific return to the unit holders irrespective of performance of the scheme, which are fully guaranteed either by the sponsor or AMC. |
| **Interval Fund** | This kind of fund combines the features of open-ended and closed-ended schemes, making the fund open for sale or redemption during pre-determined intervals. |

| Funds by Investment objective/Asset class | |
|---|---|
| **Equity/Growth schemes** | Growth/Equity Oriented Schemes provide capital appreciation over medium to long-term by investing a major part of their corpus in equities. |
| ***Debt or income schemes*** | Income/Debt Oriented Schemes provide regular and steady income to investors by investing in fixed income securities such as bonds, corporate debentures, government securities and money market instruments. Hence, they are less risky compared to equity schemes. |
| ***Balanced Funds*** | Balanced Funds provide both growth and regular income as they invest both in equities and fixed income securities in the specified proportion as indicated in their offer documents. |
| ***Liquid Funds*** | Money Market or Liquid Funds provide easy liquidity and preserves capital, but generates moderate income. As they invest exclusively in safer short-term instruments such as, treasury bills, certificates of deposit, commercial paper, inter-bank call money and government securities. |
| ***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 shares only of a specific sector such as Pharmaceuticals, software, energy and Banking etc. |
| ***Funds of Funds*** | Funds of Funds is a scheme wherein the assets are invested in the existing schemes of mutual funds. |

## Index Funds

Index funds are those funds which track the performance of an index. This is usually carried out by either investing in the shares comprising the index or by buying a sample of shares making up the index or a derivative based on the likely performance of the index. The value of the fund is linked to the chosen index so that if the index rises so will the value of the fund. Conversely, if the index falls so will the value of the fund. In the Indian context, the index funds attempt to copy the performance of the two main indices in the market viz., Nifty 50 or Sensex. This is done by investing in all the stocks that comprise the index in proportions equal to the weightage given to those stocks in the index.

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

## Exchange Traded Funds

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

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

A Gold Exchange Traded Fund (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 which is listed and traded on a stock exchange. Every gold ETF unit is representative of a definite quantum of pure gold and the traded price of the gold unit moves in tandem with the price of the actual gold metal. The GETF aims at providing returns which closely correspond to the returns provided by Gold.

## Collective Investment Schemes

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

The Collective Investment Scheme is well established in many jurisdictions and now serves as an investment vehicle for a wide range of investment opportunities around the world. The International Organization of Securities Commission (IOSCO) has, in its Report on Investment Management of the Technical Committee, defined the Collective Investment Schemes (CIS), as "an open ended collective investment scheme that issues redeemable units and invests primarily in transferable securities or money market instruments".

### Guidelines under CIS Regulations

The SEBI (CIS) Regulations 1999, specifically state that, without obtaining a certificate of registration from SEBI, no entity can carry on or sponsor or launch a CIS. The other regulations are as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

As on June 30, 2009, there was one CIS entity registered with SEBI.

## Venture Capital Funds

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

### Regulations for VCFs

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

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

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

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

## Investment Condition & Restrictions

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

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

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

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

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

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

      - subscription to Initial Public Offer (IPO) of a VCU whose shares are proposed to be listed.
      - debt or debt instrument of a VCU in which the VCF has already made an investment by way of equity.
      - Preferential allotment of equity shares of a listed company subject to lock-in-period of one year.
      - The equity shares or equity linked instruments of a financially weak company or a sick industrial company whose shares are listed. For these regulations, a financially weak company or a sick industrial company means a company, which has at the end of the previous financial year accumulated losses, which has resulted in erosion of more than 5 0% but less than 100 % of its networth as at the beginning of the previous financial year.
      - Special Purpose Vehicles (SPVs) which are created by a venture capital fund for the purpose of facilitating or promoting investment in accordance with these Regulations.

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

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

## Prohibition on Listing:

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

# Policy Developments for Mutual Funds from April 2008 to December 2009

Over the past years the SEBI has taken several policy measures to improve the mutual fund industry in India for investor protection, market development and effective regulation. The recent policy developments (April 2008 to December 2009) pertaining to mutual funds are enumerated below.

### 1) Enhancement of overseas investments ceilings for Mutual Fund

As per SEBI circular dated April 8, 2008, SEBI in consultation with Government of India and RBI, enhanced the aggregate ceiling for overseas investments for mutual fund investment from US $ 5 billion to US $ 7 billion.

### 2) SEBI (Mutual Funds) Regulations, 1996 modified to provide framework for real estate mutual funds

Vide SEBI circular dated May 2, 2008, SEBI informed all the mutual funds registered with SEBI that the SEBI (Mutual Funds) Regulations, 1996 were modified to provide a framework for real estate mutual funds. The salient modifications are:

a) For considering eligibility to set up new mutual funds for launching only real estate mutual fund schemes, besides fulfilling all other eligibility criteria applicable for sponsoring a mutual fund, sponsors should be carrying on business in real estate for a period not less than five years.

b) An existing mutual fund may launch a real estate mutual fund scheme if it has an adequate number of key personnel and directors having adequate experience in real estate.

c) Every real estate mutual fund scheme shall be close-ended and its units shall be listed on a recognised stock exchange.

d) Every real estate mutual fund is required to invest at least thirty five per cent of the net assets of the scheme directly in real estate assets.

e) The AMC, its directors, the trustees and the real estate value should ensure that the valuations of assets held by a real estate mutual fund scheme are done in good faith in accordance with the norms specified.

It was also clarified that a real estate mutual fund scheme can invest in real estate assets in the cities mentioned in (i) list of million plus urban agglomerations/cities; or (ii) list of million plus cities which appear in census statistics of India (2001) at www.censusindia.gov.in.

### 3. Simplification of Offer Document and Key Information Memorandum

As per the SEBI circular dated May 23, 2008, all the mutual funds registered with SEBI were informed that the Offer Document (OD) and Key Information Memorandum (KIM) of Mutual Funds schemes were simplified to make them more reader friendly. The Offer Document was split into two parts i.e., Statement of Additional Information (SAI) and Scheme Information Document (SID) w.e.f. June 1, 2008.

(AMFI had set up a committee to examine the ways of simplification of OD and KIM to make it more reader friendly and accordingly recommended that the existing OD may be split into two parts i.e. Statement of Additional Information (SAI) and Scheme Information Document (SID). SAI shall incorporate all statutory information on mutual fund.)

### 4. Mutual Funds permitted to engage in short selling and securities lending and borrowing of government securities

Through SEBI circular dated June 6, 2008, it was announced that existing mutual fund schemes could engage in short selling of securities as well as lending and borrowing of securities after making additional disclosures including risk factors in the scheme information document in accordance with SEBI circular dated May 23, 2008.

In an endeavour to place mutual funds at par with other participants in the government securities market, therefore mutual fund schemes were permitted to sell government securities already contracted for purchase without waiting for actual delivery of government securities in accordance with the guidelines issued by RBI.

### 5. Parking of funds in short term deposits of Scheduled Commercial Banks

Vide SEBI circular dated June 23, 2008, it was clarified to mutual funds that earlier guidelines for parking of funds in short-term deposits of scheduled commercial banks, pending deployment, shall not apply to term deposits placed as margins for trading in cash and derivatives market. However, disclosures regarding all term deposits placed as margins are required to be made in half-yearly portfolio statements.

### 6. Valuation of debt securities by mutual fund

It was brought to notice of SEBI by AMFI and CRISIL that the current valuation methodology for mutual fund allowed the discretion of -50 basis points (bps) to +100 bps to account for the risks was inadequate as debt securities of similar maturity and credit rating are being traded over wide range of yields. With a view to ensure that the value of debt securities reflects the current market scenario in calculation of net asset value, it was decided to increase the discretion permitted.

Thus, through SEBI circular dated October 18, 2008, SEBI circulars dated September 18, 2000 and February 20, 2002 pertaining to valuation norms for Mutual funds were modified. The discretion of -50 basis points (bps) to +100 bps given to fund managers to value debt securities was found inadequate in the market scenario in October, 2008. With a view to ensure that the value of debt securities reflects the true fundamentals the discretion was modified as under:

| Rated Instruments | Initial (Before October 2008) | | Changed (After October 18, 2008) | |
|---|---|---|---|---|
| | + | - | + | - |
| Duration of upto 2 years | 100 bps | 50 bps | 500 bps | 150 bps |
| Duration over 2 year | 75 bps | 25 bps | 400 bps | 100 bps |
| **Unrated Instruments** | **Initial** | | **Changed** | |
| Duration upto 2 years | Discretionary discount of upto +50 bps over and above mandatory discount of +50 bps | | Discretionary discount of upto +450 bps over and above mandatory discount of +50 bps | |
| Unrated instruments with duration over 2 years | Discretionary discount of upto +50 bps over and above mandatory discount of +25 bps | | Discretionary discount of upto +375 bps over and above mandatory discount of +25 bps | |

However, with a view to ensure that the value of debt securities reflects the current market scenario in calculation of net asset value, it was further decided that discretionary mark up and mark down shall be brought to the level as detailed in SEBI circulars dated September 18, 2000 and February 20, 2002. Accordingly, the discretionary mark up and mark down in case of rated debt securities and unrated securities were restored back as it was prior to October 18, 2008. This was conveyed to all the mutual funds vide SEBI circular dated June 12, 2009.

Further, it was also decided that:

- For valuation of securities purchased after June 12, 2009, the discretionary mark up or down limit, as detailed above, should be applied.
- For cases where on June 12,2009, the increased discretionary mark up or down limit was being used, was supposed to be brought back to the proposed levels as detailed above within a period of two months.
- Chief Executive Officer (whatever his designation may be) of the Asset Management Company shall give prior approval to the use of discretionary mark up or down limit.

### 7. Abridged scheme-wise annual report format and periodic disclosures to the unitholders and reduction in time period for dispatch to the unitholders

It was observed that there was a lack of uniformity in the contents of abridged schemewise annual report prepared by the Mutual Funds. In view of the same, in consultation with AMFI, a new format of abridged schemewise annual report was prescribed. Vide SEBI circular dated July 24, 2008 it was also decided that the abridged scheme-wise annual report be mailed to the investors' e-mail addresses, if so mandated, and also displayed on the website of the mutual fund. A separate category of "Securitized Debt Instruments" was introduced in the Half- Yearly Portfolio Disclosure format under debt instruments.

Further, vide SEBI circular dated October 20, 2008 the time period for mailing of schemewise Annual Report or an abridged summary thereof to unitholders and Annual report to the Board, was reduced to "four months" from "six months".

### 8. Applicability of Net Asset Value (NAV) for income/ debt oriented mutual fund scheme(s)/plan(s)

To harmonize the NAV applicability with the realisation of money and to move away from the NAV based on the application date, it was prescribed that in respect of purchase of units in Income/ Debt oriented schemes (other than liquid fund schemes and plans) with amount equal to or more than Rs. 1 crore, irrespective of the time of receipt of application, the closing NAV of the day on which the funds are available for utilisation shall be applicable. This was announced through the SEBI circular dated October 24, 2008.

### 9. Review of provisions relating to close ended schemes

With a view to further strengthen the framework for close-ended schemes, launched on or after December 12, 2008 (except equity linked savings schemes), listing of units along with daily computation of NAV and its publication was made mandatory (vide SEBI circular dated December 11, 2008) . It was also mandated that a close-ended debt scheme shall invest only in such securities which mature on or before the date of the maturity of the scheme.

### 10. Portfolio of "Liquid Schemes" and nomenclature of "Liquid Plus" schemes

The SEBI circular dated October 11, 2006 on "Uniform cut-off for applicability of NAV of mutual fund schemes/plans", stated the characteristics of liquid scheme and plan portfolio in its (the circular cited above) Schedule I.

The characteristics of liquid schemes were discussed in the Advisory Committee of Mutual Funds. It was felt that there was a need to reduce the tenure of the securities held in the portfolio of liquid schemes from the current requirement of one year.

Accordingly, SEBI vide its circular dated January 19, 2009 modified the circular dated October 11, 2006 as under:

i. The definition of 'liquid fund schemes and plans' as mentioned in clause 2(1) (e) of aforesaid circular, shall be read as under: 'liquid fund schemes and plans' and shall mean the schemes and plans of a mutual fund as specified in the guidelines issued by SEBI in this regard'

ii. Schedule I i.e. (SEBI circular dated October 11, 2006 on "Uniform cut-off for applicability of NAV of mutual fund schemes/plans ) was withdrawn.

    In order to reduce the tenure of the securities held in the portfolio of liquid schemes from the requirement of one year, it was stipulated that:

    a) With effect from February 01, 2009, liquid fund schemes and plans shall make investment in / purchase debt and money market securities with maturity of upto 182 days only.

    b) With effect from May 01, 2009, liquid fund schemes and plans shall make investment in/purchase debt and money market securities with maturity of upto 91 days only.

This implied that in case of securities where the principal is to be repaid in a single payout the maturity of the securities shall mean residual maturity. In case the principal is to be repaid in more than one payout then the maturity of the securities shall be calculated on the basis of weighted average maturity of security. Further, in case of securities with put and call options (daily or otherwise) the residual maturity of the securities shall not be greater than 182 days w.e.f February 01, 2009 and 91 days w.e.f May 01, 2009.

In case the maturity of the security falls on a non-business day then settlement of securities will take place on the next business day. It was also stated that the above requirements shall be disclosed in the offer document and should form part of the investment allocation pattern. Any deviation from these requirements would be viewed as violation of investment restrictions. Inter-scheme transfers of securities having maturity upto 365 days and held in other schemes as on February 01, 2009 shall be permitted till October 31, 2009. With effect from November 1, 2009 the requirements stated regarding 'make investment in /purchase debt and money market securities with maturity of upto 91 days only' would apply to such inter-se scheme transfers also.

The Advisory Committee of Mutual Funds also recommended that the nomenclature of "Liquid Plus Scheme" should be discontinued since it gives a wrong impression of added liquidity. It was decided to accept the recommendation of the Advisory Committee and accordingly, mutual funds were advised to carry out the change in the nomenclature of "Liquid Plus Scheme" and confirm compliance to SEBI within 30 days from January 19, 2009.

### 11. Indicative Portfolios and Yields in mutual fund schemes

Advisory Committee of Mutual Funds discussed the practice of mutual funds offering indicative portfolios and indicative yields in their debt /fixed income products. There was a consensus that this practice should be prohibited as the indicative portfolio and indicative yield may be misleading to the investors. It was therefore, decided that the mutual funds should not offer any indicative portfolio and indicative yield. No communication regarding the same in any manner whatsoever, should be issued by any mutual fund or distributors of its products. The compliance of the same shall be monitored by the AMC and Trustees and reported in their respective reports to SEBI. This was conveyed to all the mutual funds vide SEBI circular dated January 19, 2009.

### 12. Portfolio format for debt oriented close-ended and interval schemes/plans

In order to enhance the transparency of portfolio of debt oriented close-ended and interval schemes/plans, it was decided that AMCs should disclose the portfolio of such schemes in the enclosed format on a monthly basis on their respective websites. The said disclosure of the portfolio as on the last day of the month should be made on or before 3rd working day of succeeding month. For example, portfolio as of March 31, 2009 shall be disclosed by April 04, 2009 - April 3, 2009 being a non working day. This was brought to the notice of all the mutual funds vide SEBI circular dated March 19, 2009.

### 13. Guidelines for investment by mutual funds in Indian Depository Receipts (IDRs)

In terms of regulation 43(1) of SEBI (Mutual Funds) Regulations 1996 mutual funds are permitted to invest in securities. Vide circular dated June 9, 2009- it was clarified that mutual funds can invest in Indian Depository Receipts [Indian Depository Receipts as defined in Companies (Issue of Indian Depository Receipts) Rules, 2004] subject to compliance with SEBI (Mutual Funds) Regulations 1996 and guidelines issued thereunder, specifically investment restrictions as specified in the Seventh Schedule of the Regulations.

### 14. Guidelines for Investment by Mutual Funds in Money Market Instruments

Vide SEBI circular dated June 15, 2009 it was clarified that in case of the existing schemes where the investments in money market instruments of an issuer are not in compliance with the said notification, AMC should ensure compliance within a period of 3 months from the date of notification i.e. June 15, 2009.

### 15. Mutual Funds- empowering investors through transparency in payment of commission and load structure

SEBI has been taking various steps to empower the investors in mutual funds by way of more transparency in the loads borne by the investor so that the investor can take informed investment decisions. Towards this end, SEBI had earlier abolished initial issue expenses and mutual fund schemes were allowed to recover expenses connected with sales and distribution through entry load only. Further, investors making direct applications to the mutual funds were exempted from entry load.

In terms of existing arrangement, though the investor pays for the services rendered by the mutual fund distributors, distributors are remunerated by Asset Management Companies (AMCs) from loads deducted from the invested amounts or the redemption proceeds. SEBI (Mutual Funds) Regulations, 1996 also permit AMCs to charge the scheme (under the annual recurring expense) for marketing and selling expenses including distributor's commission.

Further, all loads including Contingent Deferred Sales Charge (CDSC) for the scheme are maintained in a separate account and this amount is used by the AMCs to pay commissions to the distributors and to take care of other marketing and selling expenses. It has been left to the AMCs to credit any surplus in this account to the scheme, whenever felt appropriate. In order to incentivise long term investors it is considered necessary that exit loads/CDSCs which are beyond reasonable levels are credited to the scheme immediately.

In order to empower the investors in deciding the commission paid to distributors in accordance with the level of service received, to bring about more transparency in payment of commissions and to incentivise long term investment, it has been decided that:

a) There would be no entry load for all mutual fund schemes.

b) The scheme application forms should carry a suitable disclosure to the effect that the upfront commission to distributors will be paid by the investor directly to the distributor, based on his assessment of various factors including the service rendered by the distributor.

c) Of the exit load or CDSC charged to the investor, a maximum of 1% of the redemption proceeds shall be maintained in a separate account which can be used by the AMC to pay commissions to the distributor and to take care of other marketing and selling expenses. Any balance shall be credited to the scheme immediately.

d) The distributors should disclose all the commissions (in the form of trail commission or any other mode) payable to them for the different competing schemes of various mutual funds from amongst which the scheme is being recommended to the investor.

Vide circular dated June 30, 2009 it was brought to the notice of all the mutual funds that this would be applicable for following cases from August 1, 2009:

- Investments in mutual fund schemes (including additional purchases and switch-in to a scheme from other schemes),
- redemptions from mutual fund schemes (including switch-out from other schemes);
- New mutual fund schemes launched on and after August 1, 2009;
- Systematic Investment Plans (SIP) registered on or after August 1, 2009.

### 16. Exit load - Parity among all classes of unit holders

Vide SEBI circular dated May 23, 2008 SEBI has simplified the formats for Offer Document and Key Information Memorandum of Mutual Funds Scheme. The simplified Scheme Information Document format provides that "Wherever quantitative discounts are involved the following shall be disclosed – The Mutual Fund may charge the load within the stipulated limit of 7% and without any discrimination to any specific group of unit holders. However, any change at a later stage shall not affect the existing unit holders adversely."

It was observed that the mutual funds were making distinction between the unit holders by charging differential exit loads based on the amount of subscription. In order to have parity among all classes of unit holders, vide SEBI Circular dated dated August 7, 2009 it was decided that no distinction among unit holders should be made based on the amount of subscription while charging exit loads.

Then vide SEBI circular dated August 17, 2009 it was conveyed to all the mutual funds that they are expected to ensure compliance with the aforesaid circular on or before August 24, 2009. It was also informed that while complying with above, it should also be ensured that the principle laid down in the SEBI circular dated May 23, 2008 (clause 16 of the standard observations) that "any imposition or enhancement in the load shall be applicable on prospective investments only" should be followed and the parity among all classes of unit holders in terms of charging exit load should be made applicable at the portfolio level.

### 17. New code of conduct for mutual funds

Vide SEBI circular dated August 27, 2009 the new code of conduct for mutual funds was made applicable from August 2009 onwards.

### 18. Systems audit of mutual funds

Considering the importance of systems audit in the technology driven asset management activity, it has been decided by SEBI vide circular dated September 16, 2009, that mutual funds would have a systems audit conducted by an independent CISA/CISM* qualified or equivalent auditor. The systems audit should be comprehensive encompassing audit of systems and processes *inter alia* related to examination of integration of front office system with the back office system, fund accounting system for calculation of net asset values, financial accounting and reporting system for the AMC, Unit-holder administration and servicing systems for customer service, funds flow process, system processes for meeting regulatory requirements, prudential investment limits and access rights to systems interface.

Accordingly, mutual funds were advised to get the above systems audit conducted once in two years and to place the Systems Audit Report and compliance status before the Trustees of the mutual fund. The systems audit report/findings

* CISA: Certified Information System Audior
CISM: Cerified Information Security Manager

along with trustee comments should be communicated to SEBI. For the financial years April 2008 – March 2010, the systems audit deadline was kept as September 30, 2010.

### 19. Statement of Additional Information (SAI) & Scheme Information Document (SID) to be made available on SEBI website

Vide SEBI Circular dated September 29, 2009 it was informed to all the mutual funds and the Asset Management Companies (AMCs) that henceforth AMCs would be required to submit a soft copy of SAI within 7 days from September 29, 2009 and a soft copy of SIDs alongwith printed/final copy two working days prior to the launch of the scheme. Soft copies of these documents are required to be submitted to SEBI in PDF format.

Mutual Funds would be required to update the SID and SAI in terms of clause 5 and clause 6 of SEBI circular dated May 23, 2008. A soft copy of updated SAI and SID is required to be filed with SEBI in PDF format within 7 days alongwith a printed copy of the same.

Further, in continuation with the current practice of uploading the SAI on AMFI website, AMCs would also be required to upload the soft copy of SID on AMFI website two working days prior to the launch of the scheme. AMC would also have to submit an undertaking to SEBI while filing the soft copy of the aforementioned documents certifying that information contained in the soft copy of SID and SAI (as applicable) to be uploaded on SEBI website is current and relevant and matches exactly with the contents of the hard copy. Further, AMCs would be fully responsible to the content of the soft copy of SID and SAI.

### 20. Facilitating transactions in mutual fund schemes through the stock exchange infrastructure

The need for enhancing the reach of mutual fund schemes to more towns and cities has been aired through various forums/ channels. To address this issue, various models have been debated and discussed. The infrastructure that already exists for the secondary market transactions through the stock exchanges with its reach to over 1500 towns and cities, through over 200,000 stock exchange terminals can be used for facilitating transactions in mutual fund schemes. The stock exchange mechanism would also extend the present convenience available to secondary market investors to mutual fund investors.

Vide SEBI circular dated November 13, 2009 it was stated that the units of mutual fund schemes may be permitted to be transacted through registered stock brokers of recognized stock exchanges and such stock brokers will be eligible to be considered as official points of acceptance as per SEBI circular dated October 11, 2006.

The respective stock exchange would provide detailed operating guidelines to facilitate the same. In this regard, SEBI advised the following:

**i) Empanelment and monitoring of Code of Conduct for brokers acting as mutual fund intermediaries-**

The stock brokers intending to extend the transaction in mutual funds through stock exchange mechanism shall be required to comply with the requirements specified in SEBI circular dated September 25, 2001 regarding passing the AMFI certification examination. All such stock brokers would then be considered as empanelled distributors with mutual fund/AMC.

These stock brokers would be required to comply with the requirements in SEBI circulars dated June 26, 2002, November 28, 2002 and August 27, 2009, applicable to intermediaries engaged in selling and marketing of mutual fund units.

It was clarified that, stock exchanges would monitor the compliance of the code of conduct specified in the SEBI circular dated November 28, 2002 regarding empanelment of intermediaries by mutual funds.

**ii) Time stamping**

Time stamping as evidenced by confirmation slip given by stock exchange mechanism to be considered sufficient compliance with clause 5, 6 and 8 of SEBI Circular dated October 11, 2006.

**iii) Statement of Account**

Where investor desires to hold units in dematerialised form, demat statement given by depository participant would be deemed to be in adequate compliance with requirements prescribed under regulation 36 of SEBI (Mutual Fund) Regulations, 1996, and SEBI circulars dated November 24, 2000 and November 20, 2006 regarding despatch of statements of account.

**iv) Investor grievance mechanism**

Stock exchanges would have to provide for investor grievance handling mechanism to the extent they relate to disputes between brokers and their client.

**v) Dematerialization of existing units held by investors**

In case investors desire to convert their existing physical units (represented by statement of account) into dematerialized form, mutual funds / AMCs shall take such steps in coordination with Registrar and Transfer Agents, Depositories and Depository participants (DPs) to facilitate the same.

**vi) Know your client (KYC).**

Where investor desires to hold units in dematerialised form, the KYC should be performed by DP in terms of SEBI circular dated August 24, 2004 and this should be considered in compliance with applicable requirements specified in this regard in terms of SEBI circular dated December 19, 2008 by mutual funds /AMCs.

Stock exchanges and mutual funds/AMCs, based on the experience gained may further improve the mechanism in the interest of investors.

Consequent to this market development, NSE introduced the Mutual Fund Service System (MFSS) on November 30, 2009 and BSE introduced its Star MF on December 5, 2009.

## 21. Transactions through some mutual fund distributors and compliance with the SEBI circular on AML

In terms of the SEBI master circular dated December 19, 2008 issued to all registered intermediaries on "*Anti Money Laundering (AML) Standards/Combating Financing of Terrorism (CFT) / Obligations of Securities Market Intermediaries under Prevention of Money Laundering Act, 2002 and Rules framed there-under*", it was prescribed that it would be the responsibility of the intermediaries to ensure customer due diligence by obtaining sufficient information to identify persons, have a policy in place for acceptance of clients and client identification procedure, monitoring of transactions etc.

It was brought to the attention of SEBI, that all documentation related to the investor including Know your Client, Power of Attorney (PoA) in respect of transactions / requests made through some mutual fund distributors is not available with the AMC/ RTA of the AMC and that the same is stated to be maintained by the respective distributors.

Thus, it was reiterated that the requirements as mentioned in the master circular dated December 19, 2008 issued by SEBI was applicable to the Mutual Funds/ AMCs and hence maintaining all the documentation pertaining to the unitholders/investor is the responsibility of the AMC.

Therefore vide SEBI Circular dated December 11, 2009, all the mutual funds and asset management companies were advised to confirm whether all the investor related documents are maintained/ available with them. If not, and to the extent of and relating to such investor accounts/folios where investor related documentation is incomplete/inadequate/ not available, then the trustees of the mutual funds were advised to ensure the following:

a. No further payment of any commissions, fees and / or payments in any other mode should be made to such distributors till full compliance/ completion of the steps enumerated.

b. Take immediate steps to obtain all investor/ unit holders documents in terms of the AML/ CFT, including KYC documents / PoA as applicable

c. Take immediate steps to obtain all supporting documents in respect of the past transactions.

d. On a one time basis, send statement of holdings and all transactions since inception of that folio in duplicate to the investor and seek confirmation from the unit holders on the duplicate copy.

e. Set up a separate customer services mechanism to handle/ address queries and grievance of the above mentioned unitholders.

f. Pending completion of documentation, exercise great care and be satisfied of investor bonafides before authorizing any transaction, including redemption, on such accounts / folios.

g. The trustees shall forthwith confirm to SEBI that the steps have been taken to address the above and also send a status to SEBI as and when process is completed to satisfaction.

## 22. AMFI guidelines for change of mutual fund distributor

It had come to the notice of SEBI that unwarranted hardship was being caused to investors in mutual fund schemes who wish to switch from an existing mutual fund distributor to either another mutual fund distributor or opt to deal direct.

Some Asset Management Companies (AMCs) insisted on the investor procuring a 'No Objection Certificate' (NoC) from the existing distributor for this switch over, despite the guideline from Association of Mutual Funds in India (AMFI). Vide circular dated September 5, 2007, AMFI had mandated, inter-alia, that on receipt of letter from the investor advising AMCs about his desire to change his distributor, AMCs will act on that instruction. It appears that this mandate is not being followed by the mutual fund industry.

These inconsistent practices prevailing in the industry caused hardship to investors and with a view to stall this, SEBI advised all the mutual funds and asset management companies to ensure compliance with the instruction of the investor informing his desire to change his distributor and / or go direct, without compelling the investor to obtain an NoC from the existing distributor.

## 23. Changes and new additions made to SEBI Mutual Funds Regulations 1996

Vide SEBI circular dated December 15, 2009 following modifications were made in SEBI Mutual funds Regulations 1996.

- Sub-clause (a) of Regulation 53 of SEBI (Mutual Funds) Regulations, 1996 requires asset management companies to dispatch dividend warrants within 30 days of the declaration of the dividend. It was clarified that, in the event of failure of dispatch of dividend within the stipulated 30 day period, the AMC(s) shall be liable to pay interest @ 15 per cent per annum to the unit holders. This is a new clause which was inserted.

  Below the format for statement of interest paid to the investors for delays in despatch of redemption / repurchase warrants, the following table on statement of interest paid to the investors for delays in dispatch of dividend would be inserted. This statement has to be sent to SEBI alongwith the Compliance Test Report(s)

| Name of the Investor | Date of Dividend Declaration | Date of Despatch of Dividend | Period of Delay | Amount of Interest Paid (Rs.) |
|---|---|---|---|---|
| | | | | |

- Under the guidelines for participation by Mutual Funds in Stock Lending Scheme, the clause pertaining to valuation of collateral securities was deleted and mutual funds were required to comply with guidelines issued in this regard by SEBI/ Stock Exchange from time to time

- Under 'Maintenance of Records', the following was inserted at the end of the paragraph: *"......within 21 days from the date of closure of the exit option"*

- For launching additional plans in existing open ended schemes, mutual funds shall comply with the following provisions:
  a. *Additional plans sought to be launched under existing open ended schemes which differ substantially from that scheme in terms of portfolio or other characteristics shall be launched as separate schemes in accordance with the regulatory provisions.*
  b. *However, plan(s) which are consistent with the characteristics of the scheme may be launched as additional plans as part of existing schemes by issuing an addendum. Such proposal should be approved by the Board(s) of AMC and Trustees. Further:*
     i. *The addendum shall contain information pertaining to salient features like applicable entry/exit loads, expenses or such other details which in the opinion of the AMC/ Trustees is material. The addendum shall be filed with SEBI 21 days in advance of opening of plan(s).*
     ii. *AMC(s) shall publish an advertisement or issue a press release at the time of launch of such additional plan(s).*
- The tenure of *'10 calendar days'* as stipulated in Clause 1.5 under prior approval of personal investment transactions was replaced with *'7 calendar days'*.
- The **tombstone *of advertisement*** *can only give basic information about a:*
  *(i)* *Mutual fund registered with SEBI whose Statement of Additional Information is filed with SEBI and has been uploaded on its website; or*
  *(ii)* *scheme which is already launched and is in existence and whose Scheme information document is available.*
- Issue of advertisements or distribution of sales literature must be accompanied or preceded by issue of SID and SAI, unless stated otherwise
- Pertaining to use of rankings in advertisements and sales literature, the concept of "current standardized yield" was replaced with "compounded annualized yield".
- Mutual Funds while advertising simple annualized returns of such schemes based on a period of 30 days can also advertise simple annualized returns based on 15 day or 7 day period.

# Market Outcome

## Mutual Funds

### No. of Mutual Funds

At the end of March 2009 the mutual funds registered with the SEBI stood at 44 and at the end of June 2009 the number was 43. As against 612 schemes in the year 2007-08, 551 new schemes were launched in 2008-09, of which 55 were open-ended, 451 were close-ended schemes and 45 were interval fund schemes. Aggregate sales of all the 551 schemes amounted to Rs.1,031,770 million (US $ 20,251 million). The redemptions during the year were at Rs. 54,546,500 million (US $ 282,970 million).

### Resource Mobilisation

The MF vehicle is quite popular with investors who are wary of directly investing in the securities market. The popularity of the MFs as an investment avenue is clearly visible from the data presented in (Table 3-1). The resource mobilization through the mutual fund route can be seen in Chart 3-2. Maximum resource mobilization was witnessed in the year 2007-08 saw huge investments in MFs. The following paragraphs show the resource mobilization by mutual funds in various ways such as institution wise, scheme wise and category wise.

**Table 3-1: Resource Mobilisation by Mutual Funds**

(Rs. mn.) (US $ mn.)

| Year | Public Sector MFs | | | Private Sector MFs | Grand Total | |
|---|---|---|---|---|---|---|
| | Bank sponsored | FI sponsored | UTI | | | |
| 1990-91 | 23,520 | 6,040 | 45,530 | - | 75,090 | 4,186 |
| 1991-92 | 21,400 | 4,270 | 86,850 | - | 112,520 | 4,598 |
| 1992-93 | 12,040 | 7,600 | 110,570 | - | 130,210 | 4,496 |
| 1993-94 | 1,480 | 2,390 | 92,970 | 15,600 | 112,440 | 3,584 |
| 1994-95 | 7,650 | 5,760 | 86,110 | 13,220 | 112,740 | 3,587 |
| 1995-96 | 1,130 | 2,350 | -63,140 | 1,330 | -58,330 | -1,698 |
| 1996-97 | 60 | 1,370 | -30,430 | 8,640 | -20,360 | -567 |
| 1997-98 | 2,370 | 2,030 | 28,750 | 7,490 | 40,640 | 1,028 |
| 1998-99 | 2,310 | 6,910 | 1700 | 25,190 | 36,110 | 851 |
| 1999-00 | 1,560 | 3,570 | 45,480 | 148,920 | 199,530 | 4,574 |
| 2000-01 | -------------- 15,200---------- | | 3,220 | 92,920 | 111,350 | 2,387 |
| 2001-02 | -------------- 14,740---------- | | -72,840 | 129,470 | 71,370 | 1,463 |
| 2002-03 | --------------18,950---------- | | -94,340 | 121,220 | 45,830 | 965 |
| 2003-04 * | --------------37,610---------- | | 10,500* | 428,730 | 476,840 | 10,990 |
| 2004-05 | --------------16,670----------- | | 25,970 | 425,450 | 468,090 | 10,699 |
| 2005-06 | --------------------98,020--------------------- | | | 429,770 | 527,790 | 11,815 |
| 2006-07 | --------------------149,470--------------------- | | | 790,380 | 939,850 | 21,561 |
| 2007-08P | --------------------204,980--------------------- | | | 1,333,040 | 1,538,020 | 38,479 |
| 2008-09 | --------------------57,210--------------------- | | | -340,180 | -282,970 | -5,554 |

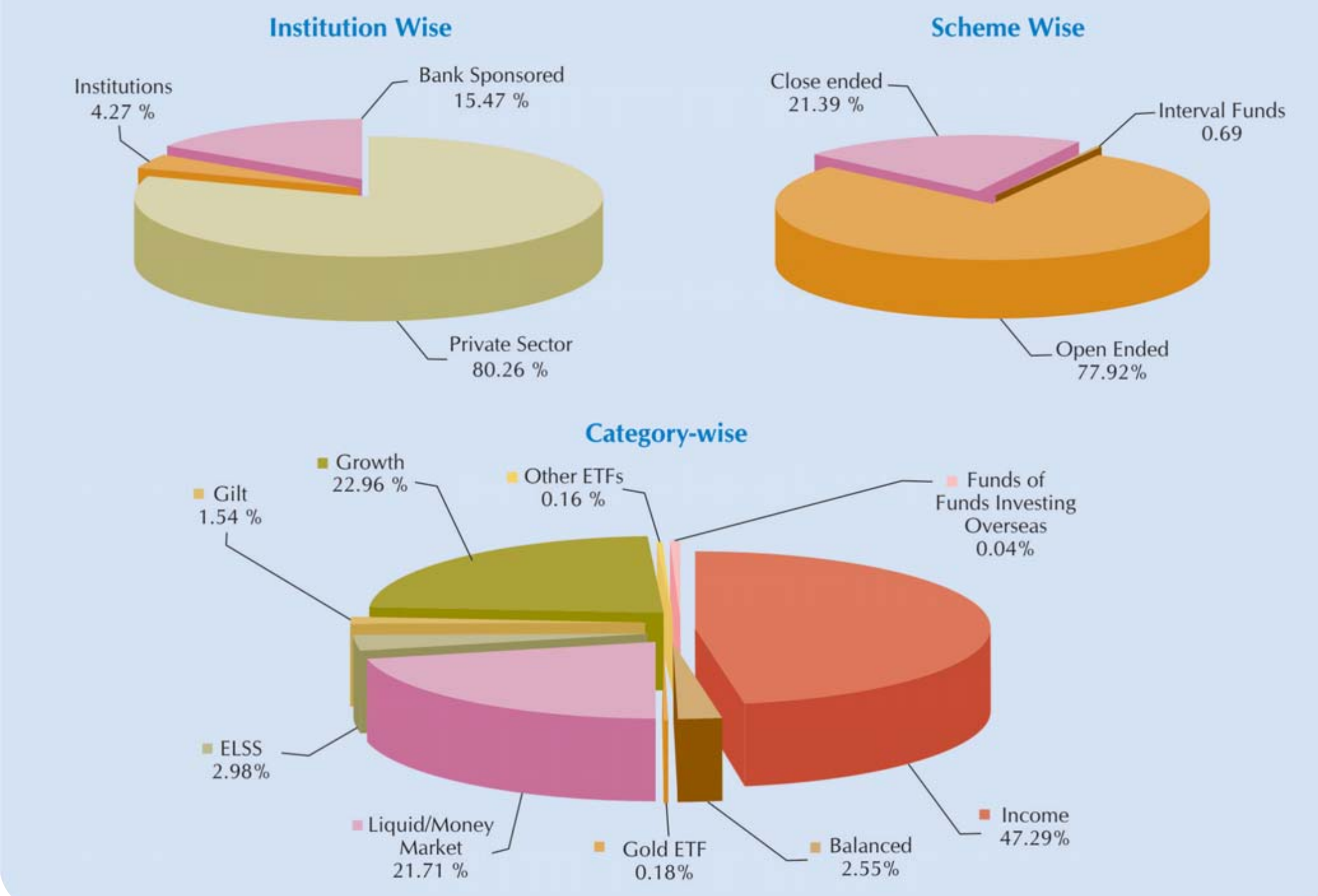
P: Provisional

*Source: RBI.*

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

**Chart 3-2: Resource Mobilisation by Mutual Funds**

Chart 3-3: Assets under Management at the end of March 2009




### *Institution wise Resource Mobilisation*

The resource mobilization through the route of mutual funds is done broadly by three categories viz. Banks, Private Sector and Institutions. The structure of the institution wise resource mobilization is depicted in Table 3-2 which gives their details of sales, purchases (redemptions) and assets under management.

The private sector MFs accounted for 79.05 % of resource mobilization (sales) by MF industry during 2008-09. These private sector MFs witnessed a net outflow of Rs. 345,720 million (US $ 6,785 million) in the same period as compared to Rs. 1,333,020 million (US $ 33,351 million) in 2007-8.

During the year 2008-09, bank sponsored MFs mobilized resources worth Rs. 7,737,280 million (US $ 151,860 million) which was 58.03% higher than the resource mobilization in year 2007-08. It accounted for 14.26 % of the total resource mobilization. In net terms, the bank sponsored MFs witnessed an inflow of Rs.3,210 million (US $ 63 million).

### *Resource Mobilisation according to Maturity Period/ Tenor*

The share of total sales in the open-ended schemes of mutual funds have always been more than the close ended schemes. The same trend was seen in the year 2008-09 when the share of sales by open ended schemes was 97.96 % while sales of close ended schemes accounted for a share of 2.05%. The close ended schemes saw a decrease in sales by 12.82% in 2008-09. (Table 3-3A).

The open ended and close ended schemes together registered a net outflow of Rs.282,970 million (US $ 5,554 million) during 2008-09 as compared with an inflow of Rs.1,538,010 million (US $ 38,479 million) in 2007-08. The details of the sales and redemptions of the mutual funds based on the tenor for 2007-08, 2008-09 and first quarter of the fiscal

Table 3-2 A: Accretion of Funds with Mutual Funds

| Category | | | 2007-08 | | | | 2008-09 | | | | Assets Under Management | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sale (Rs. mn) | Purchase (Rs. mn) | Net (Rs. mn) | Net (US $. mn) | Sale (Rs. mn) | Purchase (Rs. mn) | Net (Rs. mn) | Net (US $. mn) | March-08 (Rs. mn) | March-09 (Rs.mn) | March-09 (US $ mn) |
| **A** | **Bank Sponsored** | | **4,895,940** | **4,712,740** | **183,200** | **4,583** | **7,737,280** | **7,734,070** | 3,210 | **63** | **771,470** | **645,590** | **12,671** |
| | i. | Joint Ventures - Predominantly Indian | 1,433,240 | 1,356,450 | 76,790 | 1,921 | 3,474,050 | 3,439,800 | 34,250 | 672 | 286,690 | 261,460 | 5,132 |
| | ii | Joint Ventures-Foreign | -- | -- | -- | -- | 31,920 | 26,370 | 5,550 | 109 | -- | 6,120 | 120 |
| | iii. | Others | 3,462,700 | 3,356,290 | 106,410 | 2,662 | 4,231,310 | 4,267,900 | -36,590 | -718 | 484,780 | 378,010 | 7,419 |
| **B** | **Institutions** | | **1,940,300** | **1,918,510** | **21,790** | **545** | **3,630,660** | **3,571,120** | **59,540** | **1,169** | **123,840** | **178,250** | **3,499** |
| **C** | **Private Sector (i+ii+iii+iv)** | | **37,807,520** | **36,474,500** | **1,333,020** | **33,351** | **42,895,590** | **43,241,310** | **-345,720** | **-6,785** | **4,156,210** | **3,349,160** | **65,734** |
| | i. | Indian | 13,691,800 | 13,110,060 | 581,740 | 14,554 | 17,825,520 | 18,065,500 | -239,980 | -4,710 | 1,527,950 | 1,301,480 | 25,544 |
| | ii. | Joint Ventures-Predominately Indian | 13,927,290 | 13,411,200 | 516,090 | 12,912 | 18,758,720 | 18,659,480 | 99,240 | 1,948 | 1,612,730 | 1,532,620 | 30,081 |
| | iii. | Joint Ventures - Pre-dominately Foreign | 8,365,380 | 8,193,870 | 171,510 | 4,291 | 3,737,720 | 3,879,590 | -141,870 | -2,784 | 712,590 | 202,160 | 3,968 |
| | iv | Foreign | 1,823,050 | 1,759,370 | 63,680 | 1,593 | 2,573,630 | 2,636,740 | -63,110 | -1,239 | 302940 | 312,900 | 6,141 |
| **Grand Total (A+B+C)** | | | **44,643,760** | **43,105,750** | **1,538,010** | **38,479** | **54,263,530** | **54,546,500** | **-282,970** | **- 5,554** | **5,051,520** | **4,173,000** | **81,904** |

Table 3-2 B: Accretion of Funds with Mutual Funds

| Category | | | April 09- June 09 | | | | Assets Under Management at the end | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sale (Rs. mn) | Purchase (Rs. mn) | Net (Rs. mn) | Net (US $. mn) | June -09 (Rs.mn) | June -09 (US $ mn) | June -09 (US $ mn) |
| **A** | **Bank Sponsored** | | **3,216,750** | **3,096,980** | **119,770** | **2,351** | **891,870** | **17,505** | 18,631.08 |
| | i. | Joint Ventures - Predominantly Indian | 1,103,610 | 1,082,830 | 20,780 | 408 | 341,470 | 6,702 | 7,133.28 |
| | ii. | Joint Ventures-Predominantly Foreign | 179,760 | 171,040 | 8,720 | 171 | 15,420 | 303 | 322.12 |
| | ii. | Others | 1,933,380 | 1,843,110 | 90,270 | 1,772 | 534,980 | 10,500 | 11,175.68 |
| **B** | **Institutions** | | **1,819,880** | **1,741,460** | **78,420** | **1,539** | **270,890** | **5,317** | 5,658.87 |
| **C** | **Private Sector (i+ii+iii+iv)** | | **15,917,440** | **15,111,600** | **805,840** | **15,816** | **4,664,030** | **91,541** | 97,431.17 |
| | i. | Indian | 7,429,350 | 7,076,010 | 353,340 | 6,935 | 1,873,060 | 36,763 | 39,128.06 |
| | ii. | Joint Ventures- Predominately Indian | 7,201,770 | 6,811,660 | 390,110 | 7,657 | 2,114,670 | 41,505 | 44,175.27 |
| | iii. | Joint Ventures - Predominately Foreign | 709,120 | 700,340 | 8,780 | 172 | 242,350 | 4,757 | 5,062.67 |
| | iv | Foreign | 577,200 | 523,590 | 53,610 | 1,052 | 433,950 | 8,517 | 9,065.18 |
| **Grand Total (A+B+C)** | | | **20,954,070** | **19,950,040** | **1,004,030** | **19,706** | **5,826,790** | **114,363** | **121,721.12** |

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

| Scheme | 2007-08 | | | | 2008-09 | | | | 2009-10 (April 09- June 09) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sale | Purchase | Sale | Purchase | Sale | Purchase | Sale | Purchase | Sale | Purchase | Sale | Purchase |
| | (Rs. Mn.) | | (US $ mn.) | | (Rs. mn.) | | (US $ mn.) | | (Rs. mn.) | | (US $ mn.) | |
| Open-ended | 43,370,420 | 42,035,880 | 1,085,074 | 1,051,686 | 52,614,290 | 52,333,010 | 1,032,665 | 1,027,144 | 20,950,200 | 19,657,970 | 437,648 | 410,653 |
| Close-ended | 1,273,340 | 1,069,870 | 31,857 | 26,767 | 1,110,080 | 1,451,990 | 21,788 | 28,498 | 1,510 | 271,780 | 32 | 5,677 |
| Assured Return | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Interval fund * | -- | -- | -- | -- | 539,160 | 761,500 | 10,582 | 14,946 | 2,360 | 20,290 | 55 | 424 |
| Total | **44,643,760** | **43,105,750** | **1,116,932** | **1,078,453** | **54,263,530** | **54,546,500** | **1,065,035** | **1,070,589** | **20,954,070** | **19,950,040** | **437,729** | **416,755** |

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

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

| Scheme | 2007-08 | | | | 2008-09 | | | | 2009-10 (April 2009-June 2009) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sale | Purchase | Net In-flow/ (Outflow) | Net In-flow/ (Out-flow) | Sale | Purchase | Net In-flow/ (Outflow) | Net In-flow/ (Out-flow) | Sale | Purchase | Net In-flow/ (Outflow) | Net In-flow/ (Out-flow) |
| | (Rs. mn.) | | | (US $ mn.) | (Rs. mn.) | | | (US $ mn.) | (Rs. mn.) | | | (US $ mn.) |
| Income | 8,813,450 | 7,928,890 | 884,560 | 22,131 | 11,806,940 | 12,128,620 | -321,680 | -6,314 | 4,744,470 | 3,942,990 | 801,480 | 16,743 |
| Growth | 1,198,380 | 790,560 | 407,820 | 10,203 | 294,810 | 284,250 | 10,560 | 207 | 129,870 | 97,870 | 32,000 | 668 |
| Balanced | 114,880 | 57,200 | 57,680 | 1,443 | 26,950 | 26,350 | 600 | 12 | 8,930 | 9,590 | -660 | -14 |
| Liquid/ Money Market | 34,327,380 | 34,177,610 | 149,770 | 3,747 | 41,879,770 | 41,915,760 | -35,990 | -706 | 16,045,600 | 15,862,300 | 183,300 | 3,829 |
| Gilt | 31,800 | 27,460 | 4,340 | 109 | 146,960 | 110,900 | 36,060 | 708 | 12,490 | 24,610 | -12,120 | -253 |
| ELSS | 64,480 | 2,970 | 61,510 | 1,539 | 33,240 | 3,560 | 29,680 | 583 | 4,420 | 3,360 | 1,060 | 22 |
| GOLD ETFs | 4,330 | 1,560 | 2,770 | 69 | 2,710 | 1,870 | 840 | 16 | 1,660 | 300 | 1,360 | 28 |
| Other ETFs * | 89,060 | 119,500 | -30,440 | -762 | 54,480 | 65,300 | -10,820 | -212 | 5,610 | 5,070 | 540 | 11 |
| Funds of Funds Investing Overseas ** | -- | -- | -- | -- | 17,670 | 9,890 | 7,780 | 153 | 1,020 | 3,950 | -2,930 | -61 |
| **Total** | **44,643,760** | **43,105,750** | **1,538,010** | **38,479** | **54,263,530** | **54,546,500** | **-282,970** | **-5,554** | **20,954,070** | **19,950,040** | **1,004,030** | **20,974** |

* *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

2009-10 are presented in **(Table:3-3 A).**

### *Resource Mobilisation according to Investment Objective*

The **liquid/money market** schemes have become very popular among investors due to the attractive returns delivered by them. They account for almost 77% of the total gross resource mobilisation (sales) and the redemptions (purchases). During 2008-08, the net outflow by these funds was Rs. 35, 990 (US $ 706 million).

The **Income/Debt Oriented** Schemes which provide regular and steady income to investors by investing in fixed income securities such as bonds, corporate debentures, government securities and money market instruments are also popular among investors and account for 21.76 % of the total sales of all the schemes. This scheme witnessed net outflow of Rs. 321,680 million (US $ 6,314 million) during 2008-09.

Maximum net inflow of funds of Rs.36,060 million (US $ 708) was witnessed by gilt edged funds followed by ELSS schemes with net inflow of funds of Rs.29,680 million (US $ 583 million). The scheme-wise resource mobilisation by mutual funds for 2007-08, 2008-09 and the first quarter of the fiscal 2009-10 are presented in (Table: 3-3 B).

### Assets under Management

As on March 31, 2009, the MFs have managed assets of Rs. 4,173,000 million (US $ 81,904 million). As shown in Table 3-2, the share of private sector MFs in total assets decreased to 80.26 % at end March 2009 from 82.28 % in March 2008.

The open ended schemes and the close ended schemes as at end-March 2009 accounted for 77.92 % and 21.39 % of total assets under management of MFs, respectively in Table 3-4 and Chart 3-3.

**Table 3-4: Assets under Management**

| Scheme | At the end of March 2009 | | | | | | At the end of June 2009 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Open Ended | Close Ended | Inter-val Fund | Total | Total | % to total | Open Ended | Close Ended | Interval Fund *** | Total | Total (US $ mn) |
| | (Rs. mn.) | | | | (US $ mn) | | (Rs. mn.) | | | | |
| Income | 1,252,120 | 693,470 | 27,840 | 1,973,430 | 38,733 | 47.29 | 2,391,180 | 449,730 | 8,390 | 2,849,300 | 48.90 |
| Growth | 791,620 | 165,490 | 1,060 | 958,170 | 18,806 | 22.96 | 1,194,910 | 230,390 | 2,840 | 1,428,140 | 24.51 |
| Balanced | 91,330 | 14,960 | – | 106,290 | 2,086 | 2.55 | 132,600 | 24,000 | – | 156,600 | 2.69 |
| Liquid/Money Market | 905,940 | – | – | 905,940 | 17,781 | 21.71 | 1,112,150 | – | – | 1,112,150 | 19.09 |
| Gilt | 64,130 | – | – | 64,130 | 1,259 | 1.54 | 54,800 | – | – | 54,800 | 0.94 |
| ELSS | 105,700 | 18,570 | – | 124,270 | 2,439 | 2.98 | 156,690 | 25,600 | – | 182,290 | 3.13 |
| Gold ETF | 7,360 | – | – | 7,360 | 144 | 0.18 | 8,440 | – | – | 8,440 | 0.14 |
| Other ETFs * | 6,600 | – | – | 6,600 | 130 | 0.16 | 8,980 | – | – | 8,980 | 0.15 |
| Funds of Funds Investing Overseas ** | 26,810 | – | – | 26,810 | 526 | 0.64 | 26,090 | – | – | 26,090 | 0.45 |
| **Total** | **3,251,610** | **892,490** | **28,900** | **4,173,000** | **81,904** | **100.00** | **5,085,840** | **729,720** | **11,230** | **5,826,790** | **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.

The income schemes accounted for 47.29 % of total assets under management as at end-March 2009, followed by growth schemes with 22.96 %. The liquid/money market schemes accounted for 21.71% of assets under management of MFs as at end-March 2009. (Chart 3-3).

### Trading Value of Mutual Funds at NSE

As of March 2009, there were 11 schemes of mutual funds listed on NSE and by June 2009 this number increased to 86. The total traded value these mutual funds during the fiscal 2008-09 was Rs. 2,109.51 million (US $ 41.40 million) which was 27% less than last year. During the first quarter of the fiscal 2009-10 the traded value of mutual funds amounted to Rs.36.13 million (US $ 0.75 million) (Table 3-5).

**Table 3-5: Trading Value of Mutual Funds (close-ended schemes) at NSE**

| Year | Trading Value (Rs. million) | Trading Value (US $ million) |
|---|---|---|
| 2007-08 | 2,888.40 | 72.26 |
| 2008-09 | 2,109.51 | 41.40 |
| April 09-June 2009 | 36.13 | 0.75 |

*Source: NSE*

### Unit Holding Pattern of Mutual Funds

According to SEBI published statistics, the details of unitholding pattern of mutual funds as on March 31, 2009 as shown in Table 3-6. From the table it can be observed that while individual investors accounted for 97% of the total number of investors, their share in the net assets of the mutual funds was 37%. On the other hand, the corporates and institutions accounted for 56 % of the net assets of the MF industry.

**Table 3-6: Unit Holding Pattern of Mutual Funds**

| Category | Number of Investor Accounts | | | Net Assets (Rs.mn) | | |
|---|---|---|---|---|---|---|
| | 2007-08 | 2008-09 | Y-o-Y Increase | 2007-08 | 2008-09 | Y-o-Y Increase |
| **Individuals** | 42,014,713 | 46,075,763 | 9.67 | 1,874,640 | 1,552,830 | -17.17 |
| **NRIs** | 857,950 | 971,430 | 13.23 | 246,970 | 228,210 | -7.60 |
| **FIIs** | 902 | 146 | -83.81 | 84,010 | 49,840 | -40.67 |
| **Corporate/ Institutions/Others** | 501,599 | 575,938 | 14.82 | 2,871,080 | 236,233 | -17.72 |
| **Total** | 43,375,164 | 47,623,277 | 9.79 | 5,076,700 | 4,193,210 | -17.40 |

**Source: SEBI**

### Index Funds

As of June 2009, there were 35 Index Funds. The performance of these index funds (in terms of returns : 3 month, 6 month and 12 months) along with their details such as their date of launch and their underlying index is shown in Table 3-7**.** Comparison of Nifty based index funds with Nifty is depicted in Chart 3-4 A and B while comparison of Sensex based funds with Sensex is depicted in Chart 3-5.

**Table 3-7: Performance of Index Funds**

| | Index Funds -Schemewise | Launch Date | Benchmark Index | Returns (in %) | | |
|---|---|---|---|---|---|---|
| | | | | 3m | 6m | 12 m |
| 1 | Birla Sun Life Index Fund - Dividend | 18-Sep-02 | Nifty 50 | 41.46 | 45.06 | 6.57 |
| 2 | Birla Sun Life Index Fund - Growth | 18-Sep-02 | Nifty 50 | 41.46 | 45.06 | 6.57 |
| 3 | Canara Robeco Nifty Index - Dividend | 8-Oct-04 | Nifty 50 | 40.86 | 45.19 | 8.32 |
| 4 | Canara Robeco Nifty Index - Growth | 8-Oct-04 | Nifty 50 | 41.30 | 42.10 | 5.28 |
| 5 | Franklin India Index Fund - NSE Nifty Plan - Dividend | 4-Aug-00 | Nifty 50 | 41.72 | 44.65 | 5.65 |
| 6 | Franklin India Index Fund - NSE Nifty Plan - Growth | 26-Mar-04 | Nifty 50 | 41.72 | 44.65 | 5.65 |
| 7 | HDFC Index Fund - Nifty Plan | 17-Jul-02 | Nifty 50 | 39.11 | 41.95 | 5.23 |
| 8 | ICICI Prudential Index Fund | 26-Feb-02 | Nifty 50 | 42.21 | 45.48 | 8.84 |
| 9 | ICICI Prudential Index Fund - IP - Growth | | Nifty 50 | -- | -- | -- |
| 10 | ING Nifty Plus Fund - Dividend | 23-Feb-04 | Nifty 50 | 41.26 | 43.53 | 5.84 |
| 11 | ING Nifty Plus Fund - Growth | 23-Feb-04 | Nifty 50 | 41.16 | 43.42 | 5.76 |
| 12 | JM Nifty Plus Fund - Dividend | 2-Feb-09 | Nifty 50 | 34.04 | -- | -- |
| 13 | JM Nifty Plus Fund - Growth | 2-Feb-09 | Nifty 50 | 34.04 | -- | -- |
| 14 | LIC MF Index Fund - Nifty Plan - Dividend | 6-Dec-02 | Nifty 50 | 39.92 | 39.81 | 2.19 |
| 15 | LIC MF Index Fund - Nifty Plan - Growth | 6-Dec-02 | Nifty 50 | 39.92 | 39.81 | 2.19 |
| 16 | PRINCIPAL Index Fund - Dividend | 26-Jul-99 | Nifty 50 | 40.53 | 42.28 | -21.92 |
| 17 | PRINCIPAL Index Fund - Growth | 26-Jul-99 | Nifty 50 | 40.56 | 42.29 | 3.05 |
| 18 | SBI Magnum Index Fund - Dividend | 17-Jan-02 | Nifty 50 | 41.70 | 44.82 | 6.29 |
| 19 | SBI Magnum Index Fund - Growth | 17-Jan-02 | Nifty 50 | 41.75 | 44.46 | 4.81 |
| 20 | Tata Index Fund - Nifty Plan - Option A | 25-Feb-03 | Nifty 50 | 41.02 | 43.42 | 4.62 |
| 21 | UTI Master Index Fund - Dividend | 1-Jun-98 | Nifty 50 | 48.99 | 49.26 | 6.36 |
| 22 | UTI Nifty Fund - Dividend | 14-Feb-00 | Nifty 50 | 41.14 | 43.83 | 5.48 |
| 23 | UTI Nifty Fund - Growth | 14-Feb-00 | Nifty 50 | 41.14 | 43.82 | 5.49 |
| 24 | Benchmark S&P CNX 500 Fund - Dividend | 6-Jan-09 | S&P CNX 500 | 48.58 | -- | -- |
| 25 | Benchmark S&P CNX 500 Fund - Growth | 6-Jan-09 | S&P CNX 500 | 48.56 | -- | -- |
| 26 | Franklin India Index Fund - BSE Sensex Plan - Dividend | 26-Mar-04 | Sensex | 48.56 | 49.24 | 7.57 |
| 27 | Franklin India Index Fund - BSE Sensex Plan - Growth | 26-Mar-04 | Sensex | 48.56 | 49.24 | 7.57 |
| 28 | HDFC Index Fund - Sensex Plan | 17-Jul-02 | Sensex | 46.78 | 45.65 | 3.85 |
| 29 | HDFC Index Fund - Sensex Plus Plan | 17-Jul-02 | Sensex | 48.43 | 45.80 | 14.33 |
| 30 | LIC MF Index Fund - Sensex Advantage Plan - Div | 6-Dec-02 | Sensex | 48.52 | 46.60 | 7.63 |
| 31 | LIC MF Index Fund - Sensex Advantage Plan - Growth | 6-Dec-02 | Sensex | 48.52 | 46.60 | 7.63 |
| 32 | LIC MF Index Fund - Sensex Plan - Dividend | 6-Dec-02 | Sensex | 44.95 | 46.71 | 5.29 |
| 33 | LIC MF Index Fund - Sensex Plan - Growth | 6-Dec-02 | Sensex | 44.95 | 46.71 | 5.29 |
| 34 | Tata Index Fund - Sensex Plan - Option A | 25-Feb-03 | Sensex | 48.73 | 49.04 | 6.80 |
| 35 | UTI Master Index Fund - Growth | 1-Jun-98 | Sensex | 48.99 | 49.26 | 6.36 |

Returns are calculated as at end of June 2009

*Source: ICRA & NSE*

**Chart 3-4A: Comparison of different Index Funds vis-à-vis Nifty (Growth Schemes) (NAVs of Index Funds rebased to 100 for June 30, 2008)**

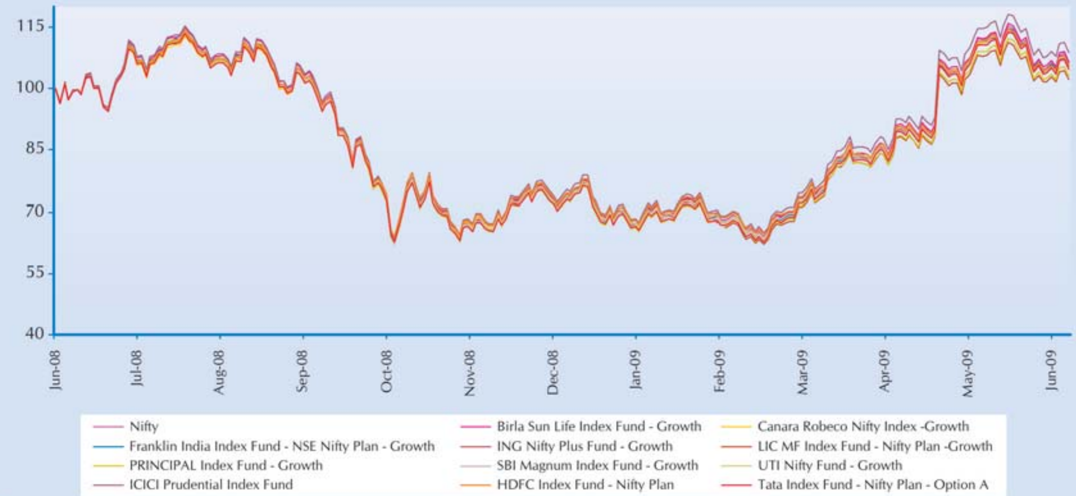
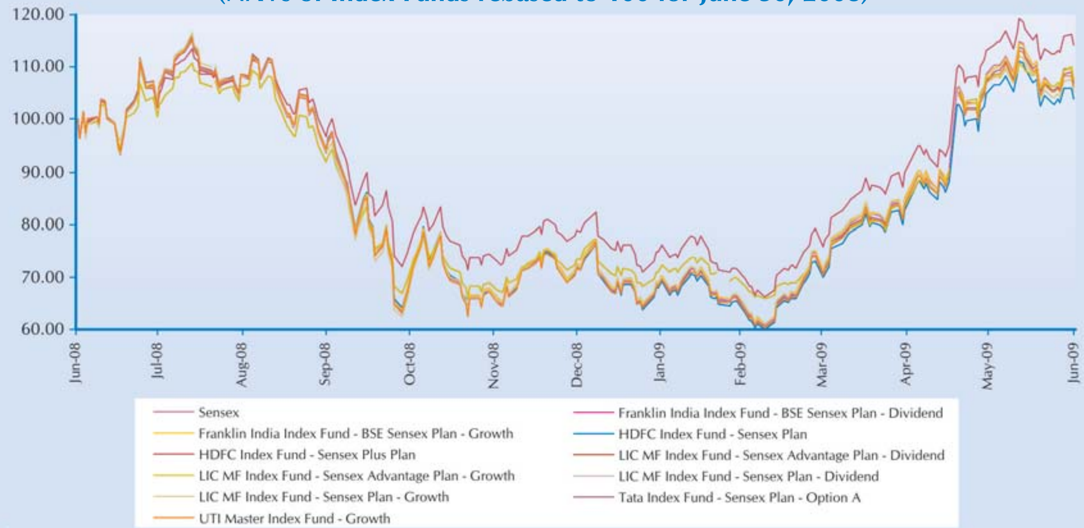



**Chart 3-4B: Comparison of different Index Funds vis-à-vis Nifty (Dividend scheme) (NAVs of Index Funds rebased to 100 for June 30, 2008)**

Chart 3-5: Performance of Sensex Underlying Index Funds vis-à-vis Sensex (Growth & Dividend Scheme) (NAVs of Index Funds rebased to 100 for June 30, 2008)




## Exchange Traded Funds

As of June 2009, there were 18 exchange traded funds in India (listed at NSE & BSE), out of which there were 12 Index based ETFs and 6 Gold based ETFs. The performance of these exchange traded funds (in terms of returns -3 month, 6 month and 12 months) along with their details such as their date of launch and their underlying index is shown in Table 3-8.

### Table 3-8: 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 | Nifty BeES | Index Based - Nifty 50 | Benchmark Mutual Fund | NSE | Dec 28, 2001 | 41.94 | 45.12 | 5.90 |
| 2 | Junior BeES | Index Based - CNX Nifty Junior | Benchmark Mutual Fund | NSE | Feb 21, 2003 | 78.65 | 70.04 | 24.69 |
| 3 | S&P CNX NIFTY UTI Notional Depository Reciepts Scheme (SUNDER) | Index Based - Nifty 50 | UTI | NSE | July 7, 2003 | 41.19 | 44.52 | 7.44 |
| 4 | Liquid BeES | Money Market ETF | Benchmark Mutual Fund | NSE | May 27, 2004 | 0.66 | 1.63 | 5.20 |
| 5 | Bank BeES | Index Based - CNX Bank | Benchmark Mutual Fund | NSE | May 27, 2004 | 79.31 | 46.78 | 46.73 |
| 6 | PSU Bank BeES | Index Based - CNX PSU Bank | Benchmark Mutual Fund | NSE | Nov 1, 2007 | 70.11 | 38.54 | 64.50 |
| 7 | Kotak PSU Bank ETF | Index Based - CNX PSU Bank | Kotak | NSE | Nov 16, 2007 | 71.31 | 39.10 | 65.39 |
| 8 | Quantum Index Fund - Growth | Index Based - Nifty 50 | Quantum | NSE | July 18, 2008 | 41.46 | 44.64 | -- |
| 9 | Reliance Banking ETF | Index Based - CNX Bank | Reliance | NSE | June 27, 2008 | 79.14 | 48.87 | 49.34 |

*Contd.*

*Contd.*

| | ETFs | Type of ETF | Launched by | Listed at | Launch Date | 3 month | 6 month | 12 month |
|---|---|---|---|---|---|---|---|---|
| | **Index Based ETF** | | | | | | | |
| 10 | Shariah BeES | Index Based - Nifty 50 | Benchmark Mutual Fund | NSE | March 18, 2009 | 43.21 | -- | -- |
| 11 | ICICI SENSEX Prudential Exchange Traded Fund (SPICE) | Index Based- Sensex | ICICI | BSE | Jan 13, 2003 | 48.16 | 49.18 | 10.06 |
| 12 | Kotak Sensex ETF | Index Based-Sensex | Kotak | BSE | June 16, 2008 | 49.55 | 50.49 | 8.51 |
| | **GOLD ETFs** | | | | | | | |
| 13 | UTI Gold ETF | Based on Gold | UTI | NSE | March 1, 2007 | -3.95 | 6.90 | 11.26 |
| 14 | Gold BeES | Based on Gold | Benchmark Mutual Fund | NSE | March 19, 2007 | -4.07 | 6.94 | 11.29 |
| 15 | Kotak Gold ETF (KOTAKGOLD) | Based on Gold | Kotak | NSE | August 8, 2007 | -4.05 | 6.93 | 11.27 |
| 16 | Quantum Gold Fund - Growth (QNIFTY) | Based on Gold | Quantum | NSE | Feb 28, 2008 | -3.95 | 6.85 | 11.35 |
| 17 | Reliance Gold ETF - Dividend (RELGOLD) | Based on Gold | Reliance | NSE | June 27, 2008 | -3.95 | 6.68 | 9.73 |
| 18 | SBI Gold ETF | Based on Gold | SBI | NSE | May 28, 2009 | -- | -- | -- |

*Source : ICRA & NSE*

The total traded value of the 18 ETFs listed on NSE & BSE during the fiscal 2008-09 was Rs. 44,147.26 million (US $ 922.05 million). The details of the sales, redemptions and Assets under Management of ETFs are presented in (Table 3-3 B and Table 3-4) while the details of ETF turnover at NSE & BSEis given in Table 3-9. The turnover of index based ETFs vis-a-vis gold ETFs is shown in chart 3-6. The performance of Gold ETF vis-à-vis gold can be seen from Chart 3-7.

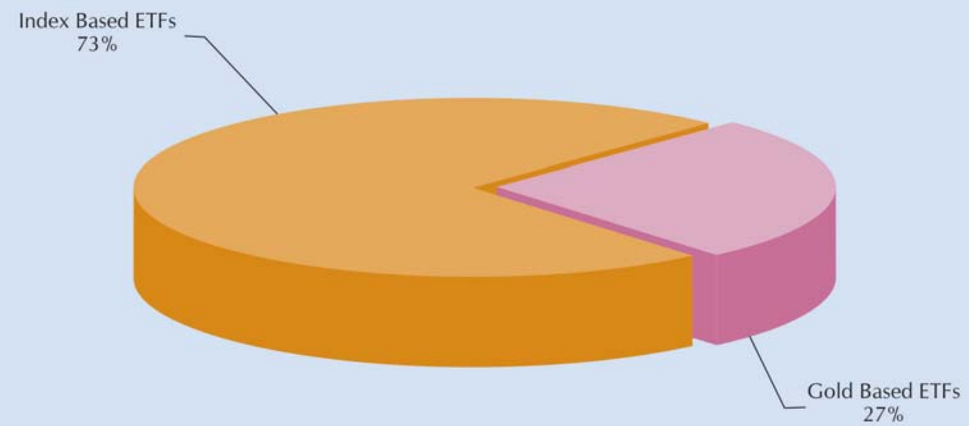
**Chart 3-6: Performance of Gold ETF vis-a-vis Gold (NAVs of Gold ETFs & Value of Gold rebased to 100)**

**Table 3-9: Turnover of ETFs listed at NSE and BSE**

| Sr. No. | | Name of ETF | 2008-09 | | | April - June 2009 | |
|---|---|---|---|---|---|---|---|
| | | | ETF Symbol | Sum of Total Traded Value (Rs. Mn) | Sum of Total Traded Value (US $ mn) | Sum of Total Traded Value (Rs. Mn) | Sum of Total Traded Value (US $ mn) |
| 1 | INDEX BASED ETFs | Benchmark Asset Management Company Bank BeES | BANKBEES | 6,210.07 | 129.73 | 122.60 | 2.56 |
| 2 | | S&P CNX NIFTY UTI Notional Depository Receipts Scheme (SUNDER) | UTISUNDER | 3.60 | 0.08 | 3.18 | 0.07 |
| 3 | | Benchmark Mutual Fund-Nifty Junior Benchmark ETF | JUNIORBEES | 105.14 | 2.20 | 261.00 | 5.45 |
| 4 | | Kotak PSU Bank ETF | KOTAKPSUBK | 24.25 | 0.51 | 18.82 | 0.39 |
| 5 | | Liquid Benchmark ETF-Liquid BeES | LIQUIDBEES | 18,686.62 | 390.36 | 5,727.00 | 119.64 |
| 6 | | Benchmark Mutual Fund-Nifty BeES | NIFTYBEES | 7,176.47 | 149.92 | 3,936.99 | 82.24 |
| 7 | | PSU Bank BeES | PSUBNKBEES | 32.64 | 0.68 | 31.64 | 0.66 |
| 8 | | Reliance Banking ETF | RELBANK | 35.10 | 0.73 | 25.96 | 0.54 |
| 9 | | Benchmark Mutual Fund - Shariah Bench-mark Exchange Traded Scheme (ETF) | SHARIABEES | -- | -- | 3.84 | 0.08 |
| 10 | | ICICI SENSEX Prudential Exchange Traded Fund (SPICE)-Listed at BSE | SPICE - ETF | 0.99 | 0.02 | 0.79 | 0.02 |
| 11 | | Kotak Sensex | Kotak SENSEX ETF | 141.24 | 2.77 | 7.05 | 0.15 |
| 12 | | Quantum Index Fund -Exchange Traded Fund (ETF) | QNIFTY | 8.16 | 0.17 | 4.16 | 0.08 |
| | | **Total Turnover of Index Funds** | | **32,424.28** | **677.16** | **10,143.05** | **211.88** |
| 13 | GOLD BASED ETFs | Quantum Gold Fund -Exchange Traded Fund (ETF) | QGOLDHALF | 115.95 | 2.42 | 35.74 | 0.70 |
| 14 | | Reliance Gold ETF - Dividend | RELGOLD | 1,859.32 | 38.84 | 311.81 | 6.12 |
| 15 | | SBI Mutual Fund - SBI Gold Exchange Traded Scheme - Growth Option # | SBIGETS | -- | -- | 29.41 | 0.58 |
| 16 | | Benchmark Mutual Fund - Gold Bench-mark Exchange Traded Scheme | GOLDBEES | 6,705.26 | 140.07 | 1,211.02 | 23.77 |
| 17 | | UTI Mutual Fund - UTI Gold Exchange Traded Fund | GOLDSHARE | 1,935.76 | 40.44 | 278.59 | 5.47 |
| 18 | | Kotak Gold ETF | KOTAKGOLD | 1,106.68 | 23.12 | 108.67 | 2.13 |
| | | **Total Turnover of Gold Based ETFs** | | **11,722.98** | **244.89** | **1,975.26** | **38.77** |
| | | **Total Turnover of all ETFs** | | **44,147.26** | **922.05** | **12,118.30** | **250.65** |
| | | Percentage of Index Funds Turnover to total ETF turnover | | 73.45 | | 83.70 | |
| | | Percentage of Gold based ETF Turnover to total ETF turnover | | 26.55 | | 16.30 | |

Source: NSE & BSE

**Chart 3-7: Percentage Share of turnover of Index based ETFs vis a vis Gold based ETFs.**




## Venture Capital Funds

As on March 31, 2009 the total count of VCFs stood at 132. Details of Industry wise Cumulative Investment details of SEBI Registered Venture Capital Funds (VCF) are detailed in Table 3-10. All VCFs are required to provide information pertaining to their venture capital activity for every quarter starting from the quarter ending December 2000.

**Table 3-10: Industry wise Cumulative Investment details of SEBI Registered Venture Capital Funds (VCF)**

| Sectors of Economy | 31-Mar-09 | 30-Jun-09 |
|---|---|---|
| | VCF | VCF |
| | (Rs.mn) | (Rs.mn) |
| Information technology | 8,050 | 7,652 |
| Telecommunications | 2,150 | 2,138 |
| Pharmaceuticals | 8,290 | 7,848 |
| Biotechnology | 3,170 | 3,158 |
| Media/ Entertainment | 7,210 | 8,839 |
| Services Sector | 17,700 | 17,463 |
| Industrial Products | 11,390 | 11,502 |
| Real Estate | 52,420 | 50,696 |
| Others | 117,330 | 112,624 |
| **Total** | **227,710** | **221,920** |

Source : SEBI
Note
Total for March 31, 2009 VCF investments includes Rs.82400 million of FVCI investments in VCF.
Total for June 30, 2009 VCF investments includes Rs.91920 mn of FVCI investments in VCF.

# Capital Market

## Introduction

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

Secondary market comprises of equity markets and the debt markets. This chapter focuses on equity markets, while debt markets are dealt with in chapter 6.

## Trading Mechanism

NSE was the first stock exchange in the country set up as a national exchange having nation-wide access with fully automated screen based trading system. NSE has become the largest exchange in India with approximately 71%, as in 2008-09, of the total trading volumes on it. It is one of the very few exchanges in the world to also have adopted anonymous order matching system.

National Exchange for Automated Trading (NEAT) is the trading system of NSE. NEAT facilitates an on-line system which is fully automated and provides, nationwide, anonymous, order driven, screen-based trading. In this system, a member can punch into the computer, the quantities of securities and the prices at which he likes to transact and the transaction is executed as soon as it finds a matching sale for buy order for a counter party. The numerous advantages of the NEAT system are detailed out below :

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

The trading platform of the CM segment is accessed not only from the computer terminals from the premises of brokers spread over about 192 cities, but also from the personal computers in the homes of investors through the Internet.

## Policy Developments

Over the past years the Government and the market regulators have taken several policy measures to improve the operations of the stock exchanges and market intermediaries. The measures are aimed at improving the market infrastructure and upgradation of risk containment, so as to protect the interest of the investors. The recent policy developments (September 2008 to August 2009) pertaining to secondary markets segment are enumerated below.

### 1. Shareholding in Stock Exchanges

Currently a person, along with persons acting in concert, can hold up to 5% of shares in a recognized stock exchange. In order to encourage competition in the exchange space, the SEBI Board, at its meeting held on October 6, 2008, decided to enhance this limit from 5% to 15% in respect of six categories of shareholders, namely, public financial institutions, stock exchanges, depositories, clearing corporations, banks and insurance companies.

Accordingly, the Securities Contracts (Regulation) (Manner of Increasing and Maintaining Public Shareholding in Recognized Stock Exchanges) Regulations, 2008 were amended on December 23, 2008.

### 2. Cross Margining across Exchange traded Equity (Cash) and Exchange traded Equity Derivatives (Derivatives) segments

In continuation of SEBI Circular dated May 05, 2008 on the cross margining facility across cash and derivatives segments for institutional trades, in order to improve the efficiency of the use of the margin capital by market participants, it was decided by SEBI, vide circular dated December 02, 2008, to revise the existing facility of cross margining and to extend it across cash and derivatives segments to all categories of market participants. The features of the revised cross margining facility are detailed below:

1. ***Positions eligible for cross margining benefit***

   a. The positions of clients in both the cash and derivatives segments to the extent they offset each other shall be considered for the purpose of cross margining as per the following priority:

      - Index futures position and constituent stock futures position in derivatives segment
      - Index futures position in derivatives segment and constituent stock position in cash segment
      - Stock futures position in derivatives segment and the position in the corresponding underlying in cash segment

   b. A basket of positions in index constituent stock/stock futures, which is a complete replica of the index in the ratio specified by the Exchange/Clearing Corporation, shall be eligible for cross margining benefit.

   c. The positions in the derivatives segment for the stock futures and index futures shall be in the same expiry month to be eligible for cross margining benefit.

2. ***Computation of cross margin***

   a. To begin with, a spread margin of 25% of the total applicable margin on the eligible off-setting positions, as mentioned in para 1 (a) above, shall be levied in the respective cash and derivative segments.

   b. Cross margining benefit shall be computed at client level on an online real time basis and provided to the trading member / clearing member / custodian, as the case may be, who, in turn, shall pass on the benefit to the client. For institutional investors, however, the cross margining benefit shall be provided after confirmation of trades.

### 3. Separate accounts

To avail the facility of cross margining, a client may maintain two accounts with the trading member / clearing member, namely arbitrage account and a non-arbitrage account, to allow converting partially replicated portfolio into a fully replicated portfolio by taking opposite positions in two accounts. However, for the purpose of compliance and reporting requirements, the positions across both accounts shall be taken together and client shall continue to have unique client code.

### 4. Settlement

To begin with, a client may settle through a trading member / clearing member / custodian, as the case may be, who is clearing in both the segments or through two trading members / clearing members / custodians, one of whom is a trading member / custodian in the cash segment and the other is a clearing member in the derivatives segment. However, in course of time, a client will settle through only one clearing member who is a member in both the segments.

### 5. Default

In the event of default by a trading member / clearing member / custodian, as the case may be, whose clients have availed cross margining benefit, the Stock Exchange / Clearing Corporation shall have the option to:

- Hold the positions in the cross margin account till expiry in its own name.
- Liquidate the positions / collateral in either segment and use the proceeds to meet the default obligation in the other segment.

## 3. Framework for recognition and supervision of stock exchanges/ platforms of stock exchanges for small and medium enterprises

SEBI, in May, 2008, floated a discussion paper on developing a market for Small and Medium Enterprises (SMEs) in India, inviting public comments on issues raised therein. The paper recognized that the SMEs play a catalytic role in the development process of most economies as they constitute a major part of the industrial activity in these economies. This is reflected in the form of their increasing number and rising proportion in the overall product manufacturing, employment, technical innovations and promotion of entrepreneurial skills. The paper further added that the contribution of SMEs in the development of Indian economy has been significant, both in terms of contribution to GDP and creation of employment opportunities. They contribute around 20% of GDP and are the largest generator of employment (approximately 25 million). In India, SME sector is the second largest employer, after agriculture. With the Indian economy growing at more than 9 per cent and size of the economy crossing the $1 trillion mark, the need of SMEs to raise capital is becoming increasingly critical.

The paper highlighted the concerns of various market participants and industry representatives on the state on SME sector in the country, which, inter-alia, included the high cost of raising capital for SMEs; inadequate means of financing for SMEs as they do not have easy access to funds from Angel Investors, VCs and PE players; the need for SMEs to be provided with a framework that would enable them to raise capital quickly and at a low cost.

In view of the aforesaid concerns SEBI recognized there is a felt need for developing a dedicated stock exchange for the SME sector so that SMEs can access capital markets easily, quickly and at lower costs. Such dedicated SME exchange is expected to provide better, focused and cost effective service to the SME sector.

Accordingly, SEBI, after due consultation process announced, on *5th November, 2008,* the framework for recognition and supervision of stock exchanges/ platforms of stock exchanges for SMEs, as reproduced below:

I. *Eligibility criteria for setting up of new stock exchange/platform of an existing stock exchange for the SME sector.*

Dedicated stock exchanges for the Small and Medium Enterprises (SME) sector may be set up after obtaining due recognition under the Securities Contracts (Regulation) Act – 1956 (SCRA hereinafter). The eligibility criteria for the same are as under.

a. The proposed stock exchange should be set up as a corporatised entity since inception. It shall convert itself into a demutualised entity and comply with the Securities Contracts (Regulation) (Manner of Increasing and Maintaining Public Shareholding in Recognised Stock Exchanges) Regulations, 2006 within a specified period (1-2 years) from the date of commencement of trading.

b. The exchange shall have a balance sheet networth of atleast Rs. 100 crores.

c. The exchange shall have nation wide trading terminals and an online screen-based trading system, which also has a suitable Business Continuity Plan including a disaster recovery site.

d. The exchange shall have an online surveillance capability which monitors positions, prices and volumes in real time so as to check market manipulation.

e. The exchange shall have adequate arbitration and investor grievances redressal mechanism operative from all the four regions of the country.

f. The exchange shall have adequate inspection capability.

g. The risk management system and surveillance system shall be the same as that of the cash market.

h. The trading members of the SME exchange shall register themselves with the exchange and SEBI.

i. Information about trades, quantities, and quotes shall be disseminated by the exchange in real time to at least two information vending networks which are accessible to investors in the country.

The above eligibility criteria shall also be applicable, wherever appropriate, to existing exchanges desirous of setting up a platform for the SME sector.

II. *Trading, clearing and settlement*

a. The minimum trading lot shall be Rs. 1 lakh.

b. Trading system may either be order driven or quote driven. The settlement may either be on rolling, trade for trade or call auction basis.

c. The clearing function of the exchange may be performed by a clearing corporation/ clearing house.

III. Parties interested in setting up a dedicated stock exchange for the SME sector may apply to Market Regulation Department, SEBI, in the manner prescribed under the Securities Contracts (Regulation) Rules, 1957. Existing exchanges desirous of setting up a platform for the SME sector may submit a detailed application demonstrating their compliance with the eligibility criteria mentioned under (I) above alongwith the proposed Rules, Regulations and Byelaws for the SME platform.

## 4. Guidelines in respect of exit option to Regional Stock Exchanges

SEBI Board approved the broad guidelines as under, to provide an exit option to such Regional Stock Exchanges (RSEs) whose recognition is withdrawn and/or renewal of recognition is refused by SEBI and RSEs who may want to surrender their recognition. In all such cases, an appropriate order will be passed by SEBI.

As per the said guidelines, such RSEs (or their successor entities) may be permitted to retain movable and immovable assets and to deal with such assets as they deem fit subject to compliance with the following conditions *(SEBI circular dated December 29, 2008):*

i. The Investor Protection Fund, Investor Services Fund, 1% security deposit available with such exchanges shall be transferred to the SEBI Investor Education and Protection Fund. The 1% security deposit shall subsequently be returned to the issuer company in due course on satisfying the prescribed conditions.

ii. Statutory dues outstanding to SEBI including 10% of the listing fee and the annual regulatory fee, shall be transferred to SEBI.

iii. Consequent upon de-recognition, the trading members of such exchanges shall cease to be trading members and therefore liable to be de-registered as stock brokers, and their certificate of registration granted by SEBI shall accordingly stand automatically cancelled.

iv. The brokers/trading members of such de-recognised stock exchanges shall be liable to pay SEBI registration fees as per Schedule III of the SEBI (Stock Brokers and Sub Brokers) Regulations, 1992 till the date of such de-recognition. Dues of the brokers to SEBI shall be recovered by the exchange out of the brokers' deposits / capital / share of sale proceeds / winding up proceeds / dividend payable, etc. available with the exchange and transferred to SEBI.

v. In case the stock exchange, after de-recognition, continues as a corporate entity under the Companies Act, 1956, it shall not use the expression 'stock exchange' or any variant in its name or in its subsidiaries name so as to avoid any representation of any present or past affiliation with the stock exchange.

vi. The subsidiaries of de-recognised stock exchanges may continue to function as any other normal broking entity with a suitable change of name so as to avoid any representation of any present or past affiliation with the stock exchange. Further, the additional conditions specified by SEBI vide circulars dated November 26, 1999 dated December 16, 1999 would not apply to the said broking entity.

vii. In case of sale/distribution/transfer of assets/winding up of such exchanges/ companies, the relevant provisions of the various laws such as Income Tax Act, 1961, the Companies Act, 1956, Stamp Act, etc. would apply. SEBI would inform the concerned State Governments about derecognition of a Stock Exchange.

viii. The companies which are listed in such de-recognised RSEs and also listed in any other stock exchange(s) may continue to remain listed in the other stock exchange(s). In case of companies exclusively listed on those de-recognised stock exchanges, it shall be mandatory for such companies to either seek listing at other stock exchanges or provide for exit option to the shareholders as per SEBI Delisting Guidelines / Regulations after taking shareholders' approval for the same, within a time frame, to be specified by SEBI, failing which the companies shall stand delisted through operation of law.

ix. The stock exchange shall set aside sufficient funds in order to provide for settlement of any claims, pertaining to pending arbitration cases, arbitration awards, not implemented, if any, liabilities/claims of contingent nature, if any, and unresolved investors complaints/grievances lying with the exchange.

## 5. Comprehensive Risk Management Framework for the cash market

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

## 6. Review of Securities Lending and Borrowing (SLB) Framework

The framework for SLB was specified vide SEBI circular dated December 20, 2007. SLB was operationalised with effect from April 21, 2008. Pursuant to feedback from market participants and proposals for revision of SLB received from NSE and BSE, SEBI has revised the framework, vide its circular dated October 31, 2008, as under:

**Tenure:** Tenure for SLB may be increased to 30 days from the present 7 days.

**Corporate Actions during the 30 day SLB contract:** The SLB tenure of 30 days will result in the need for appropriate adjustments for corporate actions. The corporate actions may be treated as follows:

a. *Dividend:* The dividend amount would be worked out and recovered from the borrower at the time of reverse leg and passed on to the lender.

b. *Stock split*: The positions of the borrower would be proportionately adjusted so that the lender receives the revised quantity of shares.

c. *Other corporate actions such as bonus/ merger/ amalgamation / open offer etc:* The transactions would be foreclosed from the day prior to the ex-date. The lending fee would be recovered on a pro-rata basis from the lender and returned to the borrower.

d. *Time window for SLB:* The time for SLB session may be extended from the present one hour (10 am to 11 am) to the normal trade timings of 9:55 am to 3:30 pm.

### Risk Management:

a. With regard to risk management in SLB, SEBI has advised that common risk management practices shall be followed by stock exchanges for SLB. SEBI reiterated that the exchanges should ensure that the risk management framework strikes a balance between ensuring commercial viability of SLB transactions and ensuring adequate and proper risk management. Exchanges should satisfy themselves regarding the adequacy of the risk management system.

b. Margins in SLB may be taken in the form of cash and cash equivalents as prescribed in the circular dated February 23, 2005.

## Market Design[1]

**Stock Exchanges**

At the end of March 2009, there were 20 *stock exchanges* registered with SEBI having a total of 8,652 registered brokers and 62,471 registered sub-brokers trading on them (Annexure 4-1). The stock exchanges need to be recognized under the Securities Contracts (Regulation) Act, 1956. The SEBI has approved and notified the Corporatisation and Demutualisation Scheme of 20 Stock Exchanges. NSE since inception has adopted a demutualised structure and its model of demutualization compares well with the international models of demutualised stock exchanges. Some important features of the NSE structure are:

a. It is a for-profit company, owned by Shareholders which are financial institutions which also have broking firms as subsidiaries;

b. Ownership, trading rights and management are segregated;

c. The Board of NSE comprises of representatives of shareholders, academics, chartered accountants, legal experts etc. Of these, 3 directors are nominated by SEBI and 3 directors are public representatives approved by SEBI.

**Membership**

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

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

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| *Eligibility Criteria* | The minimum standards stipulated by NSE are over and above those laid down by the SEBI. The admission of trading members on NSE is based on various criteria like age, capital adequacy, financial track record, education, experience and fulfillment of criteria of "fit & proper person" as laid down in SEBI (Intermediaries) Regulations 2008. The detailed eligibility criteria and deposit structure for membership of NSE is presented in Table 4.1. |
| *Corporatisation No. of Brokers and Sub brokers* | The authorities have been encouraging corporatisation of the broking industry. As a result, a number of brokers-proprietor firms and partnership firms have converted themselves into corporates. As of end March 2009, 4,079 brokers, accounting for 47.15% of total brokers have become corporate entities. Amongst those registered with NSE around 90.51 % of them were corporatised, followed by BSE with 81.81 % corporate brokers.<br>As at end-March 2009, there were 62,471 sub-brokers registered with SEBI, as compared with 43,874 sub-brokers as at end of previous year. NSE and BSE together constituted 98.26% of the total sub-brokers. |

**Listing of Securities**

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

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

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

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| *Key provisions of Various Acts governing the listing of securities* | • The Companies Act, 1956 requires a company intending to issue securities to the public to seek permission from one or more recognised stock exchanges for its listing. If the permission is not granted by all the stock exchanges before the expiry of 10 weeks from the closure of the issue, then the allotment of securities would be void. Also, a company may prefer to appeal against refusal of a stock exchange to list its securities to the Securities Appellate Tribunal (SAT). The prospectus should state the names of the stock exchanges, where the securities are proposed to be listed.<br>• The byelaws of the exchanges stipulates norms for the listing of securities. All listed companies are under obligation to comply with the conditions of listing agreement with the stock exchange where their securities are listed.<br>• According to the Securities Contract Regulation Act 1956, for any security to be listed on any recognized stock exchange, it has to fulfill the eligibility criteria and comply with the regulations made by SEBI.<br>• The Securities Contract (Regulation) Act, 1956 prescribe requirements with respect to the listing of securities on a recognised stock exchange and empowers SEBI to waive or relax the strict enforcement of any or all of requirements with respect to listing prescribed by these rules. |

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| | • The listing agreement states that the issuer should agree to adhere to the agreement of listing, except for a written permission from SEBI. As a precondition for the security to remain listed, an issuer should comply with the conditions as may be prescribed by the Exchange. Further, the securities are listed on the Exchange at its discretion, as the Exchange has the right to suspend or remove from the list the said securities at any time and for any reason, which it considers appropriate.<br>As per SEBI provision, the basic norms of listing on the stock exchanges should be uniform across the exchanges. However, the stock exchanges can prescribe additional norms over and above the minimum, which should be part of their byelaws. SEBI has been issuing guidelines/ circulars prescribing certain norms to be included in the listing agreement and to be complied by the companies. The listing requirements for companies in the CM segment of NSE are presented in ( Table 4-2). |
| *Listing Fees in the CM Segment* | The stock exchanges levy listing fees on the companies, whose securities are listed with them. The listing fee has two components-initial fee and annual fee. While, initial fee is a fixed amount, the annual fee varies depending upon the size of the company. as per the below table. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than Rs.500 crores would have to pay minimum fees of Rs.3,75,000 and an additional listing fees of Rs.2,500 for every increase of Rs.5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc. For Companies who have a paid up share, bond and/ or debenture and/or debt capital, etc. of more than Rs.1,000 crores would have to pay minimum fees of Rs.6,30,000 and an additional listing fees of Rs.2,750 for every increase of Rs.5 crores or part thereof in the paid up share, bond and/ or debenture and/or debt capital, etc. The detailed structure of listing fee is as below: |

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

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| **Internet trading** | SEBI has allowed the use of internet as an order routing system for communicating investors' orders to the exchanges through the registered brokers. These brokers should obtain the permission from their respective stock exchanges. In February 2000, NSE became the first exchange in the country to provide web-based access to investors to trade directly on the Exchange followed by BSE in March 2001. The orders originating from the PCs of investors are routed through the internet to the trading terminals of the designated brokers with whom they have relations and further to the exchange. After these orders are matched, the transaction is executed and the investors get the confirmation directly on their PCs.<br>At the end of March 2009, a total number of 349 members were permitted to allow investor's web based access to NSE's trading system. The members of the exchange in turn had registered 5,627,789 clients for web based access as on March 31, 2009. During the year 2008-09, 10.58% of the trading value in the Capital Market segment (Rs. 582,070 - US $ 11,424 million) was routed and executed through the internet. |
| **Trading Regulations**<br><br>*Insider Trading* | Insider Trading is considered as an offence and is hence prohibited as per the SEBI (Prohibition of Insider Trading) Regulations, 1992. The same was amended in the year 2003. The act prohibits an insider from dealing (on his behalf or on behalf of any other person) in securities of a company listed on any stock exchange, when in possession of any unpublished price sensitive information. Further, it has also prohibited any insider from communicating, counseling or procuring directly or indirectly any unpublished price sensitive information to any person who while in possession of such unpublished price sensitive information should not deal in securities. Price sensitive information means any information which is related directly or indirectly to a company and which if published is likely to materially affect the price of securities of a company. It includes information like periodical financial results of the company, intended declaration of dividends (both interim and final), issue of securities or buy-back of securities, any major expansion plans or execution of new projects, amalgamation, merger or takeovers, disposal of the whole or substantial part of the undertaking and significant changes in policies, plans or operations of the company. SEBI is empowered to investigate on the basis of any complaint received from the investors, intermediaries or any other person on any matter having a bearing on the allegations of insider trading. |
| *Unfair Trade Practices* | The SEBI (Prohibition of Fraudulent and Unfair Trade Practices relating to the Securities Market) Regulations 2003 enable SEBI to investigate into cases of market manipulation and fraudulent and unfair trade practices. The regulations specifically prohibit fraudulent dealings, market manipulations, misleading statements to induce sale or purchase of securities, unfair trade practices relating to securities. When SEBI has reasonable ground to believe that the transaction in securities are being dealt with in a manner detrimental to the investor or the securities market in violation of these regulations and when any intermediary has violated the rules and regulations under the act, then it can order to investigate the affairs of such intermediary or persons associated with the securities market. Based on the report of the investigating officer, SEBI can initiate action for suspension or cancellation of registration of an intermediary. |

**Takeovers**

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

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| *The SEBI (Substantial Acquisition of shares and Takeover) Regulations, 1997* | In context of this regulation '**acquirer**' is defined as a person who directly or indirectly acquires or agrees to acquire shares or voting rights in the target company or acquires or agrees to acquires '**control**' over the target company, either by himself or with any person acting in concert with the acquirer. The term '**control**' includes right to appoint majority of the directors or to control the management or policy decisions exercisable by any person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner. This implies that where there are two or more persons in control over the target company, the cesser of any one of such persons from such control should not be deemed to be in control of management. |
| *Chapter II 'Disclosures of shareholding and control in a listed company' of the SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997* | Certain categories of persons are required to disclose their shareholding and/or control in a listed company to that company. Such companies, in turn, are required to disclose such details to the stock exchanges where shares of the company are listed. In case of acquisition of 5 percent and more share or voting rights of a company, an acquirer would have to disclose at every stage the aggregate of his shareholding or voting rights in that company to the company and to the stock exchange where shares of the target company are listed. No acquirer either by himself or through/with persons acting in concert with him should acquire, additional shares or voting rights unless such acquirer makes a public announcement to acquire shares in accordance with the regulations. As per the regulations, the mandatory public offer is triggered on:<br>Limit of 15 percent or more but less than 55 percent of the shares or voting rights in a company.<br>Limit of 55 percent or more but less than 75 percent of the shares. In a case where the target company had obtained listing of its shares by making an offer of at least ten percent of issue size to the public in terms of the relevant clause mentioned in the Securities Contracts (Regulations) Rules 1957 or in terms of any relaxation granted from strict enforcement of the said rule, then the limit would be 90 percent instead of 75 percent. Further, if the acquire (holding 55 % more but less than 75 percent) is desirous of consolidating his holding while ensuring that the public shareholding in the target company does not fall below the minimum level permitted in the listing agreement, he may do so only by making a public announcement in accordance with these regulations.<br>Irrespective of whether or not there has been any acquisition of shares or voting rights in a company, no acquirer should acquire control over the target company, unless such person makes a public announcement to acquire shares and acquires such shares in accordance with the regulations.<br>The regulations give enough scope for existing shareholders to consolidate and also cover the scenario of indirect acquisition of control. The applications for takeovers are scrutinised by the Takeover Panel constituted by the SEBI. |
| **Buy Back** | Buy Back is done by the company with the purpose to improve liquidity in its shares and enhance the shareholders' wealth. Under the SEBI (Buy Back of Securities) Regulations, 1998, a company is permitted to buy back its shares or other specified securities by any of the following methods:-<br>• From the existing security holders on a proportionate basis through the tender offer<br>• From the open market through (i) book building process (ii) stock exchange<br>• From odd-lot holders.<br>The company has to disclose the pre and post-buy back holding of the promoters. To ensure completion of the buy back process speedily, the regulations have stipulated time limit for each step. For example in the cases of purchases through tender offer an offer for buy back should not remain open for more than 30 days. The company should complete the verifications of the offers received within 15 days of the closure of the offer and shares or other specified securities. The payment for accepted securities has to be made within 7 days of the completion of verification and bought back shares have to be extinguished and physically destroyed within 7 days of the date of the payment. Further, the company making an offer for buy back will have to open an escrow account on the same lines as provided in takeover regulations. |

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| **Circuit Breakers** | Volatility in stock prices is a cause of concern for both the policy makers and the investors. To curb excessive volatility, SEBI has prescribed a system of circuit breakers. The circuit breakers bring about a nation-wide coordinated halt in trading on all the equity and equity derivatives markets. An index based market-wide circuit breaker system applies at three stages of the index movement either way at 10%, 15% and 20%. The breakers are triggered by movement of either Nifty 50 or Sensex, whichever is breached earlier (discussed in details in chapter 5). Further, the NSE views entries of non-genuine orders with utmost seriousness as this has market-wide repercussion. It may suo-moto cancel the orders in the absence of any immediate confirmation from the members that these orders are genuine or for any other reason as it may deem fit. As an additional measure of safety, individual scrip-wise price bands has been fixed as below:<br>• Daily price bands of 2% (either way) on a set of specified securities,<br>• Daily price bands of 5% (either way) on a set of specified securities,<br>• Price bands of 20% (either way) on all remaining securities (including debentures, warrants, preference shares etc which are traded on CM segment of NSE),<br>• Daily price bands of 10% (either way) on specified securities,<br>• No price bands are applicable on scrips on which derivative products are available or on scrips included in indices on which derivatives products are available.<br>For auction market the price bands of 20% are applicable. In order to prevent members from entering orders at non-genuine prices in these securities, the Exchange has fixed operating range of 20% for such securities. |
| **Demat Trading** | A depository holds securities in dematerialized form. It maintains ownership records of securities in a book entry form, and also effects transfer of ownership through book entry. Though, the investors have a right to hold securities in either physical or demat form, SEBI has made it compulsory that trading in securities should be only in dematerialised form. This was initially introduced for institutional investors and was later extended to all investors. Starting with twelve scrips on January 15, 1998, all investors are required to mandatorily trade in dematerialized form. The companies, which fail to establish connectivity with both the depositories on the scheduled date as announced by SEBI, then their securities are traded on the 'trade for trade' settlement window of the exchanges. |
| *Statistics: NSDL & CDSL* | At the end of March 2009, the number of companies connected to NSDL and CDSL were 7,801 and 6,213 respectively. The number of dematerialised securities have increased from 286.72 billion at the end of March 2008 to 353.09 billion at the end of March 2009. However, during the same period the value of dematerialised securities has decreased by 28.5 % from Rs. 49,670 billion to Rs. 35,500 billion.<br>Since the introduction of the depository system, dematerialisation has progressed at a fast pace and has gained acceptance amongst the market participants. All actively traded scrips are held, traded and settled in demat form. The details of progress in dematerialisation in two depositories, *viz*. NSDL and CDSL, as at the end of March 2009 and June 2009 are presented in (Table 4-3 A).<br>The Depositories in India provide depository services to investors through Depository Participants (DPs). The Depositories do not charge the investors directly, but charge their DPs who in turn charge the clients. DPs are free to have their own charge structure for their clients. However, as per SEBI directive, DPs cannot charge investors towards opening of a Beneficiary Owner (BO) account (except statutory charges), credit of securities into BO account and custody charges. It may be added that the depositories have been reducing its charges along with the growth in volumes. The charges levied on DPs by NSDL and CDSL are presented in (Table 4-3 B). |

| | |
|---|---|
| **Charges for *Services*** | As per SEBI Regulations, every stockbroker, on the basis of his total turnover, is required to pay annual turnover charges, which are to be collected by the stock exchanges. In order to share the benefits of efficiency, NSE has been reducing the transaction charges over a period of time.<br>A member was required to pay the exchange, transaction charges at the rate of 0.0035% (Rs. 3.5 per Rs. 1 lakh) of the turnover till September, 2009. NSE has, with effect from October, 2009, changed the transaction charges structure to a slab based one, as below: |

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

| | |
|---|---|
| | Trading members are also required to pay securities transaction tax (STT) on all delivery based transaction at the rate of 0.125% (payable by both buyer and seller) and in case of non-delivery transactions at the rate of 0.025% for equities payable by the seller only).<br>The maximum brokerage chargeable by trading member in respect of trades effected in the securities admitted to dealing on the CM segment of the Exchange is fixed at 2.5% of the contract price, exclusive of statutory levies like, securities transaction tax, SEBI turnover fee, service tax and stamp duty. However, the brokerage charges as low as 0.15% are also observed in the Market.<br>As per the Finance Bill, 2008 Stock Exchanges and Clearing House Services are being charged a service tax on services rendered by them in relation to assisting, regulating or controlling the business of buying, selling or dealing in securities and including services provided in relation to trading, processing, clearing and settlement of transactions in securities, goods and forward contracts w.e.f 16th May, 2008. |
| **Institutional Trades** | Trades by Mutual Funds (MFs) and Foreign Institutional Investors are termed as Institutional trades. Transactions by MFs in the secondary market are governed by SEBI (Mutual Funds) Regulations, 1996. A MF under all its schemes is not allowed to own more than 10% of any company's paid up capital. They are allowed to do only 'delivery-based' transactions. With effect from 21st April, 2008 a MF may engage in short selling of securities in accordance with the framework relating to short selling and securities lending and borrowing specified by SEBI. A MF cannot invest more than 10% of the NAV of a particular scheme in the equity shares or equity related instruments of a single company.<br>The investments by FIIs are governed by the rules and regulations of the RBI and the SEBI. As per the RBI guidelines, total holding of each FII/sub-accounts should not exceed 10 % of the total paid up capital or paid up value of each series of convertible debentures. Further total holding of all the FIIs/sub- accounts put together should not exceed 24 % of the paid up capital or paid up value of each series of convertible debentures. This limit of 24 % can be increased to the sectoral cap / statutory limit as applicable to the Indian company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body. |

**Index Services**

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

NSE and CRISIL, have jointly promoted the India Index Services & Products Limited (IISL). The IISL provides stock index services by developing and maintaining an array of indices for stock prices. IISL maintains a number of equity indices comprising broad-based benchmark indices, sectoral indices and customised indices. They are maintained professionally to ensure that it continues to be a consistent benchmark of the equity markets, which involves inclusion and exclusion of stocks in the index, day-to-day tracking and giving effect to corporate actions on individual stocks.

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

## NSE Indices

| Indices | Particulars | Base date of the Index |
|---|---|---|
| S&P CNX NIFTY (NIFTY 50) | Blue chip index of NSE which is most popular and widely used stock market indicator in the country. It consists of diversified 50 stocks index accounting for 22 sectors of the economy and accounts for 65.35 % of total market capitalisation of CM segment of NSE as at end-March 2009. | November 3, 1995 |
| CNX Nifty Junior | This index contains the next rung of liquid securities after Nifty 50. The maintenance of the Nifty 50 and the CNX Nifty Junior are synchronised so that the two indices will always be disjoint sets. This index accounts for 9.89 % of the market capitalization of CM segment of NSE as at end March 2009. | November 3, 1996 |
| CNX 100 | This is a diversified 100 stock index accounting for 35 sector of the economy, which is a combination of the Nifty 50 and CNX Nifty Junior. | January 1, 2003 |
| S&P CNX 500 | This is India's first broad-based benchmark of the Indian capital market and helps in comparing portfolio returns vis-a-vis market returns. It represents about 95.11 % of total market capitalization and about 89.72% of the total turnover on the NSE as on March 31, 2009. Industry weightages in the index reflect the industry weightages in the market. For e.g. if the banking sector has a 5% weightage in the universe of stocks traded on NSE, banking stocks in the index would also have an approximate representation of 5% in the index. | 1994 |
| Nifty Midcap 50 and CNX Midcap | The primary objective of the Nifty Midcap 50 Index and CNX Midcap is to capture the movement of the midcap segment of the market segment which is being increasingly perceived as an attractive investment segment with high growth potential. | January 1, 2004<br><br>January 1, 2003 |
| S&P CNX Defty | S&P CNX Defty is Nifty 50, measured in dollars which is used as an instrument for measuring returns by institutional investor and off-shore fund enterprise with an equity exposure in India. | November 3, 1995 |

BSE too has a number of sectoral indices such as BSE Auto, BSE Bankex, BSE Capital Goods, BSE IT etc.

**Table 4-1: Eligibility Criteria Deposit Structure for Trading Membership**

**INDIVIDUALS / PARTNERSHIP FIRMS**

(Amount in Rs. lakh)

| Particulars | CM | CM and F&O | WDM | CM and WDM | CM,WDM and F&O |
|---|---|---|---|---|---|
| *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)*<br><br>*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)*<br><br>*300(Membership in WDM segment, CM segment and Trading and Clearing membership in F&O segment)* |
| Interest Free Security Deposit (IFSD) with NSEIL | 85 | 110 | 150 | 235 | 260 |
| Interest Free Security Deposit (IFSD) with NSCCL | 15 | 15 * | NIL | 15 | 15 * |
| Collateral Security Deposit (CSD) with NSCCL | 25 | 25** | NIL | 25 | 25** |
| Annual Subscription | 1 | 1 | 1 | 2 | 2 |
| Advance Minimum Transaction Charges for Futures Segment | NIL | 1 | NIL | NIL | 1 |
| Education | Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Capital Market Module of NCFM. | Two directors should be HSC. Dealers should also have passed SEBI approved certification test for Derivatives and Capital Market Module of NCFM. | Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM. | Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM & Capital Market Module of NCFM. | Two directors should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM, Capital Market Module of NCFM & SEBI approved certification test for Derivatives. |
| Experience | --------------Two year's experience in securities market---------------------- | | | | |
| Track Record | The Directors should not be defaulters on any stock exchange. They must not be debarred by SEBI for being associated with capital market as intermediaries They must be engaged solely in the business of securities and must not be engaged in any fund-based activity. | | | | |

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

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

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

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

*Contd.*

*Contd.*

***Requirements for Professional Clearing Memberhip***

(All values in Rs. lakh)

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

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

**INDIVIDUALS/PARTNERSHIP FIRMS**

(Amount in Rs. Lakh)

| Particulars/ Segments | 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)<br>100 (Membership in CM segment and Trading and Self clearing membership in the F&O segment)<br>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)<br>300 (Membership in WDM segment,CM segment and Trading and clearing membership on F&O segment) |
| Interest Free Security Deposit (IFSD) with NSEIL | 26.5 | 51.5 | 150 | 176.5 | 201.5 |
| Interest Free Security Deposit (IFSD) with NSCCL | 6 | 6 * | NIL | 6 | 6* |
| Collateral Security Deposit (CSD) with NSCCL | 17.5 | 17.5 ** | NIL | 17.5 | 17.5 ** |
| Education | Proprietor / two partners should be HSC. Dealers should also have passed SEBI approved certification test for Capital Market Module of NCFM. | Proprietor / two partners should be HSC. Dealers should also have passed Capital Market Module of NCFM and SEBI approved certification test for Derivatives | Proprietor / two partners should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM. | Proprietor / two partners should be HSC. Dealers should also have passed FIMMDA-NSE Debt Market (Basic Module) of NCFM.& Capital Market Module of NCFM. | Proprietor / two partners 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 Proprietor / Partners should not be defaulters on any stock exchange. He/they must not be debarred by SEBI for being associated with capital market as intermediaries. He/they must be engaged solely in the business of securities and must not be engaged in any fund-based activity. | | | | |

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

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

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

**CURRENCY DERIVATIVES CORPORATES, INDIVIDUALS AND FIRMS**

(Amount in Rs. Lakh)

| Particulars | NSE Members | | NCDEX Members | | New Applicants | | |
|---|---|---|---|---|---|---|---|
| | Trading Membership | Trading cum Clearing Membership | Trading Membership | Trading cum Clearing Membership | Trading Membership | Trading cum Clearing Membership | Professional Clearing Membership |
| Networth | 100 | 1000 | 100 | 1000 | 100 | 1000 | 1000 |
| Interest Free Security Deposit with NSEIL | 2 | 2 | 2 | 2 | 2 | 2 | - |
| Collateral Security Deposit with NSEIL | 8 | 8 | 10.5 | 13 | 13 | 18 | - |
| Interest Free Security Deposit with NSCCL | - | 25 | - | 25 | - | 25 | 25 |
| Collateral Security Deposit with NSCCL | - | 25 | - | 25 | - | 25 | 25 |
| Education | Proprietor/Two partners/Two directors should be HSC. Dealers should also have passed SEBI approved National Institute of Securities Markets (NISM) Series I – Currency Derivatives Certification Examination | | | | | | |
| Experience | --------------Two year's experience in securities market---------------------- | | | | | | |
| Track Record | Proprietor/Partners/Directors should not be defaulters on any stock exchange. He/they must not be debarred by SEBI for being associated with capital market as intermediaries. He/they must be engaged solely in the business of securities and must not be engaged in any fund-based activity. | | | | | | |

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

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

In addition to the individuals, corporates and partnership firms, Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' 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 minimum prudential requirements of minimum net worth of Rs. 500 crores, minimum CRAR of 10 per cent, net NPA not exceeding 3 per cent and net profit should have been made for last 3 years.

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

### Table 4-2: 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 $\geq$ Rs. 10 cr. and MC $\geq$ Rs. 25 cr. | PUEC $\geq$ Rs. 10 cr. and MC $\geq$ Rs. 25 cr. OR<br>PUEC $\geq$ Rs. 25 cr. OR<br>MC $\geq$ Rs. 50 cr. OR<br>The company shall have a net worth of not less than Rs.50 crores in each of the preceding financial years. |

*Contd.*

*Contd.*

| Criteria | Initial Public Offerings (IPOs) | Companies listed on other exchanges |
|---|---|---|
| **Company/ Promoter's Track Record** | Atleast 3 years track record of either<br>a) the applicant seeking listing OR<br>b) the promoters/promoting company incorporated in or outside India OR<br>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<br>a) the applicant seeking listing; OR<br>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 Rs.50 crores OR The applicant has distributable profits in at least two out of the last three financial years. |
| **Listing** | -- | Listed on any other stock exchange for at least last three years OR listed on the exchange having nationwide trading terminals for at least one year. |
| **Other Requirements** | (a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs.<br>(b) Satisfactory redressal mechanism for investor grievances,<br>(c) distribution of shareholding and<br>(d) details of llitigation record in past 3 years<br>(e) Track record of Directors of the Company | (a) No disciplinary action by other stock exchanges/regulatory authority in past 3 yrs.<br>(b) Satisfactory redressal mechanism for investor grievances,<br>(c) distribution of shareholding and<br>(d) details of llitigation record in past 3 years<br>(e) Track record of Directors of the Company<br>(f) Change in control of a Company/Utilisation of funds raised from public |

**Note:**

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

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

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

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

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

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

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

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

**Table 4-3A: Progress of Dematerialisation: NSDL & CDSL as at the end of the period.**

| Parameters of Progress | NSDL | | | | CDSL | | | |
|---|---|---|---|---|---|---|---|---|
| | March-08 | June-08 | March-09 | June-09 | March-08 | June-08 | March-09 | June-09 |
| Companies - Agreement signed | 7,354 | 7,530 | 7,801 | 7,800 | 5,943 | 6,025 | 6,213 | 6,275 |
| Companies - Available for Demat | 7,354 | 7,530 | 7,801 | 7,800 | 5,943 | 6,025 | 6,213 | 6,275 |
| Market Cap. of Companies available (Rs.bn.) | 52,197 | 44,387 | 31,103 | 47,695 | 51,626 | 44,024 | 31,437 | 48,051 |
| Number of Depository Participants | 251 | 258 | 275 | 280 | 420 | 433 | 468 | 475 |
| Number of DP Locations | 7,204 | 7,556 | 8,777 | 9,340 | 6,372 | 6,498 | 6,934 | 6,942 |
| No. of Investor Accounts | 9,372,335 | 9,563,784 | 9,685,568 | 9,857,785 | 4,798,222 | 5,135,602 | 5,527,479 | 5,715,518 |
| Demat Quantity (mn.) | 236,897 | 250,343 | 282,270 | 296,779 | 49,820 | 63,100 | 70,820 | 70,670 |
| Demat Value (Rs. bn.) | 43,770 | 39,125 | 31,066 | 42,572 | 5,900 | 5,646 | 4,397 | 6,878 |

*Source: NSDL & CDSL.*

**Table 4-3B: Service Charges levied by the Depositories end of June 2008**

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

*Source: NSDL & CDSL.*

# Market Outcome

## Turnover and Market Capitalisation - Growth

*Turnover*

Trading volumes in the equity segments of the stock exchanges have witnessed a phenomenal growth over the last few years. The trading volumes saw a considerable increase in late 1990's.The compound annual growth rate of trading volumes on all stock exchanges taken together has been 8.91% over the period 2001-02 to 2008-09.

NSE and BSE, were the only two stock exchange which reported significant trading volumes. With the exception of Calcutta and Uttar Pradesh Stock Exchange, all other stock exchanges did not report any trading volumes during 2008-09 and 2009-10 (Apr-June). NSE consolidated its position as the market leader by contributing 71.43% of the total turnover in India in 2008-09 and 75.03% in first quarter of 2009-10 (Table 4-4). Since its inception in 1994, NSE has emerged as the favoured exchange among trading members. The consistent increase in popularity of NSE is clearly evident from Annexure 4-2, which presents the business growth of CM segment of NSE. Not only in the national arena, but also in the international markets, NSE has been successful in creating a niche for itself.

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

| Stock Exchanges | | Capital Market Turnover | | | | | | Share in Turnover (%) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2007-08 | | 2008-09 | | 2009-10 (Apr-June 09) | | | | |
| | | (Rs. mn.) | (US $ million) | (Rs. mn.) | (US $ million) | (Rs. mn.) | (US $ million) | 2007-08 | 2008-09 | 2009-10 (Apr-June 09) |
| 1 | NSE | 35,510,380 | 888,426 | 27,520,230 | 540,142 | 11,316,710 | 236,405 | 69.21 | 71.43 | 75.03 |
| 2 | BSE | 15,788,570 | 395,011 | 11,000,740 | 215,912 | 3,766,790 | 78,688 | 30.77 | 28.55 | 24.97 |
| 3 | Calcutta | 4,460 | 112 | 3,930 | 77 | 0 | 0 | 0.01 | 0.01 | 0 |
| 4 | Uttar Pradesh | 4,750 | 119 | 890 | 17 | 50 | 1.04 | 0.01 | 0.0023 | 0.0003 |
| 5 | Ahmedabad | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | Delhi | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | Pune | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Ludhiana | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | Bangalore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | ICSE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | Madras | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | Madhya Pradesh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | Vadodara | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | OTCEI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | Gauhati | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Cochin | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | Bhubaneshwar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | Coimbatore | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | Jaipur | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Total** | **51,308,160** | **1,283,667** | **38,525,790** | **756,149** | **15,083,550** | **315,094** | **100** | **100** | **100** |

***Source:* SEBI**

Looking at trends in turnover in NSE and BSE over 2007-08 to latest first quarter of 2009-10 (Table 4-5), one finds that 2008-09 saw fall in turnover on the exchanges mainly on account of weak sentiments following the global financial crisis. The turnover on the NSE fell by 22.5% in 2008-09 compared with 2007-08 and that on the BSE it fell by 30.3% over the same period. The average daily turnover on the NSE stood at US$ 2 bn in 2008-09 compared to USD 3.5 bn in 2007-08.

According to the WFE Statistics, in terms of number of trades in equity shares, NSE ranks 3rd with 13,68,050 thousands of trades as end December 2008 and 4th with 782,027 thousands of trades during January 2009 to June 2009. The trades details of the top ranked stock exchanges are presented in (Table:4-6).

Table 4-5: Stock Market Indicators - Monthly Trends on NSE and BSE

| Month | Turnover | | | | Average Daily Turnover | | | | Market Capitalisation (end of period) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NSE | | BSE | | NSE | | BSE | | NSE | | BSE | |
| | Rs. mn | US $ mn | Rs. mn | US $ mn | Rs.mn | US $ mn | Rs.mn | US $ mn | Rs.mn | US $ mn | Rs.mn | US $ mn |
| Apr-07 | 1,685,665 | 42,173 | 786,928 | 19,688 | 84,283 | 2,109 | 39,346 | 984 | 36,503,677 | 913,277 | 38,281,770 | 957,763 |
| May-07 | 2,075,852 | 51,935 | 988,207 | 24,724 | 98,850 | 2,473 | 47,057 | 1,177 | 38,980,783 | 975,251 | 40,745,500 | 1,019,402 |
| Jun-07 | 1,936,482 | 48,448 | 952,684 | 23,835 | 92,213 | 2,307 | 45,366 | 1,135 | 39,783,807 | 995,342 | 41,682,710 | 1,042,850 |
| Jul-07 | 2,672,269 | 66,857 | 1,250,537 | 31,287 | 121,467 | 3,039 | 56,843 | 1,422 | 43,175,715 | 1,080,203 | 45,297,700 | 1,133,292 |
| Aug-07 | 2,312,406 | 57,854 | 1,060,414 | 26,530 | 105,109 | 2,630 | 48,201 | 1,206 | 42,969,941 | 1,075,055 | 45,380,050 | 1,135,353 |
| Sep-07 | 2,660,497 | 66,562 | 1,231,438 | 30,809 | 133,025 | 3,328 | 61,572 | 1,540 | 48,865,608 | 1,222,557 | 52,029,530 | 1,301,715 |
| Oct-07 | 4,555,894 | 113,983 | 1,990,887 | 49,810 | 207,086 | 5,181 | 90,495 | 2,264 | 57,222,271 | 1,431,630 | 63,320,920 | 1,584,211 |
| Nov-07 | 4,144,195 | 103,683 | 1,706,227 | 42,688 | 188,372 | 4,713 | 77,556 | 1,940 | 58,767,421 | 1,470,288 | 63,854,740 | 1,597,567 |
| Dec-07 | 3,663,854 | 91,665 | 1,635,157 | 40,910 | 192,834 | 4,824 | 86,061 | 2,153 | 65,432,719 | 1,637,046 | 71,699,830 | 1,793,841 |
| Jan-08 | 4,471,378 | 111,868 | 1,856,418 | 46,445 | 194,408 | 4,864 | 80,714 | 2,019 | 52,953,868 | 1,324,840 | 57,960,770 | 1,450,107 |
| Feb-08 | 2,801,764 | 70,097 | 1,219,746 | 30,517 | 133,417 | 3,338 | 58,083 | 1,453 | 54,199,423 | 1,356,003 | 58,878,460 | 1,473,066 |
| Mar-08 | 2,530,125 | 63,301 | 1,109,911 | 27,769 | 140,562 | 3,517 | 61,662 | 1,543 | 48,581,217 | 1,215,442 | 51,380,140 | 1,285,468 |
| **2007-08** | **35,510,382** | **888,426** | **15,788,552** | **395,010** | **141,476** | **3,540** | **62,903** | **1,574** | **48,581,217** | **1,215,442** | **51,380,140** | **1,285,468** |
| Apr-08 | 2,712,269 | 53,234 | 1,154,543 | 22,660 | 135,613 | 2,662 | 57,730 | 1,133 | 54,427,796 | 1,068,259 | 57,942,920 | 1,137,251 |
| May-08 | 2,779,229 | 54,548 | 1,216,701 | 23,880 | 138,961 | 2,727 | 60,840 | 1,194 | 50,988,729 | 1,000,760 | 54,288,780 | 1,065,531 |
| Jun-08 | 2,644,282 | 51,900 | 1,136,046 | 22,297 | 125,918 | 2,471 | 54,100 | 1,062 | 41,036,509 | 805,427 | 43,750,210 | 858,689 |
| Jul-08 | 2,958,162 | 58,060 | 1,239,160 | 24,321 | 128,620 | 2,524 | 53,880 | 1,058 | 44,324,270 | 869,956 | 47,325,440 | 928,860 |
| Aug-08 | 2,342,507 | 45,977 | 999,240 | 19,612 | 117,130 | 2,299 | 49,960 | 981 | 44,724,610 | 877,814 | 47,788,640 | 937,952 |
| Sep-08 | 2,622,612 | 51,474 | 1,080,900 | 21,215 | 124,890 | 2,451 | 51,470 | 1,010 | 39,001,850 | 765,493 | 41,653,870 | 817,544 |
| Oct-08 | 2,161,984 | 42,433 | 782,270 | 15,354 | 108,100 | 2,122 | 39,110 | 768 | 28,203,880 | 553,560 | 29,972,590 | 588,275 |
| Nov-08 | 1,731,228 | 33,979 | 636,940 | 12,501 | 96,180 | 1,888 | 35,390 | 695 | 26,532,810 | 520,762 | 28,189,640 | 553,280 |
| Dec-08 | 2,129,560 | 41,797 | 808,660 | 15,872 | 101,410 | 1,990 | 38,510 | 756 | 29,167,680 | 572,477 | 31,447,670 | 617,226 |
| Jan-09 | 1,911,835 | 37,524 | 705,100 | 13,839 | 95,590 | 1,876 | 35,250 | 692 | 27,987,070 | 549,305 | 29,995,250 | 588,719 |
| Feb-09 | 1,498,575 | 29,413 | 543,300 | 10,663 | 78,870 | 1,548 | 28,590 | 561 | 26,756,220 | 525,147 | 28,628,710 | 561,898 |
| Mar-09 | 2,027,985 | 39,803 | 697,890 | 13,698 | 101,400 | 1,990 | 34,890 | 685 | 28,961,940 | 568,438 | 30,860,750 | 605,707 |
| **2008-09** | **27,520,230** | **540,142** | **11,000,750** | **215,913** | **113,250** | **2,223** | **45,270** | **889** | **28,961,940** | **568,438** | **30,860,750** | **605,707** |
| Apr-09 | 2,666,960 | 55,713 | 889,430 | 18,580 | 156,880 | 3,277 | 52,320 | 1,093 | 33,750,250 | 705,040 | 35,869,780 | 749,316 |
| May-09 | 3,825,610 | 79,917 | 1,285,420 | 26,852 | 191,280 | 3,996 | 64,270 | 1,343 | 45,645,720 | 953,535 | 48,650,450 | 1,016,304 |
| Jun-09 | 4,824,140 | 100,776 | 1,591,950 | 33,256 | 219,280 | 4,581 | 72,360 | 1,512 | 44,325,960 | 925,965 | 47,499,340 | 992,257 |
| **April-June09** | **11,316,710** | **236,405** | **3,766,800** | **78,688** | **191,810** | **4,007** | **63,840** | **1,334** | **44,325,960** | **925,965** | **47,499,340** | **992,257** |

**Table 4-6: Total Numbers of Trades in Equity Shares (in thousands)**

| Exchange | End December 2008 | January 2009- June 2009 |
|---|---|---|
| Nasdaq | 3,779,392 | 2,240,242 |
| NYSE Euronext (US) | 4,050,573 | 1,641,340 |
| Shanghai Stock Exchange | 1,278,881 | 983,849 |
| NSE | 1,368,050 | 782,027 |
| Shenzhen SE | 658,047 | 561,010 |
| Korea Exchange | 641,754 | 449,920 |

*Source : WFE Reports*

### *Market capitalization*

As the trends in turnover showed a fall in 2008-09 compared to 2007-08, the same was the case with market capitalization for securities available for trading on the equity segment of NSE and BSE. After witnessing enormous growth during 2007-08 in comparison to 2006-07, 2008-09 saw a fall in market capitalization in 2008-09 over 2007-08 levels (Table 4-5). The market capitalization of NSE and BSE , which as at end March 2008 amounted to Rs. 48,581,217 million (US $ 1215 billion) and Rs. 51,380,140 million (US $ 1286 bn) respectively, were down to USD 568 bn on the NSE and USD 606 bn on the BSE as at end March 2009. As at end June 2009, there has been some increase in market capitalization, which stood at USD 926 bn for NSE and 992 bn for the BSE.

## World Traded Value and market capitalization

In 2008, United States ranked first in terms of traded value of US $ 36,467 bn and also in terms of market capitalization of US $ 11,738 bn. United Kingdom ranked second with the traded value of US $ 6,487 bn followed by Japan and then China. In terms of market capitalization, Japan was at second slot with a market capitalization of US $ 3,220 bn, followed by China. India ranked 13th both in terms of traded value (US $ 1050 bn) and market capitalization (US $ 645 bn) for 2008 (Table 4-7).

**Table 4-7: Top 20 countries by Value Traded and Market Capitalisation, 2008**

| Rank | Country | Total Value Traded (US$ millions) | Country | Total Market Capitalisation (US $ mn) |
|---|---|---|---|---|
| 1 | United States | 36,467,431 | United States | 11,737,646 |
| 2 | United Kingdom | 6,486,959 | Japan | 3,220,485 |
| 3 | Japan | 5,879,439 | **China** | 2,793,613 |
| 4 | **China** | 5,470,529 | United Kingdom | 1,851,954 |
| 5 | France | 3,265,494 | France | 1,492,327 |
| 6 | Germany | 3,105,288 | Honkong | 1,328,837 |
| 7 | Spain | 2,440,239 | **Russia** | 1,321,833 |
| 8 | Canada | 1,770,630 | Germany | 1,107,957 |
| 9 | Hongkong | 1,626,143 | Canada | 1,002,215 |
| 10 | Switzerland | 1,505,272 | Spain | 946,113 |
| 11 | **Korea** | 1,465,999 | Switzerland | 862,663 |
| 12 | Netherlands | 1,143,040 | Australia | 675,619 |
| 13 | **India** | 1,049,748 | **India** | 645,478 |
| 14 | Australia | 1,017,705 | **Brazil** | 589,384 |
| 15 | **Taiwan** | 944,023 | Italy | 520,855 |
| 16 | **Brazil** | 727,793 | **Korea** | 494,631 |
| 17 | Italy | 668,942 | **South Africa** | 491,282 |
| 18 | Sweden | 641,751 | Netherlands | 387,906 |
| 19 | **Russia** | 562,230 | **Taiwan** | 380,923 |
| 20 | **Saudi Arabia** | 524,717 | Sweden | 252,542 |

*Source:S&P Global Stock Markets Factbook 2008*

Emerging markets

Developed markets

The BRIC (Brazil, Russia, India, China) economies posted an year-on-year decrease of 24 % in the trading value from US $ 10,238 bn in 2007 to US $ 7,810 bn in 2008 (Table:4-8). China witnessed the highest fall of 30% in turnover over this period, followed by Russia and India. Brazil recorded a 24% year-on-year growth in turnover. This is a significant reversal of trend during 2006 and 2007 where the BRIC economies had recorded a phenomenal growth of 237% in turnover. This is largely explained by global financial crisis, which has been dealt with in detail in Chapter 1 earlier.

As regards market capitalization, there was a fall of 51% as at end December 2008 compared to end December 2007, as against a rise of 118% at end December 2007 compared with end December, 2006. The largest fall in market capitalization was in Brazil, followed by India and then Russia. Chinese markets witnessed an increase in market capitalization of over 100%.

The share of BRIC Economies in total traded value of emerging economies was marginally down in 2008 to 61.4% compared to 62.58% in 2007. Similarly, the share of BRIC economies in total world market capitalization decreased from 59.79% in 2007 to 57.67% in 2008.

**Table 4-8: Market capitalisation and Turnover of BRIC Economies**

| Country | Traded Value (in US $ millions) | | YoY Percentage Change | Market capitalisation (in US $ millions) | | YoY Percentage Change |
|---|---|---|---|---|---|---|
| | December-07 | December-08 | | December-07 | December-08 | |
| Brazil | 584,951 | 727,793 | 24.42 | 6,226,305 | 589,384 | -90.53 |
| Russia | 754,537 | 562,230 | -25.49 | 1,819,101 | 1,321,833 | -27.34 |
| India | 1,107,550 | 1,049,748 | -5.22 | 1,503,011 | 645,478 | -57.05 |
| China | 7,791,702 | 5,470,529 | -29.79 | 1,370,377 | 2,793,613 | 103.86 |
| **BRIC Economies** | **10,238,740** | **7,810,300** | **-23.72** | **10,918,794** | **5,350,308** | -51.00 |
| **Emerging Market Economies** | **16,361,131** | **12,720,872** | **-22.25** | **18,262,550** | **9,277,306** | -49.20 |
| **World Total** | **98,816,305** | **80,516,822** | **-18.52** | **64,563,414** | **35,811,160** | -44.53 |
| **Percentage share of BRIC Economies to** | | | | | | |
| *1) Total turnover/market capitalisation of Emerging Economies* | 62.58 | 61.40 | | 59.79 | 57.67 | |
| *2) Total turnover/market capitalisation of World* | 10.36 | 9.70 | | 16.91 | 14.94 | |

*Source:S&P Global Stock Markets Factbook 2008*

## Market Movements

The movement of few of the selected indices placed in table 4-9 brings out the trends witnessed in the Indian and foreign markets during 2007-08 and 2008-09. A global comparison of these selected indices, during these years, shows a varied kind of performance in 2007-08. However, during 2008-09, all these indices witnessed negative returns in the range of 30 to 40%.

The period March 09 to June 09 saw some revival in index returns. BSE Sensex saw a maximum return of 49%, followed by Nifty with an increase in return of 42%.

**Table 4-9: Movement of Select Indices in Indian & Foreign Markets**

| Region | Index - Country | 30-Mar-07 | 31-Mar-08 | 31-Mar-09 | 30-Jun-09 | Change during 2007-08 (%) | Change during 2008-09 (%) | Change during March 09- June 09 (%) |
|---|---|---|---|---|---|---|---|---|
| Ameri-cas | Dow Jones | 12354.35 | 12262.89 | 7608.92 | 8447.00 | -0.74 | -37.95 | 11.01 |
| | Nasdaq | 2421.64 | 2279.10 | 1528.59 | 1835.04 | -5.89 | -32.93 | 20.05 |
| Europe | FTSE 100- UK | 6308.00 | 5702.10 | 3926.10 | 4249.20 | -9.61 | -31.15 | 8.23 |
| | CAC- France | 5634.16 | 4707.07 | 2807.34 | 3140.44 | -16.45 | -40.36 | 11.87 |
| | Nifty 50 (S&P CNX Nifty)- India | 3821.55 | 4734.50 | 3020.95 | 4291.10 | 23.89 | -36.19 | 42.04 |
| Pacific | BSE Sensex- India | 13072.10 | 15644.44 | 9708.50 | 14493.84 | 19.68 | -37.94 | 49.29 |
| | Hang Seng- Hong Kong (China) | 19800.93 | 22849.20 | 13576.02 | 18378.73 | 15.39 | -40.58 | 35.38 |
| Asia | Nikkei- Japan | 17287.65 | 12525.54 | 8109.53 | 9958.44 | -27.55 | -35.26 | 22.80 |
| | TAI- Taiwan | 7884.41 | 8572.59 | 5210.84 | 6432.16 | 8.73 | -39.22 | 23.44 |

*Source:* NSE, BSE & Bloomberg.

Comparing the movement of the Nifty, Sensex and Nasdaq over 2008-09 (all indices rebased for 1 April 2008), as depicted in chart 4-1, it is seen that Nasdaq performed better than the Indian indices during most part of the year. The returns on the Nasdaq were negative 33% during 2008-09, while that on Nifty 50 and BSE Sensex were negative 36% and 38% respectively, over the same period (Chart 4-2).

**Chart 4-1: Movement of Nifty, Sensex and NASDAQ, 2008-09**

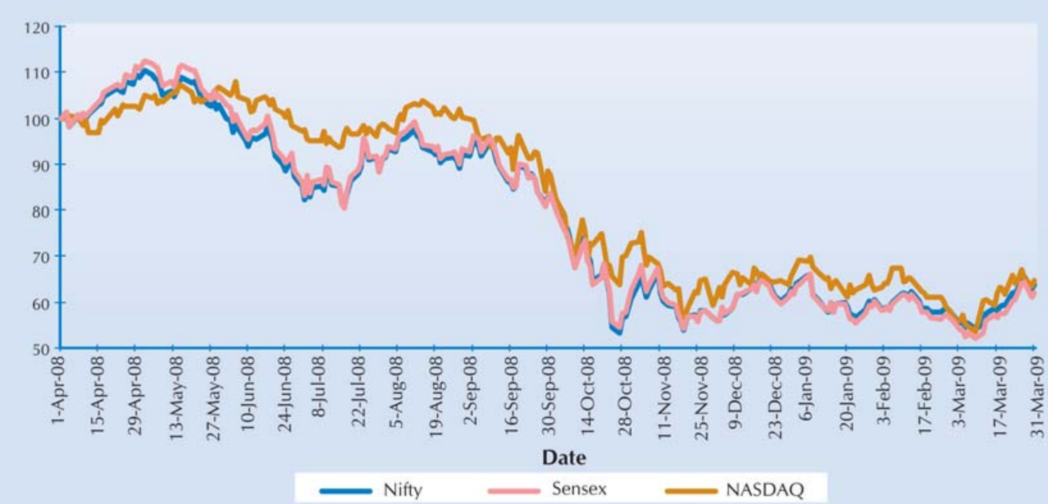
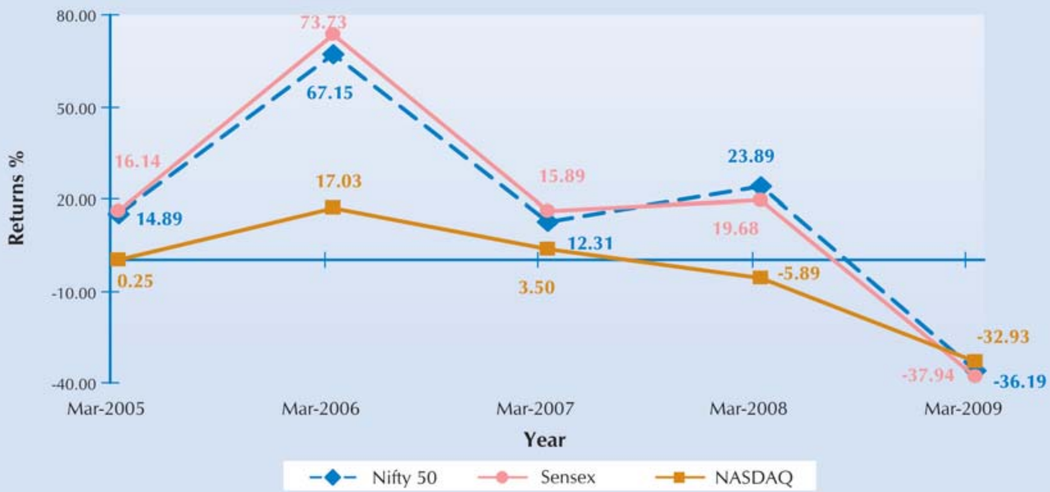


Chart 4-2: Stock Market Returns




## Volatility

The volatility of S&P CNX Nifty (Nifty 50) and Sensex since April 2008 is presented in Table 4-10. The stock markets witnessed maximum volatility during October, 2008, when the volatility in Nifty was 5.03% and that in Sensex was 5.19%. May 2009 was also a comparatively more volatile month with volatility in both the indices being around 4%. Volatility was lowest in the month of May 2008.

Volatility of S&P CNX Nifty (Nifty 50), Sensex and NASDAQ is also plotted in (Chart 4-3). It can be observed that the S&P CNX Nifty and (Nifty 50) and Sensex indices were extremely volatile in comparison to the Nasdaq Composite for the months of April 2008 to August 2008. However, Nasdaq was more volatile than these Indian indices during September 2008 to March 2009. The trend in first quarter of 2009-10 shows the Indian indices were more volatile than the Nasdaq.

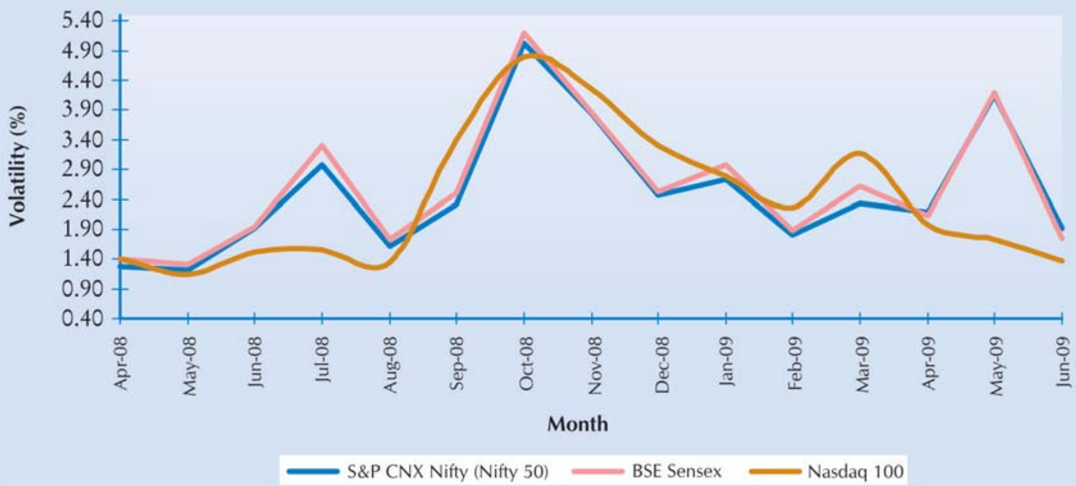
Table 4-10: Stock Market Index, Volatility and P/E Ratio: April 2008 to June 2009

| Month/Year | Nifty 50 | | | Sensex | | |
|---|---|---|---|---|---|---|
| | Index* | Volatility (%)** | P/E Ratio* | Index* | Volatility (%)** | P/E Ratio* |
| Apr-08 | 5,165.90 | 1.28 | 22.20 | 17,287.31 | 1.40 | 20.71 |
| May-08 | 4,870.10 | 1.21 | 20.74 | 16,415.57 | 1.31 | 20.66 |
| Jun-08 | 4,040.55 | 1.91 | 17.28 | 13,461.60 | 1.93 | 18.22 |
| Jul-08 | 4332.95 | 2.97 | 18.22 | 14355.75 | 3.30 | 17.06 |
| Aug-08 | 4360.00 | 1.61 | 18.43 | 14564.53 | 1.73 | 18.25 |
| Sep-08 | 3921.20 | 2.32 | 16.85 | 12860.43 | 2.50 | 17.36 |
| Oct-08 | 2885.60 | 5.03 | 12.57 | 9788.06 | 5.19 | 13.19 |
| Nov-08 | 2755.10 | 3.83 | 12.08 | 9092.72 | 3.85 | 11.88 |
| Dec-08 | 2959.15 | 2.46 | 12.97 | 9647.31 | 2.53 | 12.16 |
| Jan-09 | 2874.80 | 2.73 | 13.40 | 9424.24 | 2.97 | 12.21 |
| Feb-09 | 2763.65 | 1.81 | 13.12 | 8891.61 | 1.88 | 12.82 |
| Mar-09 | 3020.95 | 2.34 | 14.30 | 9708.50 | 2.61 | 12.68 |
| Apr-09 | 3473.95 | 2.18 | 16.53 | 11403.25 | 2.12 | 15.23 |
| May-09 | 4448.95 | 4.15 | 20.82 | 14625.25 | 4.20 | 17.88 |
| Jun-09 | 4291.10 | 1.92 | 19.97 | 14493.84 | 1.75 | 19.75 |

* 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 different sectoral indices for the period April 2008 to June 2009 varied widely table (4-12).

Chart 4-3: Stock Market Volatility, April 2008- June 2009




## Returns in Indian Market

The performance of Nifty 50 and various other indices as at the end of March 2009 and June 2009 of the last one month to 12 months is presented in table 4-11. Over a one year horizon, as at end March 2009, all indices have shown negative returns in the range of 35 to 50%, with largest fall in the Nifty Midcap 50 index. 6 month returns are also negative for all indices as at end March 2009. However, 1 month returns are positive, with largest increase in CNX IT index.

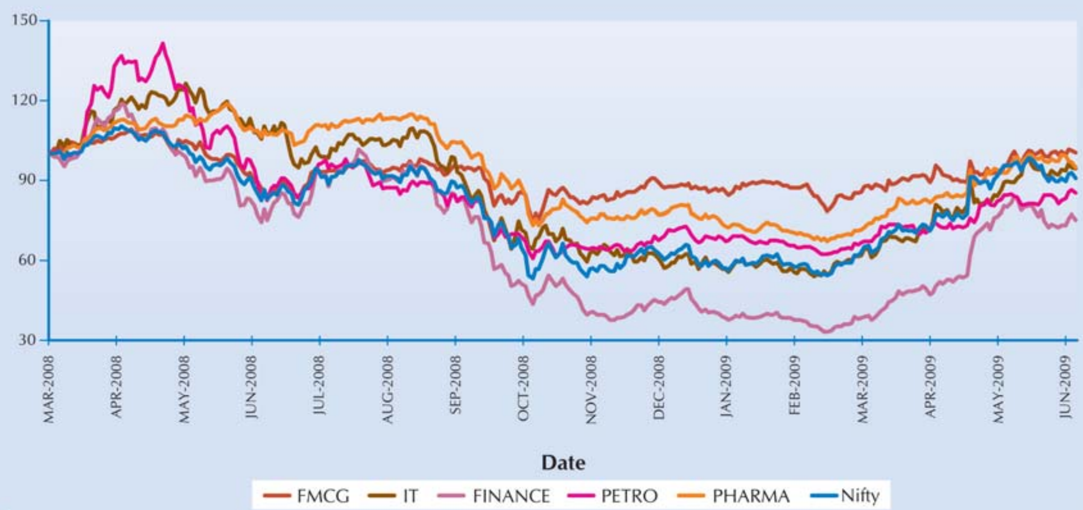
As at end June 2009, one year returns are positive, except for S&P CNX Defty and CNX IT indices. Bank Nifty index gave a return of 46% in June 2009 compared to June 2008. 3 months and 6 months returns are very high.

Table 4-11: Performance of Select Indices - NSE

| As at end March 2009- In per cent | | | | |
|---|---|---|---|---|
| | 1 month | 3 month | 6 month | 1 year |
| S&P CNX Nifty | 9.31 | 2.09 | -22.96 | -36.19 |
| S&P CNX 500 | 8.61 | -0.04 | -24.97 | -40.01 |
| S&P CNX Defty | 9.24 | -2.61 | -29.62 | -49.87 |
| CNX Nifty junior | 8.94 | -4.81 | -28.24 | -45.63 |
| Nifty Midcap 50 | 6.99 | -11.61 | -35.00 | -50.88 |
| CNX IT Index | 10.73 | 6.02 | -25.37 | -37.42 |
| Bank Nifty | 6.19 | -22.28 | -26.91 | -41.40 |
| As at end June 2009- In per cent | | | | |
| | 1 month | 3 month | 6 month | 1 year |
| S&P CNX Nifty | -3.55 | 42.04 | 45.01 | 6.2 |
| S&P CNX 500 | -3.08 | 51.2 | 51.14 | 8.31 |
| S&P CNX Defty | -5.01 | 50.54 | 46.61 | -4.91 |
| CNX Nifty junior | 4.29 | 79.75 | 71.1 | 25.05 |
| Nifty Midcap 50 | 1.31 | 76.84 | 56.32 | 5.28 |
| CNX IT Index | 9.09 | 50.84 | 59.93 | -12.55 |
| Bank Nifty | -1.04 | 77.56 | 46.73 | 45.99 |

The comparative performance of five major sectoral indices, *viz*. S&P CNX Petrochemicals Index, S&P CNX Finance Index, CNX FMCG Index, S&P CNX Pharma Index, and CNX IT Index, with that of Nifty 50 Index for the period April 2008-June 2009 is presented in (Chart 4-4). During the early part of financial 2008-09 the Petrochemicals Index was giving maximum returns. However, after May 2008, Pharma and FMCG indices were better performers in terms of returns. Except for Finance index, all other sectoral indices gave better returns than Nifty.

**Chart 4-4: Movement of Nifty 50 and Sectoral Indices, April 2008-June 2009**




The monthly closing prices of these sectoral indices are presented in (Table 4-12).

**Table 4-12: Performance of Sectoral Indices**

| Month/ Year | Monthly Closing Prices | | | | | | Average Daily Volatility (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S&P CNX Nifty (Nifty 50) | S&P CNX FMCG | S&P CNX IT | Finance | S&P CNX Petro-chemi-cals | S&P CNX Pharma-ceuti-cals | S&P CNX Nifty (Nifty 50) | S&P CNX FMCG | S&P CNX IT | Fi-nance | S&P CNX Petro-chemicals | S&P CNX Pharma-ceuticals |
| Apr-08 | 5165.90 | 6228.03 | 4357.65 | 5500.64 | 6333.56 | 5113.00 | 1.28 | 1.34 | 2.50 | 1.73 | 2.90 | -0.95 |
| May-08 | 4870.10 | 6091.79 | 4688.35 | 4653.99 | 5778.76 | 5213.16 | 1.21 | 1.42 | 1.66 | 2.00 | 2.37 | 0.93 |
| Jun-08 | 4040.55 | 5202.74 | 3999.40 | 3643.40 | 4163.30 | 4957.40 | 1.91 | 1.48 | 2.24 | 2.76 | 3.35 | 1.36 |
| Jul-08 | 4332.95 | 5444.04 | 3752.85 | 4317.65 | 4423.20 | 5006.18 | 2.97 | 2.26 | 3.02 | 3.96 | 3.06 | 1.56 |
| Aug-08 | 4360 | 5553.64 | 3926.8 | 4408.79 | 4029.94 | 5174.52 | 1.61 | 1.02 | 1.52 | 2.33 | 1.78 | 0.78 |
| Sep-08 | 3921.2 | 5450.79 | 3107.05 | 3594.15 | 3823.82 | 4513.27 | 2.32 | 1.33 | 2.84 | 3.54 | 2.14 | 1.44 |
| Oct-08 | 2885.6 | 4606.12 | 2686.95 | 2296.38 | 3040.26 | 3423.14 | 5.03 | 3.42 | 5.35 | 4.79 | 3.19 | 3.30 |
| Nov-08 | 2755.1 | 4916.84 | 2449.95 | 1866.82 | 3003.35 | 3514.20 | 3.83 | 1.93 | 3.38 | 3.57 | 1.90 | 1.70 |
| Dec-08 | 2959.15 | 5090.13 | 2187 | 2149.67 | 3329.40 | 3637.77 | 2.46 | 1.41 | 2.68 | 2.49 | 1.64 | 1.13 |
| Jan-09 | 2874.8 | 5164.24 | 2225.75 | 1888.89 | 3221.81 | 3295.81 | 2.73 | 1.29 | 2.90 | 2.87 | 1.58 | 1.39 |
| Feb-09 | 2763.65 | 5136.70 | 2094.1 | 1743.64 | 3037.50 | 3161.99 | 1.81 | 0.59 | 1.87 | 1.51 | 0.83 | 1.00 |
| Mar-09 | 3020.95 | 5134.66 | 2318.7 | 1824.86 | 3222.47 | 3465.02 | 2.34 | 1.86 | 2.51 | 2.53 | 1.13 | 1.27 |
| Apr-09 | 3473.95 | 5299.81 | 2770.85 | 2270.87 | 3443.65 | 3743.35 | 2.18 | 1.57 | 2.24 | 2.5 | 1.76 | 1.53 |
| May-09 | 4448.95 | 5410.16 | 3206.2 | 3674.26 | 3865.73 | 4220.82 | 4.15 | 2.68 | 4.37 | 3.93 | 2.10 | 2.98 |
| Jun-09 | 4291.1 | 5838.79 | 3497.65 | 3541.65 | 3967.54 | 4305.48 | 1.92 | 1.72 | 1.93 | 2.67 | 1.43 | 1.58 |

## Exchange Traded Funds

The first ETF in India, the "Nifty BeEs (Nifty Benchmark Exchange Traded Scheme) based on Nifty 50 was launched in December 2001 by Benchmark Mutual Fund. It is bought and sold like any other stock on NSE and has all characteristics of an index fund. As of March 2009, there were 14 ETFs listed on NSE. The ETF based on Sensex is SPICE (Sensex Prudential ICICI Exchange Traded Fund) which was launched by -Prudential ICICI. During the period April 2008 to June 2009 the total trading volume of the 14 ETFs listed on NSE was Rs. 44,005 million. (US $ 863.69 million). Details about ETFs are available in Chapter 3.

## Liquidity

Many listed securities on stock exchanges are not traded actively. The percentage of companies traded on BSE was quite low in comparison to that on NSE during the period April 2008 to June 2009. In June 2009 only 33.38% of companies traded on BSE while 98.91 % of companies traded on NSE. (Table 4-13)

**Table 4-13: Trading Frequency on NSE & BSE**

| Month/Year | NSE | | | BSE | | |
|---|---|---|---|---|---|---|
| | Companies Available for Trading* | Companies Traded | % of Traded to Available for Trading | Listed Securities * | Traded Securities | % of Traded to Listed Securities |
| Apr-08 | 1,244 | 1,240 | 99.68 | 7,740 | 2,740 | 35.40 |
| May-08 | 1,252 | 1,246 | 99.52 | 7,867 | 2,771 | 35.22 |
| Jun-08 | 1,262 | 1,256 | 99.52 | 7,885 | 2,716 | 34.45 |
| Jul-08 | 1,272 | 1,267 | 99.61 | 7,913 | 2,701 | 34.13 |
| Aug-08 | 1,278 | 1,274 | 99.69 | 7,702 | 2,758 | 35.81 |
| Sep-08 | 1,278 | 1,275 | 99.77 | 7,685 | 2,699 | 35.12 |
| Oct-08 | 1,282 | 1,277 | 99.61 | 7,705 | 2,599 | 33.73 |
| Nov-08 | 1,286 | 1,282 | 99.69 | 7,737 | 2,414 | 31.20 |
| Dec-08 | 1,283 | 1,282 | 99.92 | 7,727 | 2,565 | 33.20 |
| Jan-09 | 1,286 | 1,281 | 99.61 | 7,784 | 2,520 | 32.37 |
| Feb-09 | 1,284 | 1,280 | 99.69 | 7,779 | 2,481 | 31.89 |
| Mar-09 | 1,291 | 1,283 | 99.38 | 7,729 | 2,559 | 33.11 |
| Apr-09 | 1,329 | 1,266 | 96.99 | 7,771 | 2,557 | 32.90 |
| May-09 | 1,280 | 1,268 | 99.06 | 7,729 | 2,870 | 37.13 |
| Jun-09 | 1,282 | 1,268 | 98.91 | 8,098 | 2,703 | 33.38 |

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

**Table 4-14: Frequency Distribution of Companies Traded at NSE and BSE**

| Trading Frequency (Range of Days) | Trading Frequency of Listed Stocks | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2007-08 | | | | 2008-09 | | | |
| | BSE | | NSE | | BSE | | NSE | |
| | No. of Scrips Traded | Percentage of Total | No. of Scrips Traded | Percentage of Total | No. of Scrips Traded | Percentage of Total | No. of Scrips traded | Percentage of Total |
| Above 100 | 2,868 | 90.59 | 1,177 | 92.97 | 2,831 | 87.22 | 1,273 | 97.85 |
| 91-100 | 17 | 0.54 | 5 | 0.39 | 29 | 0.89 | 5 | 0.38 |
| 81-90 | 18 | 0.57 | 17 | 1.34 | 32 | 0.99 | 4 | 0.31 |
| 71-80 | 18 | 0.57 | 7 | 0.55 | 21 | 0.65 | 0 | 0.00 |
| 61-70 | 18 | 0.57 | 11 | 0.87 | 24 | 0.74 | 1 | 0.08 |
| 51-60 | 18 | 0.57 | 7 | 0.55 | 25 | 0.77 | 2 | 0.15 |
| 41-50 | 15 | 0.47 | 7 | 0.55 | 33 | 1.02 | 4 | 0.31 |
| 31-40 | 15 | 0.47 | 6 | 0.47 | 34 | 1.05 | 4 | 0.31 |
| 21-30 | 33 | 1.04 | 9 | 0.71 | 32 | 0.99 | 2 | 0.15 |
| 11-20 | 43 | 1.36 | 13 | 1.03 | 38 | 1.17 | 3 | 0.23 |
| 1-10 | 103 | 3.25 | 7 | 0.55 | 147 | 4.53 | 3 | 0.23 |
| **Total** | **3,166** | **100.00** | **1,266** | **100.00** | **3,246** | **100.00** | **1,301** | **100.00** |

*Source: SEBI*

The companies traded on BSE for more than 100 days during 2008-09 was 87.22% and that on NSE, was 97.85 % (Table 4-14). Trading took place for less than 100 days in case of 12.78 % of companies traded at BSE and 2.15 % for companies traded on NSE during the year.

## Takeovers

In 2008-09, there were 99 takeovers under open category involving Rs. 47,110 million (US $ 925 million) as against 114 takeovers involving Rs. 287,070 million (US $ 7,182 million) during the preceding year (Table 4-15). Under the exempted category there were 227 takeovers involving Rs 10,502 million (US $ 2,061 million) as against 232 takeovers involving Rs. 64,580 million (US $ 1,616 million) in the previous year.

**Table 4-15: Substantial Acquisition of Shares and Takeovers**

| Year | Open Offers | | | | | | | | | Automatic Exemption | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Objectives | | | | | | Total | | | Number | Value of Shares Acquired | |
| | Change in Control of Management | | Consolidation of Holdings | | Substantial Acquisition | | | | | | | |
| | Number | Value (Rs.mn) | Number | Value (Rs.mn) | Number | Value (Rs. Mn) | Number | Value (Rs.mn) | Value (US $ Mn) | | (Rs. mn) | (US $ mn) |
| 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 | 10,502 | 2,061 |
| April 2009-June 2009 | 11 | 17,150 | 3 | 11,180 | 1 | 170 | 15 | 28,500 | 595 | 47 | 33,430 | 698 |
| **Total** | **660** | **382,606** | **222** | **255,711** | **116** | **76,141** | **998** | **714,458** | **16,330** | **2,665** | **843,450** | **18,000** |

*Source:* SEBI.

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

| Sr. No. | Exchanges | Participants at the end March | | | | | |
|---|---|---|---|---|---|---|---|
| | | Registered Brokers | | | Registered Sub-Brokers | | |
| | | 2007 | 2008 | 2009 | 2007 | 2008 | 2009 |
| 1 | Ahmedabad | 317 | 321 | 325 | 97 | 97 | 96 |
| 2 | Bangalore | 256 | 256 | 257 | 156 | 156 | 158 |
| 3 | BSE | 901 | 946 | 984 | 13482 | 20,616 | 30,059 |
| 4 | Bhubaneshwar | 216 | 214 | 213 | 17 | 17 | 17 |
| 5 | Calcutta | 960 | 957 | 926 | 87 | 87 | 84 |
| 6 | Cochin | 432 | 435 | 435 | 42 | 42 | 43 |
| 7 | Coimbatore | 135 | 135 | 135 | 21 | 21 | 19 |
| 8 | Delhi | 374 | 374 | 375 | 292 | 277 | 261 |
| 9 | Gauhati | 104 | 103 | 103 | 4 | 4 | 4 |
| 10 | ICSEIL | 925 | 935 | 946 | 3 | 3 | 3 |
| 11 | Jaipur | 492 | 488 | 488 | 33 | 33 | 33 |
| 12 | Ludhiana | 293 | 297 | 301 | 37 | 37 | 36 |
| 13 | Madhya Pradesh | 174 | 174 | 174 | 5 | 5 | 5 |
| 14 | Madras | 181 | 181 | 183 | 112 | 112 | 110 |
| 15 | NSE | 1,077 | 1,129 | 1243 | 12724 | 22,144 | 31,328 |
| 16 | OTCEI | 752 | 719 | 713 | 19 | 19 | 19 |
| 17 | Pune | 188 | 188 | 188 | 158 | 158 | 156 |
| 18 | Uttar Pradesh | 384 | 354 | 351 | 14 | 8 | 3 |
| 19 | Vadodara | 311 | 311 | 312 | 38 | 38 | 37 |
| | **Total** | **9,443** | **8,517** | **8,652** | **27,540** | **43,874** | **62,471** |

*Source: SEBI*

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

| Month/ Year | No. of Trading Days | No. of Com-panies Traded | No. of Trades (mn.) | Traded Quantity (mn.) | Turnover (Rs. mn.) | Average Daily Turnover (Rs. mn.) | Turn-over Ratio (%) | Demat Securities Traded (mn.) | Demat Turnover (Rs. mn.) | Demat Turnover as a % of Total Turnover | Market Capitalisa-tion (Rs. 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** |
| Apr-08 | 20 | 1,240 | 108 | 11,428 | 2,712,269 | 135,613 | --- | 11,428 | 2,712,269 | 100.00 | 54,427,796 |
| May-08 | 20 | 1,246 | 107 | 11,501 | 2,779,229 | 138,961 | --- | 11,501 | 2,779,229 | 100.00 | 50,988,729 |
| Jun-08 | 21 | 1,256 | 111 | 10,855 | 2,644,282 | 125,918 | --- | 10,855 | 2,644,282 | 100.00 | 41,036,509 |
| Jul-2008 | 23 | 1,267 | 134 | 13,429 | 2,958,162 | 128,616 | --- | 13,429 | 2,958,162 | 100.00 | 44,324,274 |
| Aug-2008 | 20 | 1,274 | 107 | 10,435 | 2,342,507 | 117,125 | --- | 10,435 | 2,342,507 | 100.00 | 44,724,613 |
| Sep-2008 | 21 | 1,275 | 113 | 10,220 | 2,622,612 | 124,886 | --- | 10,220 | 2,622,612 | 100.00 | 39,001,850 |
| Oct-2008 | 20 | 1,277 | 118 | 10,930 | 2,161,984 | 108,099 | --- | 10,930 | 2,161,984 | 100.00 | 28,203,879 |
| Nov-2008 | 18 | 1,282 | 110 | 10,685 | 1,731,228 | 96,179 | --- | 10,685 | 1,731,228 | 100.00 | 26,532,813 |
| Dec-2008 | 21 | 1,282 | 130 | 14,479 | 2,129,560 | 101,408 | --- | 14,479 | 2,129,560 | 100.00 | 29,167,684 |
| Jan-2009 | 20 | 1,281 | 122 | 14,525 | 1,911,835 | 95,592 | --- | 14,525 | 1,911,835 | 100.00 | 27,987,065 |
| Feb-2009 | 19 | 1,280 | 97 | 11,186 | 1,498,575 | 78,872 | --- | 11,186 | 1,498,575 | 100.00 | 26,756,224 |
| Mar-2009 | 20 | 1,283 | 108 | 12,961 | 2,027,985 | 101,399 | --- | 12,961 | 2,027,985 | 100.00 | 28,961,942 |
| **2008-09** | **243** | **1,277** | **1,365** | **142,635** | **27,520,230** | **113,252** | **95.02** | **142,635** | **27,520,230** | 100.00 | **28,961,942** |
| Apr-09 | 17 | 1,266 | 127 | 18,316 | 2,666,965 | 156,880 | --- | 18,316 | 2,666,965 | 100.00 | 33,750,246 |
| May-09 | 20 | 1,268 | 148 | 22,903 | 3,825,610 | 191,281 | --- | 22,903 | 3,825,610 | 100.00 | 45,645,722 |
| Jun-09 | 22 | 1,268 | 180 | 27,485 | 4,824,136 | 219,279 | --- | 27,485 | 4,824,136 | 100.00 | 44,325,955 |
| **April-June09** | **59** | **1,275** | **455** | **68,704** | **11,316,711** | **191,809** | **25.53** | **68,704** | **11,316,711** | **100.00** | **44,325,955** |

**Annexure 4-3: S&P CNX Nifty Index (Nifty 50) - June 2009**

| Sr. No | Name of the Security and Industry | Free Float Market Capitalisation (Rs. million.) | Weight-age (%) | Beta* | $R^2$ | Average Daily volatility (%) | Monthly Return (%) | Impact Cost (%) |
|---|---|---|---|---|---|---|---|---|
| 1 | ABB Ltd. ---Electrical Equipment | 78,998 | 0.68 | 0.87 | 0.49 | 3.15 | 19.58 | 0.13 |
| 2 | ACC Ltd. ---Cement And Cement Products | 77,308 | 0.66 | 0.71 | 0.40 | 3.81 | (2.14) | 0.11 |
| 3 | Ambuja Cements Ltd. ---Cement And Cement Products | 71,333 | 0.61 | 0.85 | 0.42 | 3.54 | (4.48) | 0.15 |
| 4 | Axis Bank Ltd. ---Banks | 172,455 | 1.48 | 1.30 | 0.62 | 3.58 | 6.84 | 0.10 |
| 5 | Bharti Airtel Ltd. ---Telecommunication - Services | 500,158 | 4.30 | 1.00 | 0.64 | 1.54 | (2.28) | 0.09 |
| 6 | Bharat Heavy Electricals Ltd. ---Electrical Equipment | 348,261 | 2.99 | 1.03 | 0.66 | 2.70 | 1.19 | 0.09 |
| 7 | Bharat Petroleum Corporation Ltd. ---Refineries | 55,575 | 0.48 | 0.49 | 0.18 | 2.33 | (7.45) | 0.12 |
| 8 | Cairn India Ltd. ---Oil Exploration/Production | 100,121 | 0.86 | 1.02 | 0.48 | 3.02 | 0.39 | 0.11 |
| 9 | Cipla Ltd. ---Pharmaceuticals | 119,374 | 1.03 | 0.50 | 0.31 | 2.22 | 13.71 | 0.10 |
| 10 | DLF Ltd. ---Construction | 112,636 | 0.97 | 1.57 | 0.56 | 4.58 | (23.54) | 0.11 |
| 11 | GAIL (India) Ltd. ---Gas | 129,537 | 1.11 | 0.76 | 0.48 | 1.85 | (3.88) | 0.11 |
| 12 | Grasim Industries Ltd. ---Cement And Cement Products | 158,528 | 1.36 | 0.77 | 0.42 | 3.43 | 9.90 | 0.12 |
| 13 | HCL Technologies Ltd. ---Computers - Software | 39,620 | 0.34 | 1.03 | 0.41 | 4.15 | 11.41 | 0.16 |
| 14 | Housing Development Finance Corporation Ltd. ---Finance - Housing | 588,908 | 5.06 | 1.23 | 0.64 | 2.09 | 7.58 | 0.10 |
| 15 | HDFC Bank Ltd. ---Banks | 513,025 | 4.41 | 0.97 | 0.62 | 2.25 | 3.37 | 0.10 |
| 16 | Hero Honda Motors Ltd. ---Automobiles - 2 And 3 Wheelers | 125,694 | 1.08 | 0.46 | 0.26 | 2.04 | 4.52 | 0.10 |
| 17 | Hindalco Industries Ltd. ---Aluminium | 93,942 | 0.81 | 1.14 | 0.53 | 4.20 | 2.13 | 0.13 |
| 18 | Hindustan Unilever Ltd. ---Diversified | 279,572 | 2.40 | 0.40 | 0.27 | 1.57 | 15.90 | 0.07 |
| 19 | ICICI Bank Ltd. ---Banks | 803,725 | 6.90 | 1.59 | 0.72 | 2.84 | (2.43) | 0.10 |
| 20 | Idea Cellular Ltd. ---Telecommunication - Services | 112,451 | 0.97 | 1.13 | 0.56 | 3.82 | (15.27) | 0.13 |
| 21 | Infosys Technologies Ltd. ---Computers - Software | 849,780 | 7.30 | 0.69 | 0.42 | 2.05 | 10.68 | 0.09 |
| 22 | I T C Ltd. ---Cigarettes | 489,793 | 4.21 | 0.53 | 0.37 | 2.73 | 3.87 | 0.12 |
| 23 | Larsen & Toubro Ltd. ---Engineering | 919,122 | 7.90 | 1.19 | 0.72 | 3.38 | 11.81 | 0.12 |
| 24 | Mahindra & Mahindra Ltd. ---Automobiles - 4 Wheelers | 136,457 | 1.17 | 1.06 | 0.46 | 3.14 | 3.34 | 0.11 |
| 25 | Maruti Suzuki India Ltd. ---Automobiles - 4 Wheelers | 141,413 | 1.21 | 0.68 | 0.38 | 2.05 | 4.07 | 0.12 |
| 26 | National Aluminium Co. Ltd. ---Aluminium | 25,344 | 0.22 | 0.90 | 0.32 | 2.75 | (13.57) | 0.15 |
| 27 | NTPC Ltd. ---Power | 168,880 | 1.45 | 0.75 | 0.56 | 2.40 | (9.45) | 0.09 |
| 28 | Oil & Natural Gas Corporation Ltd. ---Oil Exploration/Production | 360,001 | 3.09 | 0.89 | 0.61 | 2.80 | (8.72) | 0.12 |
| 29 | Punjab National Bank ---Banks | 90,182 | 0.77 | 0.90 | 0.53 | 3.04 | 1.04 | 0.11 |
| 30 | Power Grid Corporation of India Ltd. ---Power | 62,788 | 0.54 | 0.82 | 0.52 | 2.62 | (4.83) | 0.11 |
| 31 | Ranbaxy Laboratories Ltd. ---Pharmaceuticals | 37,134 | 0.32 | 0.77 | 0.23 | 4.02 | (12.21) | 0.12 |

*Contd.*

*Contd.*

| Sr. No | Name of the Security and Industry | Free Float Market Capitalisation (Rs. million.) | Weight-age (%) | Beta* | $R^2$ | Average Daily volatil-ity (%) | Month-ly Return (%) | Impact Cost (%) |
|---|---|---|---|---|---|---|---|---|
| 32 | Reliance Communications Ltd. ---Telecommunication - Services | 195,137 | 1.68 | 1.52 | 0.66 | 4.18 | (5.30) | 0.11 |
| 33 | Reliance Capital Ltd. ---Finance | 102,780 | 0.88 | 1.59 | 0.66 | 4.29 | (4.55) | 0.10 |
| 34 | Reliance Industries Ltd. ---Refineries | 1,440,017 | 12.37 | 1.23 | 0.77 | 2.96 | (10.94) | 0.08 |
| 35 | Reliance Infrastructure Ltd. ---Power | 168,345 | 1.45 | 1.68 | 0.72 | 4.00 | (5.92) | 0.11 |
| 36 | Jindal Steel & Power Ltd. ---Steel And Steel Products | 158,937 | 1.37 | 1.18 | 0.52 | 3.60 | 19.15 | 0.10 |
| 37 | Reliance Power Ltd. ---Power | 61,104 | 0.52 | 1.06 | 0.61 | 3.08 | (7.41) | 0.12 |
| 38 | Steel Authority of India Ltd ---Steel And Steel Products | 88,530 | 0.76 | 1.29 | 0.61 | 3.80 | (12.48) | 0.12 |
| 39 | State Bank of India ---Banks | 449,717 | 3.86 | 1.09 | 0.64 | 2.74 | (6.61) | 0.09 |
| 40 | Siemens Ltd. ---Electrical Equipment | 71,298 | 0.61 | 1.02 | 0.45 | 3.23 | (3.67) | 0.16 |
| 41 | Sterlite Industries (India) Ltd. ---Metals | 166,897 | 1.43 | 1.38 | 0.56 | 4.15 | (2.68) | 0.13 |
| 42 | Sun Pharmaceutical Industries Ltd. ---Pharmaceuticals | 81,960 | 0.70 | 0.40 | 0.14 | 3.60 | (10.15) | 0.11 |
| 43 | Suzlon Energy Ltd. ---Electrical Equipment | 59,348 | 0.51 | 1.61 | 0.52 | 6.79 | 5.98 | 0.14 |
| 44 | Tata Communications Ltd. ---Telecommunication - Services | 32,205 | 0.28 | 0.94 | 0.44 | 3.79 | 1.55 | 0.11 |
| 45 | Tata Motors Ltd. ---Automobiles - 4 Wheelers | 68,771 | 0.59 | 1.17 | 0.48 | 4.46 | (13.69) | 0.12 |
| 46 | Tata Power Co. Ltd. ---Power | 170,246 | 1.46 | 0.94 | 0.53 | 2.76 | 7.46 | 0.13 |
| 47 | Tata Steel Ltd. ---Steel And Steel Products | 188,544 | 1.62 | 1.42 | 0.59 | 4.68 | (3.63) | 0.10 |
| 48 | Tata Consultancy Services Ltd. ---Computers - Software | 181,499 | 1.56 | 0.88 | 0.49 | 2.29 | (44.67) | 0.12 |
| 49 | Unitech Ltd. ---Construction | 79,418 | 0.68 | 1.68 | 0.42 | 5.00 | 0.06 | 0.13 |
| 50 | Wipro Ltd. ---Computers - Software | 114,509 | 0.98 | 0.92 | 0.50 | 2.13 | (1.12) | 0.12 |
| | | **11,641,377** | **100.00** | **1.00** | -- | **1.92** | **(3.55)** | **0.10** |

* Beta & $R^2$ are calculated for the period 01-July-2008 to 30-June-2009
* 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-June-2009 to 30-June-2009
* Last day of trading was 30-June-2009
* Impact Cost for S&P CNX Nifty is for a portfolio of Rs. 50 Lakhs
* Impact Cost for S&P CNX Nifty is the weightage average impact cost

# Capital Market - Clearing and Settlement

## Introduction

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

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

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

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

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

c. **Custodians**: Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement. The custodian is required to confirm whether he is going to settle that trade or not. If he confirms to settle that trade, then clearing corporation assigns that particular obligation to him. As on date, there are 13 custodians empanelled with NSCCL. They are Deutsche Bank A.G., HDFC Bank Ltd., Hongkong Shanghai Banking Corporation Ltd., Infrastructure leasing and Financial Services Ltd., ICICI Bank Ltd., Standard Chartered Bank Ltd., Stock Holding Corporation of India Ltd. , Axis Bank Ltd., DBS bank Ltd., JP Morgan Chase Bank N.A., Kotak Mahindra Bank Ltd. State Bank of India and Citibank N.A and Orbis Financial Corporation Ltd.

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

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

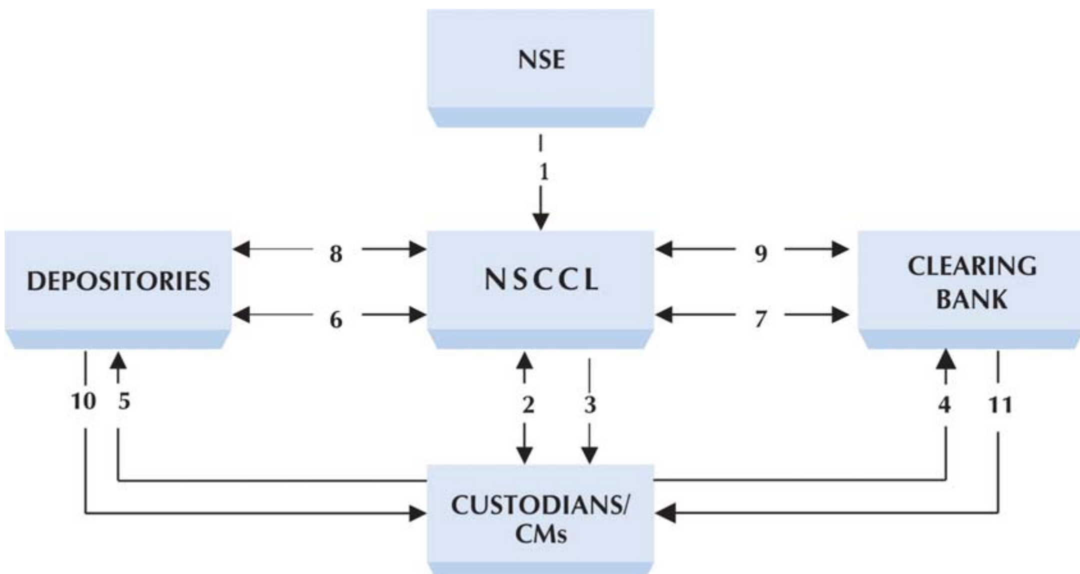
f. **Professional Clearing Member:** NSCCL admits special category of members known as professional clearing members (PCMs). PCMs may clear and settle trades executed for their clients (individuals, institutions etc.). In such cases, the functions and responsibilities of the PCM are similar to that of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

## Clearing & Settlement Process

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

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

**Chart 5-1: Clearing and Settlement Process at NSE**




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

The core processes involved in clearing and settlement include:

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

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

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

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

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

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

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

## Settlement Cycle

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

**Table 5-1: Settlement Cycle in CM Segment**

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

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

## Dematerialised Settlement

NSE along with leading financial institutions established the National Securities Depository Ltd. (NSDL), the first depository in the country, with the objective to reduce the menace of fake/forged and stolen securities and thereby enhance the efficiency of the settlement systems. This has ushered in an era of dematerialized trading and settlement. SEBI, too, has been progressively promoting dematerialisation by mandating settlement only through dematerialized form for more and more securities. The share of demat delivery in total delivery at NSE was 100% in terms of value during 2008-09.

## Settlement Statistics

The details of settlement of trades on CM segment of NSE are provided in Annexure 5.1. There has been a substantial reduction in short and bad deliveries. Short deliveries averaged around 0.21% of total delivery in 2008-09.

During 2008-09, taking all stock exchanges together, 23.15% of securities accounting for 21.83 % turnover were settled by delivery and the balance were squared up/netted out (Table 5-2). In the preceding year, 29.54 % of shares accounting for 28.21 % of turnover was settled by delivery. This indicates preference for non-delivery-based trades.

**Table 5-2: Delivery Pattern in Stock Exchanges**

| Sr. no. | Exchange | 2007-08 | | 2008-09 | |
|---|---|---|---|---|---|
| | | Quantity | Value | Quantity | Value |
| 1 | NSE | 24.77 | 27.33 | 21.38 | 22.18 |
| 2 | BSE | 36.68 | 30.16 | 26.55 | 20.94 |
| 3 | Calcutta | 110.37 | 91.03 | 93.19 | 94.66 |
| 4 | Delhi | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | Ahmedabad | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | Uttar Pradesh | 7.40 | 0.10 | 1.26 | 0.19 |
| 7 | Bangalore | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | Ludhiana | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | Pune | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | OTCEI | 0.00 | 0.00 | 0.00 | 0.00 |
| 11 | ISE | 0.00 | 0.00 | 0.00 | 0.00 |
| 12 | Madras | 0.00 | 0.00 | 0.00 | 0.00 |
| 13 | Vadodara | 0.00 | 0.00 | 0.00 | 0.00 |
| 14 | Bhubaneshwar | 0.00 | 0.00 | 0.00 | 0.00 |
| 15 | Coimbatore | 0.00 | 0.00 | 0.00 | 0.00 |
| 16 | Madhya Pradesh | 0.00 | 0.00 | 0.00 | 0.00 |
| 17 | Jaipur | 0.00 | 0.00 | 0.00 | 0.00 |
| 18 | Gauhati | 0.00 | 0.00 | 0.00 | 0.00 |
| 19 | Jaipur | 0.00 | 0.00 | 0.00 | 0.00 |
| | **Total** | **29.54** | **28.21** | **23.15** | **21.83** |

*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
Stock Exchanges with '0' qnty and value, indicates no turnover on these stock exchanges.

## Risk Management:

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

### Risk Containment Measures

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

## Capital Adequacy

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

## On-Line Monitoring

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

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

## Off-line Surveillance Activity

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

## Margin Requirements

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

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

## Categorisation of newly listed securities

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

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

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

### 1) Value at Risk Margin :

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

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

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

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

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

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

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

### 2) Extreme Loss Margin

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

### 3) Mark to Market Margin

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

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

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

## Close Out Facility

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

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

## Index-based Market-wide Circuit Breakers

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

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

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

- Daily price bands of 2% (either way) on a set of specified securities
- Daily price bands of 5% (either way) on a set of specified securities
- Daily price bands of 10% (either way) on a set of specified securities
- Price bands of 20% (either way) on all the remaining securities (including debentures, warrants, preference shares etc. which are traded on CM segment of NSE),
- No price bands are applicable on scrip on which derivative products are available or scrips included in indices on which derivative products are available. However in order to prevent members from entering orders at non-genuine prices in such securities, the Exchange has fixed operating range of 20% for such securities.

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

## Settlement Guarantee Fund

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

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

| Month/ Year | No. of Trades (mn.) | Traded Quantity (mn.) | Quantity of Shares Deliverable (mn.) | % of Shares Deliverable to Total Shares Traded | Turnover (Rs. mn.) | Value of Shares Deliverable (Rs. mn.) | Turnover (US $. mn.) | Value of Shares Deliverable (US$. mn.) | % of Deliverable to Value of Shares Traded | Securities Pay-in Rs. mn.) | Short Delivery (Auctioned quantity) (mn.) | % of Short Delivery to Deliverable (quantity) | Unrectified Bad Delivery (Auctioned quantity) (mn.) | % of Unrectified Bad Delivery to Delivery | Funds Pay-in (Rs. mn.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **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** | **99.65** | **0.27** | **0** | **0** | **3,095,432** |
| Apr-08 | 107 | 11,136 | 2,492 | 22.38 | 2,624,229 | 634,920 | 51,506 | 12,462 | 24.19 | 633,829 | 5.52 | 0.22 | 0 | 0 | 193,395 |
| May-08 | 108 | 11,550 | 2,538 | 21.97 | 2,789,621 | 689,028 | 54,752 | 13,524 | 24.70 | 687,993 | 5.36 | 0.21 | 0 | 0 | 217,454 |
| Jun-08 | 112 | 11,069 | 2,387 | 21.57 | 2,726,970 | 643,302 | 53,522 | 12,626 | 23.59 | 642,172 | 5.53 | 0.23 | 0 | 0 | 222,160 |
| Jul-08 | 133 | 13,200 | 2,531 | 19.17 | 2,906,990 | 614,056 | 57,056 | 12,052 | 21.12 | 613,105 | 5.48 | 0.22 | 0 | 0 | 210,147 |
| Aug-08 | 108 | 10,691 | 2,282 | 21.35 | 2,382,790 | 544,472 | 46,767 | 10,686 | 22.85 | 543,690 | 4.32 | 0.19 | 0 | 0 | 178,619 |
| Sep-08 | 105 | 9,556 | 2,407 | 25.19 | 2,471,885 | 610,387 | 48,516 | 11,980 | 24.69 | 609,341 | 4.40 | 0.18 | 0 | 0 | 262,078 |
| Oct-08 | 123 | 11,116 | 2,865 | 25.77 | 2,301,925 | 546,895 | 45,180 | 10,734 | 23.76 | 545,846 | 6.71 | 0.23 | 0 | 0 | 258,886 |
| Nov-08 | 112 | 10,997 | 2,472 | 22.48 | 1,782,080 | 368,801 | 34,977 | 7,238 | 20.69 | 368,111 | 3.99 | 0.16 | 0 | 0 | 147,717 |
| Dec-08 | 129 | 14,229 | 2,815 | 19.78 | 2,133,872 | 408,544 | 41,882 | 8,019 | 19.15 | 408,005 | 4.72 | 0.17 | 0 | 0 | 150,751 |
| Jan-09 | 121 | 14,196 | 2,764 | 19.47 | 1,873,931 | 365,292 | 36,780 | 7,170 | 19.49 | 364,639 | 4.79 | 0.17 | 0 | 0 | 127,262 |
| Feb-09 | 100 | 11,690 | 2,180 | 18.65 | 1,526,254 | 302,599 | 29,956 | 5,939 | 19.83 | 302,077 | 4.23 | 0.19 | 0 | 0 | 105,249 |
| Mar-09 | 106 | 12,464 | 2,658 | 21.33 | 1,973,955 | 387,056 | 38,743 | 7,597 | 19.61 | 386,169 | 7.49 | 0.28 | 0 | 0 | 133,325 |
| **2008-09** | **1,364** | **141,894** | **30,391** | **21.42** | **27,494,501** | **6,115,350** | **539,637** | **120,027** | **22.24** | **6,104,977** | **62.52** | **0.21** | **0** | **0** | **2,207,040** |
| Apr-09 | 126 | 17,934 | 3,441 | 19.19 | 2,613,099 | 481,486 | 54,587 | 10,058 | 18.43 | 480,717 | 6.83 | 0.20 | 0 | 0 | 162,686 |
| May-09 | 144 | 21,907 | 4,555 | 20.79 | 3,579,318 | 744,359 | 74,772 | 15,550 | 20.80 | 743,169 | 11.27 | 0.25 | 0 | 0 | 252,195 |
| Jun-09 | 182 | 28,112 | 5,311 | 18.89 | 4,965,891 | 988,893 | 103,737 | 20,658 | 19.91 | 987,606 | **8.11** | 0.15 | 0 | 0 | 296,316 |
| **Apr 09 to June 09** | **452** | **67,953** | **13,307** | **19.58** | **11,158,308** | **2,214,738** | **233,096** | **46,266** | **19.85** | **2,211,492** | **26.21** | **0.20** | **0** | **0** | **711,197** |

# Debt Market [1]

## Introduction

The debt market in India comprises mainly of two categories, firstly the government securities or the G-Sec markets consisting of central government and state governments securities. The government to finance its fiscal deficit floats the fixed income instruments and borrows by issuing G-Secs that are sovereign securities and are issued by the Reserve Bank of India (RBI) on behalf of Government of India. The second category comprises of the non G-Sec markets i.e the corporate securities consisting of FI (financial institutions) bonds, PSU (public sector units) 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 though a market for OTC derivatives in interest rate products exists.

## Trends

During 2008-09, the government and corporate sector collectively mobilized Rs. 6,125,147 million (US $ 120,219 million) from primary debt market, a rise of 64.54% as compared to the preceding year **(Table 6-1)**. About 71.29% of the resources were raised by the government (Central and State Governments), while the balance amount was mobilized by the corporate sector through public and private placement issues. The turnover in secondary debt market during 2008- 09 aggregated Rs. 62,713,470 million (US $ 1,230,883 million), 11.01% higher than that in the previous year. The share of NSE in total turnover in debt securities witnessed stood at 5.36 % during 2008-09.

**Table 6-1: Debt Market: Selected Indicators**

| Issuer / Securities | Amount raised form Primary Market | | Turnover in Secondary Market | | Amount raised form Primary Market | | Turnover in Secondary Market | |
|---|---|---|---|---|---|---|---|---|
| | (Rs. mn.) | | | | (US $ mn.) | | | |
| | 2007-08 | 2008-09 | 2007-08 | 2008-09 | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
| Government | 2,559,840 | 4,366,880 | 56,273,470* | 62,254,360* | 64,044 | 85,709 | 1,407,893 | 1,221,872 |
| Corporate/Non Government | 1,162,661 | 1,758,267 | 222,273 | 459,110 | 29,088 | 34,510 | 5,561 | 9,011 |
| **Total** | **3,722,501** | **6,125,147** | **56,495,743** | **62,713,470** | **93,132** | **120,219** | **1,413,454** | **1,230,883** |

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

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

# Policy Developments

## I RBI puts out draft guidelines on repo in corporate debt securities in public domain, for comments/views.

Vide press release dated September 17, 2009, the Reserve Bank of India had placed on its website "Draft Guidelines on Repo in Corporate Debt Securities" for comments/views.

The Mid-Term Review of the Annual Policy for the year 2007-08 had indicated that the Reserve Bank will permit market repo in corporate bonds once the corporate debt market develops and the Reserve Bank is assured of the availability of fair prices, and an efficient and safe settlement system based on delivery *versus* payment (DvP) III and Straight Through Processing (STP) is in place. In this regard, as indicated in the Annual Policy Statement for the year 2009-10, the RBI, in consultation with SEBI, has permitted the clearing houses of the exchanges to have a transitory pooling account facility with the Reserve Bank for facilitating settlement of OTC corporate bond transactions on a DvP-I basis (*i.e.*, on a trade-by-trade basis). With the necessary system being in place to ensure settlement of trades in corporate bonds on a DvP-1 basis and STP, the RBI has formulated, in consultation with the market participants, guidelines for repo in corporate bonds in corporate debt securities, the detailed guidelines for Eligible securities, participants, Tenor, Trading etc are available in the press release.

## II Clearing and Settlement of trades in corporate bonds to be done through National Securities Clearing Corporation or the Indian Clearing Corporation from December 1, 2009

SEBI had vide its circular dated October 16, 2009 informed the stock exchanges to undertake the clearing and settlement activity of trades in corporate bonds through the clearing corporations. SEBI had earlier authorized BSE, NSE and FIMMDA to set up and maintain reporting platforms to capture information related to trading in corporate bonds. Subsequently, SEBI authorized BSE and NSE to set up and maintain trading platforms for Corporate Bonds. It had been decided that all trades in corporate bonds between specified entities, namely, mutual funds, foreign institutional investors/ sub-accounts, venture capital funds, foreign venture capital investors, portfolio mangers, and RBI regulated entities as specified by RBI would be cleared and settled through the National Securities Clearing Corporation Limited (NSCCL) or the Indian Clearing Corporation Limited (ICCL) from December 1, 2009. This would be applicable to all corporate bonds traded over the counter (OTC) or on the debt segment of Stock Exchanges. However, this is not applicable to trades in corporate bonds that are traded on the capital market segment/ equity segment of the stock exchanges and are required to be settled through clearing corporations/ clearing houses of stock exchanges. Meanwhile, the Reserve Bank of India (RBI) had allowed both the clearing houses NSCCL and the ICCL to open transitory pooling accounts with the central bank in Mumbai to facilitate settlement of OTC corporate bond transactions in Real-Time Gross Settlement system on a trade-by-trade basis.

Accordingly, the clearing and settlement of Corporate Bonds has started off at NSCCL. To facilitate this process the participation registration, settlement schedule, procedure and reports are put together in the circular dated November 23, 2009 placed on the NSE website.

## III SEBI further simplifies Debt Listing Agreement for Debt Securities

SEBI had, vide its circular dated May 11, 2009 put in place the Simplified Listing Agreement for Debt Securities. Pursuant to suggestions from various market participants received subsequently, SEBI had amended the said Listing Agreement vide its circular dated November 26, 2009.

The amendments are briefly summarized as under:

- **100% Asset Cover:** To align the Listing Agreement with the provisions of the Companies Act, 1956, the amended Listing Agreement requires issuers to maintain 100% asset cover sufficient to discharge the principal amount at all times for the debt securities issued. Further, to provide more information to investors, the periodic disclosures to the stock exchange shall now require disclosure of the extent and nature of security created and maintained.

- **Submission of certificate on maintenance of security:** As against half-yearly certifications on security cover in respect of listed secured debt securities, the amended Listing Agreement provides for submission of such certificates regarding maintenance of 100% asset cover, and the time limit of submission in respect of the last half year has been aligned with the option provided for submission of annual audited results at a later date. In addition to Banks and NBFCs being exempt from submitting such certificates, issuers of Government guaranteed bonds shall also be exempt.
- **Statement on Use of Issue Proceeds:** In order to enhance the quality of disclosures made to investors, issuers shall be required to furnish a statement of deviations in use of issue proceeds, if any, to the stock exchange on a half yearly basis. Also, the same is required to be published in the newspapers simultaneously with the half-yearly financial results.
- **Deposit of 1% of issue proceeds**: So as to ensure that the interest of investors investing in public issues of debt securities is protected, the issuer shall be required to deposit an amount calculated at 1% of the amount of debt securities offered for subscription to the public. It is refundable or forfeitable in the manner stated in the Rules, Bye-laws and Regulations of the Exchange.
- **Submission/ publication of Financial Statements:** The time-lines for disclosure of financial statements have been aligned with the proposed changes to the Equity Listing Agreement. Accordingly, issuers would now have to publish/ furnish to the Exchange, either audited half yearly financial statements or unaudited half yearly financial statements subject to a limited review within 45 days from the end of the half year. In case of the last half year, issuers may opt to submit their annual audited results in lieu of the unaudited financial results for the period, within 60 days from the end of the financial year.

### IV SEBI set up an advisory committee - "Corporate Bonds and Securitization Advisory Committee" (CoBoSAC)

In May 2008, SEBI set up an advisory committee named "Corporate Bonds and Securitization Advisory Committee" (CoBoSAC) under the chairmanship of Dr. RH Patil for making recommendations on developing the market for corporate bonds and securitized debt instruments. Thereafter, the committee met at various intervals to deliberate on the developments of corporate bond market. The key recommendation was the implementation of mandatory DvP-III clearing and settlement on exchanges with Real Time Gross Settlement RTGS. For this purpose the stock exchanges were advised to have RTGS access.

## Market Design - Government Securities

| | |
|---|---|
| **Market Participants** | Given the large size of the trades, the debt market has remained predominantly a wholesale market. The matrix of issuers, investors, instruments in the debt market and their maturities are presented in (Table 6-2). |
| **Regulators** | The RBI operates both as the monetary authority and the debt manager to the government. The RBI participates in the market through:<br>• Open-market operations (OMO)<br>• Liquidity Adjustment facility (LAF)<br>• Bank rate<br>• Repo rate.<br>SEBI regulates the debt instruments listed on the stock exchanges.<br>• It issues guidelines for its issuance and also for their listing on stock exchanges.<br>• The secondary market trading is conducted as per the rules set by SEBI. |

| | |
|---|---|
| **Primary Dealers** | **Primary dealers (PDs)** are important intermediaries in the government securities markets. There were 19 PDs operating in the market at the end of July 2009.<br><br>Primary Dealers act as **underwriters** in the primary market and are expected to support the primary issues of dated securities of Central Government and State Government and Treasury Bills of Central Government, through underwriting/bidding commitments and success ratios.<br><br>The underwriting commitment on dated securities of Central Government is divided into two parts, Minimum Underwriting Commitment (MUC) and Additional Competitive Underwriting (ACU). The MUC of each PD is computed to ensure that at least 50 percent of the notified amount of each issue is mandatory underwritten equally by all PDs. The share under MUC will be uniform for all PDs, irrespective of their capital or balance sheet size. The remaining portion of the notified amount will be underwritten through an Additional Competitive Underwriting (ACU) auction.<br><br>For auction of dated securities, RBI may invite PDs to collectively bid to underwrite up to 100 per cent of the notified amount of State Development Loans (SDL).<br><br>In case of underwriting of Treasury Bills each PD individually commits, at the beginning of the year, to submit bids for a fixed percentage of the notified amount of Treasury Bills in each auction. The minimum bidding commitment amount / percentage for each PD is determined by the Reserve Bank, in consultation with the PD.<br>• They are **Market makers** in the secondary market. PDs underwrite a portion of the issue of government security that is floated for a pre-determined amount.<br>• RBI provides liquidity support to the PDs through LAF against collateral of government securities and through repo operations/refinance.<br>• PDs are also given favoured access to the RBI's open market operations.<br>• They are permitted to borrow and lend in the money market. |
| **Brokers** | • Play an important role in secondary debt market by bringing together counterparties and negotiating terms of trade.<br>• Trades are entered through them on the stock exchanges<br>The brokers are regulated by the stock exchanges and by SEBI. |
| **Investors** | • **Banks**<br>• **Mutual Funds**.<br>• **Insurance Company's**<br>• **Foreign Institutional Investors (FIIs)** also are permitted to invest in treasury and corporate bonds, within certain limits.<br>• **Provident and pension funds** are large investors in the debt markets. **Charitable institutions, trusts and societies** are also large investors in the debt markets. They are, however, governed by their rules and bye-laws with respect to the kind of bonds they can buy and the manner in which they can trade on their debt portfolios.<br>• **Small and Medium Sized Investors:** To enable small and medium sized investors to participate in the primary auction of government securities, a "Scheme of Non Competitive Bidding" was introduced in January 2002, which is open to any person including firms, companies, corporate bodies, institutions, provident funds, trusts, and any other entity prescribed by RBI. The scheme provides for allocation of up to 5 per cent of the notified amount at the weighted average rate of accepted bids. Investors can bid through banks or PDs a minimum amount of Rs.10,000. The aggregate amount of bids submitted by a person in an auction should not exceed the notified amount of auction. |

| Types & Issuers of Securities | Types of Securities |
|---|---|
| | **Securities with fixed coupon rates**<br>These securities carry a specific coupon rate remaining fixed during the term of the security and payable periodically. These may be issued at a discount, at par or at a premium to the face value, but are redeemed at par.<br>**Securities with variable coupon rates, viz, Floating Rate Bonds etc.**<br>These securities carry a coupon rate which will vary according to the change in the base rate to which it is related.<br>**Floating Rate Bonds**<br>These securities carry a coupon rate, which consists of a variable base and a spread. The most common base rate used is the weighted average of yield of 364 day-treasury bills. The spread is decided at the auction.<br>**Zero Coupon Bonds**<br>These are issued at discount and redeemed at par. On the basis of the bids tendered, the RBI determines the cut-off price at which tenders would be accepted at the auction<br>**Treasury Bills**<br>Treasury bills (T-bills) are short-term debt instruments issued by the Central government. They have either 91-days, 182-days or 364-days maturity. T-bills are sold through an auction process announced by the RBI at a discount to its face value. RBI issues an indicative calendar of T-bill auctions.<br>**Securities with Embedded Options**<br>These securities, where a 'call option'/ 'put option' is specified, are repaid at the option before the specified redemption date.<br>**Government Securities** issued by Central and State Government and Local bodies. In the recent past, local bodies such as municipalities have also tapped the market. The Central Government mobilises funds mainly through issue of dated securities and T-bills, while State Governments rely solely on state development loans.<br>The States raise resources through Auctions and Tap routes. The State Government raised a gross amount of Rs.1,181,380 million in 2008-09 as compared with Rs.677,790 million in the previous year. The entire gross amount was raised through the auction route. |

***Primary Issuance Process of Government Securities***

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

**Issue of securities through auction**

The securities are issued through auction either on price basis or yield basis.

- If the issue is on price basis, the coupon is pre-determined, then the bidders should quote price per Rs.100 of the face value of the security.
- If the issue is on yield basis, then the coupon of the security is decided in an auction and the security carries the same coupon till maturity. On the basis of the bids received, RBI determines the maximum rate of yield or the minimum offer price as the case may be at which offers for purchase of securities would be accepted.

The auctions for issue of securities (on either yield basis or price basis) are held either on 'Uniform Price' method or 'Multiple Price Method'.

| | |
|---|---|
| **Issue of securities with pre-announced coupon rates**: The coupon on securities is announced before the date of floatation and the securities are issued at par. In case the total subscription exceeds the aggregate amount offered for sale, RBI may make partial allotment to all the applicants. **Issue of securities through tap sale** No aggregate amount is indicated in the notification in respect of the securities sold on tap. Sale of such securities may be extended to more than one day and the sale may be closed at any time on any day. **Issue of securities in conversion of maturing treasury bills/dated securities** The holders of treasury bills of certain specified maturities and holders of specified dated securities are provided an option to convert their holding at specified prices into new securities offered for sale. The new securities could be issued on an auction/pre-announced coupon basis. | |
| **Purchasers of G-Secs** | • Any person including firm, company, corporate body, institution, state government, provident fund, trust, NRI, OCB predominantly owned by NRIs and FII registered with SEBI and approved by RBI can submit offers, including in electronic form for purchase of government securities. The payments can be done through a variety of means such as cash or cheque drawn on RBI or Banker's pay order or by authority to debit their current account with RBI or by Electronic Fund Transfer. Government securities are issued for a minimum amount of Rs. 10,000 (face value) and in multiples of Rs. 10,000 thereafter. These are issued to the investors by credit to their SGL Account or to a Constituent SGL Account of the institution as maintained with RBI or by credit to their Bond Ledger or in the form of physical certificate. These are repaid at Public Debt Offices of RBI or any other institution at which they are registered at the time of repayment.<br>• Retail investors can participate in the auctions on 'non-competitive' basis. Allocation of the securities to the non-competitive bidders are made at the discretion of the RBI and at a price higher than the weighted average price arrived at on the basis of the competitive bids accepted at the auction. The nominal amount of securities that would be allocated to retail investors on non-competitive basis is restricted to a maximum of 5 percentage of the aggregate nominal amount of the issue, within or outside of the nominal amount which is issued at the weighted average price of the issue at the auction. |
| **Secondary Market Participants** | • Banks<br>• Financial Institutions<br>• Primary Dealers<br>• Mutual Funds<br>Most of the secondary market trades in government securities are negotiated between participants (Banks, FIs, PDs, MFs) having SGL accounts with RBI. These may be negotiated directly between counter parties or negotiated through brokers. |
| **Listing of Government Securities** | All government securities are 'deemed' listed as and when they are issued. All eligible securities, whether publicly issued or privately placed, can be made available for trading in the WDM segment. Amongst other requirements, privately placed debt paper of banks, institutions and corporates requires an investment grade credit rating to be eligible for listing. The listing requirements for securities on the WDM segment of NSE are presented in (Table 6-3). |

**SECONDARY MARKET – Trading System**

Most of the secondary market trades in government securities are negotiate between participants (Banks, FIs, PDs, MFs) having SGL accounts with RBI. These may be negotiated directly between counter parties or negotiated through brokers.

**Various Trading Platforms**

| | |
|---|---|
| **Negotiated Dealing System (NDS)** | NDS of RBI provides an electronic platform for negotiating trades in government securities. If a broker is involved, the trade is reported to the concerned exchange. |
| **NDS– Order Matching (NDS-OM)** | • NDS-OM is an electronic, screen based, anonymous, order driven trading system, introduced by RBI as part of the existing NDS system to facilitate electronic dealing in government securities.<br>• It is accessible to members through RBI's INFINET Network.<br>• The system facilitates better price discovery, liquidity, increased operational efficiency and transparency.<br>• NDS-OM facilitates straight- through-processing, with all the trades on the system automatically sent to CCIL for settlement.<br>• NDS-OM is open to all existing NDS members who are regulated by RBI. Trading in this platform has been gradually extended to entities like insurance companies, mutual funds and, provident funds.<br>• The NDS-OM system supports trading in all Central Government Dated Securities and State Government Securities in T+1 settlement type.<br>• RBI has permitted the execution of intra-day short sale transaction and the covering of short position only on this trading platform. |
| **WDM Segment of NSE Trading System** | NSE's Wholesale Debt Market (WDM) segment offers a fully automated screen based trading platform through the NEAT (National Exchange for Automated Trading) system. The WDM segment as the name suggest permits only high value transactions in debt securities.<br>Hence, it is meant primarily for banks, institutional and corporate participants and intermediaries.<br>The trades on the WDM segment can be executed through the continuous market and negotiated market. In continuous market, the buyer and seller do not know each other and they put their best buy/sell orders, which are stored in order book with price/time priority. If orders match, it results into a trade. The trades in WDM segment are settled directly between the participants, who take an exposure to the settlement risk attached to any unknown counter-party. In the NEAT-WDM system, all participants can set up their counter-party exposure limits against all probable counter-parties. This enables the trading member/participant to reduce/minimise the counter-party risk associated with the counter-party to trade. A trade does not take place if both the buy/sell participants do not invoke the counter-party exposure limit in the trading system.<br>In the negotiated market, the trades are normally decided by the seller and the buyer outside the exchange, and reported to the Exchange through the broker. Thus, deals negotiated or structured outside the exchange are disclosed to the market through NEAT-WDM system. In negotiated market, as buyers and sellers know each other and have agreed to trade, no counter-party exposure limit needs to be invoked. |

| | |
|---|---|
| **Types of Securities traded in the WDM Segment of NSE** | All types of SLR (Government securities, T-bills etc) and non-SLR (CPs, CDs etc) securities are available for trading in the WDM segment of the NSE. All government securities are 'deemed' listed as and when they are issued. The other debt securities are traded either under the 'permitted to trade' or 'listed' category. All eligible securities, whether publicly issued or privately placed, can be made available for trading in the WDM segment. |
| **Charges** | The NSE has waived the transaction charges for the WDM segment of the Exchange for the period April 1, 2009 to March 31, 2010. |
| **Clearing and Settlement** | NSE currently has settlement periods ranging from same day (T+0) settlement to a maximum of (T+2) for non-government securities while settlement of all outright secondary market transactions in government securities was standardized to T+1. In case of repo transactions in government securities, first leg can be settled either on T+0 basis or T+1 basis.<br>In case of government securities, the actual settlement of funds and securities are effected directly between participants or through Reserve Bank of India (RBI). Trades in government securities are reported to RBI-SGL through the Negotiated Dealing System (NDS) of RBI, and Clearing Corporation of India Limited (CCIL) provides settlement guarantee for transactions in government securities including repos. The trades are settled on a net basis through the DvP-III system. In the DvP-III, the settlement of Securities and Funds are carried out on a net basis.<br>For securities other than government securities and T-bills, trades are settled on a gross basis directly between participants on delivery versus payment basis. On the scheduled settlement date, the Exchange provides data/information to the respective member/participant regarding trades to be settled on that day with details like security, counter party and consideration.<br>The settlement details for non-government securities, i.e. certificate no., Cheque no., constituent etc. are reported by the member/participant to the Exchange.<br>The Exchange closely monitors the settlement of transactions through the reporting of settlement details by members and participants. In case of deferment of settlement or cancellation of trade, participants are required to seek prior approval from the Exchange. For any dispute arising in respect of the trades or settlement, the exchange has established arbitration mechanism for resolving the same. |

**Table 6-2: Participants and Products in Debt Market**

| Issuer | Instruments | Maturity | Investors |
|---|---|---|---|
| Central Government | Dated Securities (including MSS) | 2 - 30 years | RBI (secondary market only), Banks, Insurance Companies, Provident Funds, Mutual Funds, PDs, corporates |
| Central Government | T-Bills | 91/182/364 days | RBI, Banks, Insurance companies, Provident Funds, Mutual Funds, Individuals, PDs |
| State Government | Dated Securities | 10-13 years (During 2008-09, only 10 years) | RBI, Banks, Insurance Companies, Provident Funds, Mutual Funds, Individuals and PD's. |
| PSUs | Bonds, Structured Obligations | 5-10 years | Banks, Insurance Companies, Provident Funds, Mutual Funds, Individuals, Corporates |
| Corporates | Debentures | 1 - 12 years | Banks, Mutual Funds, Corporates, Individuals |

*Contd.*

*Contd.*

| Issuer | Instruments | Maturity | Investors |
|---|---|---|---|
| Corporates, PDs | Commercial Papers | 7 days to 1 year | Banks, Mutual Funds, Financial Institutions, Corporates, Individuals, *NRI's* and FIIs |
| All- India Financial Institutions permitted by RBI to raise short-term resources within the umbrella limit fixed by RBI) | Certificates of Deposits | 1-3 years | Banks, Companies, Individuals, FIIs, Corporations, Trusts, Funds, Associations and Fis. NRIs may also subscribe to CDs, but only on non-repatriable basis which should be clearly stated on the Certificate. Such CDs cannot be endorsed to another NRI in the secondary market. |
| Scheduled Commercial Banks | Bank Bonds | 1-10 years | Corporations, Individuals, Companies, Trusts, Funds, Associations, FIs, Non-Resident Indians |
| Municipal Corporation | Municipal Bonds | 0-7 years | Banks, Corporations, Individuals, Companies, Trusts, Funds, Associations, FIs, Non-Resident Indians |

## Corporate Bond Market

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

The corporate bond market has been in existence in India for a long time. However, despite a long history, the size of the public issue segment of the corporate bond market in India has remained quite insignificant. The lack of market infrastructure and comprehensive regulatory framework coupled with low issuance leading to low liquidity in the secondary market, narrow investor base, inadequate credit assessment skills, high cost of issuance, lack of transparency in trades and underdevelopment of securitization of products are some of the major factors that hindered the growth of the private corporate debt market. However, many reforms have recently been made in the regulatory and legal aspects of these markets leading to some pick up in the activity in these markets. These change are presented in the market design section below:

The market design of corporate bond markets is summarized below:

| | |
|---|---|
| **Market segments** | • Bonds issued by public sector units, including public financial institutions, and<br>• Bonds issued by the private corporate sector |
| **Regulatory framework** | In January, 2007, the **regulatory jurisdiction** and market design for corporate bonds was clarified by the Government as under:<br>(a) **Agency responsible for different segments of the corporate debt market**<br>(i) SEBI is responsible for primary market (public issues as well as private placement by listed companies) for corporate debt; |

| | |
|---|---|
| | (ii) RBI is responsible for the market for repo/reverse repo transactions in corporate debt. However, if it is traded on exchanges, trading and settlement procedure would be determined by SEBI.<br>(iii) SEBI is responsible for the secondary market (OTC as well as Exchange) for the corporate debt;<br>(iv) The above framework would apply irrespective of the parties (bank or non bank involved in a transaction;<br>(v) The views in respect of trading of unlisted securities and derivatives on corporate debt (other than repo/reverse repo) are taken as and when the need arises.<br>(b) ***The market design for the secondary market of corporate debt market***<br>(i) OTC as well as exchange based transactions need to be reported to reporting platforms(s);<br>(ii) All the eligible and willing national stock exchanges need to be allowed to set up and maintain reporting platforms if they approach SEBI for the same. SEBI needs to coordinate among such reporting platforms and assign the job of coordination to a third agency;<br>(iii) The trades executed on or reported to an Exchange need not be reported to a reporting platform;<br>(iv) The participants must have a choice of platform. They may trade on OTC or any exchange trading platform;<br>(v) Existing exchanges could be used for trading of corporate debts. NSE and BSE could provide trading platforms for this purpose. There is no need to create a separate infrastructure;<br>(vi) There would be no separate trading platforms for different kinds of investors. Institutional and retail investors would trade on the same platform;<br>(vii) Only brokers would have access to trading platform of an Exchange. Banks would have the option of becoming a broker or trading through a broker. RBI, may if considered necessary restricts a bank to trade only on proprietary account as a broker. |
| **Trade reporting platforms** | BSE operationalised its reporting platform to capture information related to trading in corporate bond market in January 2007. NSE set up its reporting platform in March, 2007.<br>Further, Fixed Income Money Market and Derivatives Association of India (FIMMDA) proposed to set up a reporting platform for corporate bonds and also provide value added dissemination of information on corporate bonds as in the case of government securities. SEBI granted permission to FIMMDA and thus, its reporting platform was operationalised in September, 2007.<br>Accordingly, for reporting of OTC trades the concerned parties could opt to report their trades on any one of the three reporting platforms. |
| **Trading platforms & Clearing and Settlement** | In April, 2007 SEBI permitted both BSE and NSE to have in place corporate bond trading platforms and advised both the exchanges advises them that the stock exchanges may provide their services for clearing and settlement of corporate bonds traded or the entities trading in listed corporate debt securities may settle their trades bilaterally.<br>BSE and NSE trading platforms became operational in July 2007. Initially, trade matching platforms at BSE and NSE are order driven with the essential features of OTC market<br>In October 2009 SEBI mandated the clearing and settlement of all trades through the National Securities Clearing Corporation (NSCCL ) or the Indian Clearing Corporation Limited (ICCL). Accordingly clearing and settlement through both the clearing corporations at NSE and BSE commenced in December 2009. |

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

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

# Market Outcome

## Primary Market

### Resource Mobilization

During 2008-09, the central government and state governments borrowed Rs.3,185,500 million (US $ 62,522 million) and Rs.1,181,380 million (US $ 23,187 million) respectively. The gross borrowings of the central and state governments taken together increased by 70.59 % from Rs. 2,559,840 million (US $ 64,044 million) during 2007-08 to Rs. 4,366,880 million (US $ 85,709 million) during 2008-09 **(Table 6-4)**. Their net borrowings also increased by 108.83 % from Rs.1,657,270 million (US $ 41,463 million) in the previous year to Rs. 3,460,840 million (US $ 67,926 million) during 2008-09. The gross and net market borrowings of central government are budgeted to increase further to Rs. 4,910,440 million and Rs.4,011,390 million respectively while those of the state governments are budgeted to increased to Rs. 1,562,380 million and Rs. 1,400,000 million in the same period.

The Central Government mobilised Rs. 2,730,000 million (US $ 53,582 million) through issue of dated securities and Rs. 455,500 million (US $ 8,940 million) through issue of T-bills. After meeting repayment liabilities of Rs.440,280 million (US $ 8,641 million) for dated securities, and redemption of T-bills of Rs. 322,050 million (US $ 6,321 million), net market borrowing of Central Government amounted to Rs.2,423,170 million (US $ 47,560 million) for the year

**Table 6-4: Market Borrowings of Governments**

(Amount in Rs. mn) (Amount in US $. mn)

| | Security | Gross | | | Repayments | | | Net | | | Gross | Repay-ment | Net |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2009-2010 (BE) | 2008-09 | 2007-08 | 2009-2010 (BE) | 2008-09 | 2007-08 | 2009-2010 (BE) | 2008-09 | 2007-08 | 2008-09 | | |
| 1 | Central Government (a+b) | 4,910,440# | 3,185,500 | 1,882,050 | 899,050 | 762,330 | 787,020 | 4,011,390 | 2,423,170 | 1,095,030 | 62,522 | 14,962 | 47,560 |
| | a) Dated Securities | 4,510,930# | 2,730,000* | 1,560,000* | 531,360 | 440,280 | 453,290 | 3,979,570 | 2,289,720 | 1,106,710 | 53,582 | 8,641 | 44,941 |
| | b) 364-day T-bills | 399,510 | 455,500 | 322,050 | 367,690 | 322,050 | 333,730 | 31,820 | 133,450 | -11,680 | 8,940 | 6,321 | 2,619 |
| 2 | State Government* | 1,562,380(E) | 1,181,380 | 677,790 | 162,380 | 143,710 | 115,550 | 1,400,000 | 1,037,670 | 562,240(E) | 23,187 | 2,821 | 20,366 |
| **Total (1+2)** | | **6,472,820** | **4,366,880** | **2,559,840** | **1,061,430** | **906,040** | **902,570** | **5,411,390** | **3,460,840** | **1,657,270** | **85,709** | **17,783** | **67,926** |

BE : Budget Estimates E: Estimates

* : Includes Rs 120,000 million dequestered from the MSS cash account during 2008-09

# : Includes Rs. 330,000 million being the projected MSS dequestering for 2009-10

2008-09. The state governments collectively raised Rs. 1,181,380 million (US $ 23,187 million) during 2008-09 as against Rs. 677,790 million (US $ 16,957 million) in the preceding year. The net borrowings of State Governments in 2008-09 amounted to Rs. 1,037,670 million (US $ 20,366 million). (Table 6-4)

## Central Government Dated Securities

### *Yields and Maturity Structure*

A profile of Central Government Dated Securities is shown in (Table 6-5). The net borrowing through dated securities increased twice the amount raised in 2007-08. The weighted average yield on dated securities decreased for the first time in the last five years in 2008-09. The yield decreased from 14.90 % in 2007-08 to 13.81 % in the current year. The cut off yield varied between 5.44 % and 10.03 % in 2008-09 as against 7.55 % and 8.64 % in 2007-08.

Government has been consciously trying to lengthen maturity profile. However 2008-09 witnessed a dip in the maturity profile, the weighted average maturity of dated securities issued in this period was lower at 7.69 % than 8.12 % in the 2007-08. Around 39 % of central government borrowings were affected through securities with maturities above 10 years and 55% borrowings were effected through securities with maturities above 5 and upto 10 years.

**Table 6-5: Profile of Central Government Dated Securities**

| | Items | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
|---|---|---|---|---|---|
| | | (Amount in Rs.mn.) | | (Amount in US $ mn.) | |
| 1 | Gross Borrowing | 1,560,000 | 2730000* | 39,029 | 53,582 |
| 2 | Repayments | 453,290 | 440,280 | 11,341 | 8,641 |
| 3 | Net Borrowings | 1,106,710 | 2,289,720 | 27,689 | 44,941 |
| 4 | Weighted Average Maturity (In years) | 14.90 | 13.81 | N.A | N.A |
| 5 | Weighted Average Yield (Per cent) | 8.12 | 7.69 | N.A | N.A |
| 6 | (A) Maturity Distribution (Amount) | | | | |
| | a Upto 5 years | - | 150,000 | - | 2,944 |
| | b Above 5 and upto 10 years | 890,000 | 1,430,000 | 22,267 | 28,067 |
| | c Above 10 years | 670,000 | 1,030,000 | 16,763 | 20,216 |
| | Total | 1,560,000 | 2,610,000 | 39,029 | 51,227 |
| | (B) Maturity Distribution (Per cent) | | | | |
| | a Upto 5 years | 0 | 6 | N.A | N.A |
| | b Above 5 and upto 10 years | 57 | 55 | N.A | N.A |
| | c Above 10 years | 43 | 39 | N.A | N.A |
| | Total | 100 | 100 | N.A | N.A |
| 7 | Price based Auctions Amount | 1,500,000 | 2,420,000 | 37,528.1 | 47,498 |
| 8 | Yield - (Per cent) | | | | |
| | Minimum | 7.55 (9 years, 6 months) | 5.44 (9 years, 3 months) | N.A | N.A |
| | Maximum | 8.64 (29 years, 7 months) | 10.03 (23 years, 7 months) | N.A | N.A |

*Contd.*

*Contd.*

| Items | | 2007-08 | 2008-09 | 2007-08 | 2008-09 |
|---|---|---|---|---|---|
| | | (Amount in Rs.mn.) | | (Amount in US $ mn.) | |
| 9 | Yield - Maturity Distribution-wise | | | | |
| | (A) Less than 10 years | | | | |
| | Minimum | 7.55 (9 years, 6 months) | 5.44 (9 years, 3 months) | N.A | N.A |
| | Maximum | 8.44 (9 years, 10 months) | 9.14 (9 years, 8 months) | N.A | N.A |
| | (B) 10 years | | | | |
| | Minimum | 7.99 | 6.05 | N.A | N.A |
| | Maximum | 7.99 | 8.24 | N.A | N.A |
| | (C) Above 10 years | | | | |
| | Minimum | 7.62 (14 years) | 6.52 (26 years, 8 months) | N.A | N.A |
| | Maximum | 8.64 (29 years) | 10.03 (23 years, 7 months) | N.A | N.A |

*Note*: Figures in brackets indicate residual maturity in years.
N.A Not applicable
* Includes the amount dequestered from (MSS)- Market Stabilisaion Scheme cash account.
*Source: RBI Annual Report 2008-09*

## Secondary Market

### Turnover

The aggregate secondary market transactions in debt securities (including government and non-government securities) increased by 11.0 % to Rs. 62,713,470 million (US $ 1,230,883 million) in 2008-09 from Rs. 56,495,743 million (US $ 1,407,893 million) in 2007-08. Non-government securities accounted for a meager 0.73% of total turnover in debt market. NSE accounted for about 5 % of total turnover in debt securities during 2008-09. **(Table 6-6)**.

**Table 6-6: Turnover of Debt Securities**

| Securities | 2007-08 | 2008-09 | April-June 2009 | 2007-08 | 2008-09 | April-June 2009 |
|---|---|---|---|---|---|---|
| | (Rs. mn.) | | | (US $ mn.) | | |
| **Government Securities*** | **56,273,470** | **62,254,360** | **16,576,430** | **1,407,893** | **1,221,872** | **346,280** |
| WDM Segment of NSE | 2,604,088 | 2,911,124 | 999,289 | 65,151 | 57,137 | 20,875 |
| Rest of SGL | 53,669,382 | 59,343,816 | 15,577,141 | 1,342,742 | 1,164,746 | 325,405 |
| **Non Government Securities** | **222,273** | **459,110** | **309,024** | **5,561** | **9,011** | **6,455** |
| CM Segment of NSE | 845 | 1,005 | 683 | 21 | 20 | 14 |
| WDM Segment of NSE | 219,082 | 448,391 | 305,576 | 5,481 | 8,801 | 6,383 |
| 'F' Category of BSE | 2,346 | 9,714 | 2,765 | 59 | 191 | 58 |
| **Total** | **56,495,743** | **62,714,050** | **16,885,454** | **1,413,454** | **1,230,894** | **352,736** |

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

The non-government securities are traded on the WDM and CM segments of the NSE, and on the BSE (F Category). Except WDM, the volumes are quite insignificant on other segments. The turnover in non-government securities on WDM segment of NSE was Rs. 448,391 million (US $ 8,801 million) in 2008-09, higher by 104.67% than that during the preceding year. BSE reported a turnover of Rs.9,714 million (US $ 191 million) during 2008-09. NSE accounted for 97.88% of total turnover in non-government securities during the year.

The aggregate turnover in (central and state government dated securities and T-bills) through non-repo SGL transactions touched a level of Rs.6,645,488 million (US $ 130,432 million) in 2008-09 recording an increase of 32.83% from Rs. 5,003,047million (US $ 125,170 million) in the previous year **(Table 6-7)**. The monthly turnover in non-repo transactions for the year 2008-09 ranged between Rs. 280,244 million (US $ 5,500) and Rs. 984,006 million (US $ ,726 million). The average turnover during 2008-09 amounted to Rs. 553,791 million (US $ 10,869).

**Table 6-7: Secondary Market Transactions in Government Securities**

| Month/ Year | SGL Non-Repo Transactions | | | | Share in Non-Repo Turnover (%) | |
|---|---|---|---|---|---|---|
| | GOI Securities | Treasury Bills | Total (1+2) | Total (1+2) (US $ mn.) | GOI Securities | T-Bills |
| | (Rs in mn.) | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| **1994-95** | 115,860 | 97,210 | 213,070 | 6,779 | 54.38 | 45.62 |
| **1995-96** | 180,170 | 115,130 | 295,300 | 8,597 | 61.01 | 38.99 |
| **1996-97** | 604,990 | 334,220 | 939,210 | 26,176 | 64.41 | 35.59 |
| **1997-98** | 1,198,890 | 412,010 | 1,610,900 | 40,751 | 74.42 | 25.58 |
| **1998-99** | 1,446,410 | 428,900 | 1,875,310 | 44,197 | 77.13 | 22.87 |
| **1999-00** | 4,089,160 | 475,750 | 4,564,910 | 104,651 | 89.58 | 10.42 |
| **2000-01** | 5,120,836 | 600,620 | 5,721,456 | 122,673 | 89.50 | 10.50 |
| **2001-02** | 11,446,342 | 673,316 | 12,119,658 | 248,354 | 94.44 | 5.56 |
| **2002-03** | 13,155,989 | 767,845 | 13,923,834 | 293,133 | 94.49 | 5.51 |
| **2003-04** | 15,813,076 | 1,200,556 | 17,013,632 | 392,110 | 92.94 | 7.06 |
| **2004-05** | 9,897,351 | 2,711,314 | 12,608,665 | 288,198 | 78.50 | 21.50 |
| **2005-06** | 4,986,040 | 2,094,107 | 12,066,187 | 270,482 | 41.32 | 17.36 |
| **2006-07** | **2,747,384** | **1,235,603** | **3,982,988** | **91,374** | **68.98** | **31.02** |
| **2007-08** | **3,541,760** | **1,461,287** | **5,003,047** | **125,170** | **70.79** | **29.21** |
| Apr-08 | 329,338 | 81,756 | 411,094 | 8,069 | 80.11 | 19.89 |
| May-08 | 301,869 | 66,964 | 368,833 | 7,239 | 81.84 | 18.16 |
| Jun-08 | 519,832 | 65,194 | 585,027 | 11,482 | 88.86 | 11.14 |
| Jul-08 | 344,634 | 63,687 | 408,321 | 8,014 | 84.40 | 15.60 |
| Aug-08 | 216,372 | 63,872 | 280,244 | 5,500 | 77.21 | 22.79 |
| Sep-08 | 274,300 | 99,661 | 373,961 | 7,340 | 73.35 | 26.65 |
| Oct-08 | 289,124 | 82,303 | 371,427 | 7,290 | 77.84 | 22.16 |

*Contd.*

*Contd.*

| Month/ Year | SGL Non-Repo Transactions | | | | Share in Non-Repo Turnover (%) | |
|---|---|---|---|---|---|---|
| | GOI Securities | Treasury Bills | Total (1+2) | Total (1+2) (US $ mn.) | GOI Securities | T-Bills |
| | (Rs in mn.) | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Nov-08 | 381,847 | 134,028 | 515,876 | 10,125 | 74.02 | 25.98 |
| Dec-08 | 810,273 | 153,319 | 963,591 | 18,912 | 84.09 | 15.91 |
| Jan-09 | 634,171 | 128,725 | 762,896 | 14,973 | 83.13 | 16.87 |
| Feb-09 | 480,742 | 139,471 | 620,213 | 12,173 | 77.51 | 22.49 |
| Mar-09 | 845,247 | 138,758 | 984,006 | 19,313 | 85.90 | 14.10 |
| **2008-09** | **5,427,749** | **1,217,740** | **6,645,488** | **130,432** | **81.68** | **18.32** |
| Apr-09 | 611,609 | 203,000 | 814,609 | 17,017 | 75.08 | 24.92 |
| May-09 | 567,630 | 191,381 | 759,010 | 15,856 | 74.79 | 25.21 |
| Jun-09 | 541,885 | 211,564 | 753,449 | 15,739 | 71.92 | 28.08 |
| **April-June 09** | **1,721,123** | **605,945** | **2,327,069** | **48,612** | **73.96** | **26.04** |

*Source : NSE*
**excludes NDS-OM turnover*

The share of WDM segment of NSE in the total turnover of non-repo SGL transaction witnessed a decrease in 2008-09. It accounted for a share of 43.81% as against 52.06% in the preceding year. **(Table 6-8)**. The share of WDM in turnover of non-repo dated securities (central and state government securities) also witnessed a decrease from 54.89% in 2007-08 to 43.16% in 2008-09 **(Chart 6-1)** The share of WDM in turnover of non-repo T-bills has rose to 46.66 % as compared to 45.16 % in the corresponding period.

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

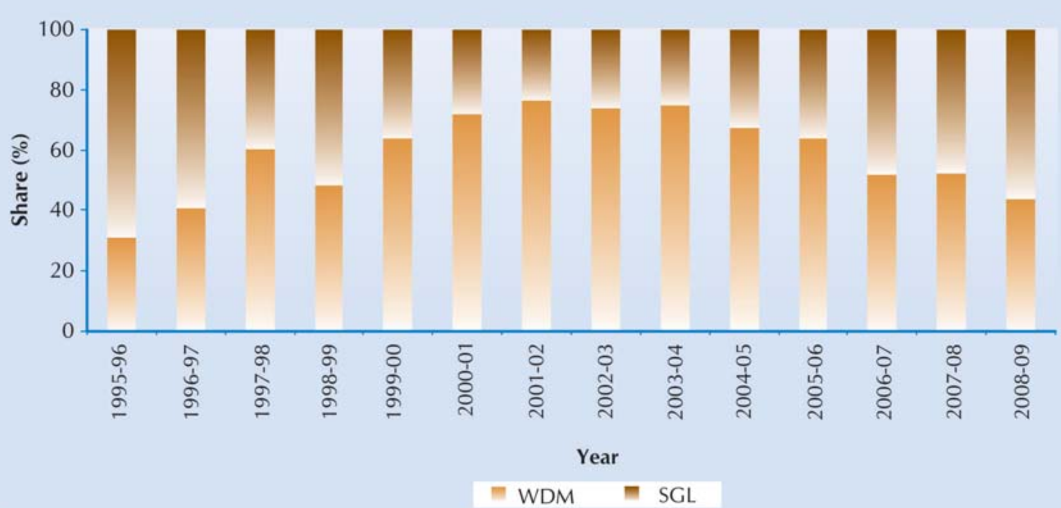


**Table 6-8: Share of WDM in Transactions of Government Securities**

| Year | Turnover of Non-Repo Govt Securities | | | Turnover of Non-Repo Central & State Govt Sec. | | | Turnover of Non-Repo T-Bills | | |
|---|---|---|---|---|---|---|---|---|---|
| | On SGL (Rs.mn) | On WDM (Rs.mn) | Share of WDM (%) | On SGL (Rs.mn) | On WDM (Rs.mn) | Share of WDM (%) | On SGL (Rs.mn) | On WDM (Rs.mn) | Share of WDM (%) |
| 1995-96 | 295,300 | 92,433 | 31.30 | 180,170 | 69,885 | 6.97 | 115,130 | 22,548 | 19.58 |
| 1996-97 | 939,210 | 381,023 | 40.57 | 604,990 | 271,902 | 31.84 | 334,220 | 109,121 | 32.65 |
| 1997-98 | 1,610,900 | 975,152 | 60.53 | 1,198,890 | 804,943 | 60.21 | 412,010 | 170,209 | 41.31 |
| 1998-99 | 1,875,310 | 904,158 | 48.21 | 1,446,410 | 798,295 | 46.29 | 428,900 | 105,863 | 24.68 |
| 1999-00 | 4,564,910 | 2,915,915 | 63.88 | 4,089,160 | 2,809,475 | 58.37 | 475,750 | 106,440 | 22.37 |
| 2000-01 | 5,721,456 | 4,124,958 | 72.10 | 5,120,836 | 3,893,523 | 62.94 | 600,620 | 231,435 | 38.53 |
| 2001-02 | 12,119,658 | 9,269,955 | 76.49 | 11,446,342 | 9,015,121 | 60.91 | 673,316 | 254,834 | 37.85 |
| 2002-03 | 13,923,834 | 10,305,497 | 74.01 | 13,155,989 | 9,991,507 | 55.42 | 767,845 | 313,990 | 40.89 |
| 2003-04 | 17,013,632 | 12,741,190 | 74.89 | 15,813,076 | 12,185,221 | 49.01 | 1,200,556 | 555,969 | 46.31 |
| 2004-05 | 12,608,667 | 8,493,250 | 67.36 | 9,902,244 | 7,246,655 | 73.18 | 2,706,422 | 1,246,595 | 46.06 |
| 2005-06 | 7,080,147 | 4,508,016 | 63.67 | 4,986,040 | 3,455,832 | 69.31 | 2,094,107 | 1,052,184 | 50.24 |
| 2006-07 | 3,982,988 | 2,053,237 | 51.55 | 2,747,384 | 1,533,697 | 55.82 | 1,235,603 | 519,540 | 42.05 |
| 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 |
| **2007-08** | **5,003,047** | **2,604,088** | **52.05** | **3,541,760** | **1,944,140** | **54.89** | **1,461,287** | **659,948** | **45.16** |
| Apr-08 | 411,094 | 172,170 | 41.88 | 329,338 | 134,664 | 40.89 | 81,756 | 37,506 | 45.88 |
| May-08 | 368,833 | 186,574 | 50.58 | 301,869 | 162,926 | 53.97 | 66,964 | 23,647 | 35.31 |
| Jun-08 | 585,027 | 151,718 | 25.93 | 519,832 | 120,263 | 23.14 | 65,194 | 31,455 | 48.25 |
| Jul-08 | 408,321 | 168,657 | 41.31 | 344,634 | 138,313 | 40.13 | 63,687 | 30,344 | 47.65 |
| Aug-08 | 280,244 | 108,868 | 38.85 | 216,372 | 82,434 | 38.10 | 63,872 | 26,434 | 41.39 |
| Sep-08 | 373,961 | 180,664 | 48.31 | 274,300 | 128,545 | 46.86 | 99,661 | 52,119 | 52.30 |
| Oct-08 | 371,427 | 176,952 | 47.64 | 289,124 | 138,594 | 47.94 | 82,303 | 38,358 | 46.61 |
| Nov-08 | 515,876 | 214,855 | 41.65 | 381,847 | 165,256 | 43.28 | 134,028 | 49,599 | 37.01 |
| Dec-08 | 963,591 | 396,764 | 41.18 | 810,273 | 327,247 | 40.39 | 153,319 | 69,517 | 45.34 |
| Jan-09 | 762,896 | 379,858 | 49.79 | 634,171 | 337,343 | 53.19 | 128,725 | 42,515 | 33.03 |
| Feb-09 | 620,213 | 352,049 | 56.76 | 480,742 | 270,528 | 56.27 | 139,471 | 81,521 | 58.45 |
| Mar-09 | 984,006 | 421,995 | 42.89 | 845,247 | 336,770 | 39.84 | 138,758 | 85,225 | 61.42 |
| **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** |
| Apr-09 | 814,609 | 321,544 | 39.47 | 611,609 | 251,838 | 41.18 | 203,000 | 69,706 | 34.34 |
| May-09 | 759,010 | 309,475 | 40.77 | 567,630 | 247,862 | 43.67 | 191,381 | 61,613 | 32.19 |
| Jun-09 | 753,449 | 368,271 | 48.88 | 541,885 | 289,787 | 53.48 | 211,564 | 78,484 | 37.10 |
| **April-June 09** | **2,327,069** | **999,289** | **42.94** | **1,721,123** | **789,487** | **45.87** | **605,945** | **209,802** | **34.62** |

*Source: NSE.*

## Settlement of Trades in Government Securities

During 2008-09, 270,244 trades in government securities amounting to Rs.62,545,192 million (USD $ 1,227,580) were settled by CCIL . Out of the total trades, 91% of the trades were outright transactions and the rest were repo. **(Table 6-9).**

**Table 6-9: Settlement of Trades in Government Securities**

| Month | Non Repo Transactions | | Repo Transactions | | Total | | |
|---|---|---|---|---|---|---|---|
| | No. of Trades | Amount (Face Value in Rs.mn) | No. of Trades | Amount (Face Value in Rs.mn) | No. of Trades | Amount (Face Value in Rs.mn) | Amount (Face Value in US$.mn) |
| 2001-02 | 7,131 | 389,190 | 524 | 159,300 | 7,655 | 548,480 | 11,239 |
| 2002-03 | 191,843 | 10,761,470 | 11,672 | 4,682,290 | 203,515 | 15,443,760 | 325,132 |
| 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 |
| April-June 2008 | 39,161 | 3,612,876 | 5,648 | 9,940,022 | 44,809 | 13,552,898 | 315,551 |
| **2008-09** | **245,964** | **21,602,334** | **24,280** | **40,942,858** | **270,244** | **62,545,192** | **1,227,580** |
| **April-June 2009** | **83,736** | **7,934,332** | **7,934** | **15,137,353** | **91,670** | **23,071,685** | **481,965** |

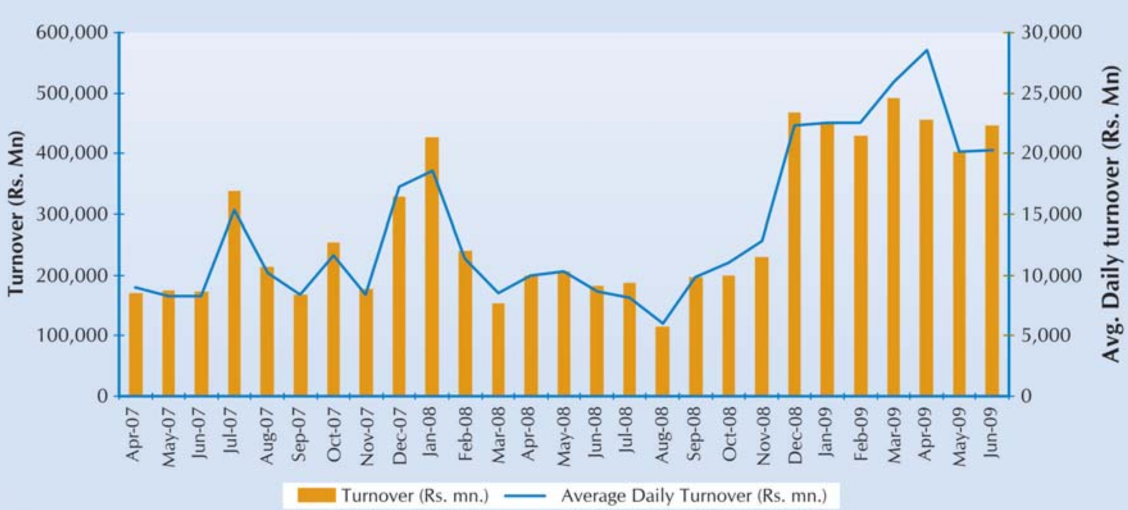
*Source:CCIL Fact Book*

## Developments in WDM Segment of NSE

As at end March 2009, 3,954 securities were available for trading on the WDM Segment, of which 711 securities were active during 2008-09 as compared to 601 in the previous year. During 2008-09, the turnover in the WDM segment of NSE registered an increase of 18.99% to Rs.3,359,515 million (US$ 65,937 million) from Rs. 2,823,170 million (US$ 70,632 million) in 2007-08. The average daily turnover also increased from Rs. 11,380 million (US $ 287.71 million) to Rs. 14,116 million (US$ 277.05 million) during the same period.

The summary statement of business growth of WDM segment is presented in Annexure 6-1 and Chart 6-2. The highest turnover of Rs. 492,055 million (US $ 9,658 million) was witnessed in March 2009. The average daily turnover ranged between Rs.6,054 million (US $ 119 million) and Rs. 25,898 million (US $ 508 million).

**Chart 6-2: Business Growth of WDM Segment**



## Securities Profile

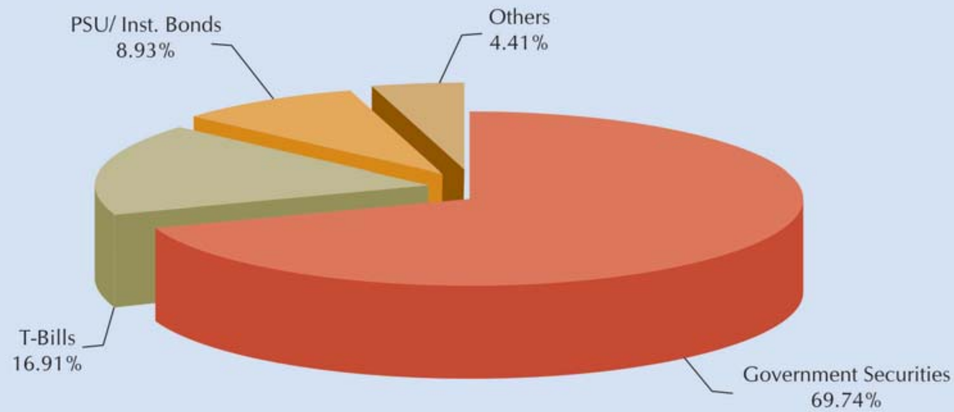
Long-term securities dominated the market during 2008-09 revealing the interest of investors to hold on to long term of assets. The turnover in Government securities increased by 20.55% in 2008-09 as compared to the previous year, and accounted for a turnover of Rs.2,342,908 million (US $ 45,984 million). Its share in total turnover was 69.74% in the 2008-09. (Table 6-10). The share of T-Bills in WDM turnover accounted for a share of 16.97% during 2008-09. (Chart 6-3).

**Table 6-10: Security-wise Distribution of WDM Turnover**

| Month/Year | Turnover (in Rs. 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** |
| Apr-08 | 134,664 | 37,506 | 18,860 | 7,898 | 198,928 | 67.70 | 18.85 | 9.48 | 3.97 |
| May-08 | 162,926 | 23,647 | 12,005 | 7,984 | 206,563 | 78.88 | 11.45 | 5.81 | 3.86 |
| Jun-08 | 120,263 | 31,455 | 16,543 | 14,073 | 182,334 | 65.96 | 17.25 | 9.08 | 7.71 |
| Jul-08 | 138,313 | 30,344 | 5,531 | 13,260 | 187,448 | 73.79 | 16.19 | 2.95 | 7.07 |
| Aug-08 | 82,434 | 26,434 | 3,770 | 2,379 | 115,017 | 71.67 | 22.98 | 3.28 | 2.07 |
| Sep-08 | 128,545 | 52,119 | 9,393 | 7,738 | 197,794 | 64.99 | 26.35 | 4.75 | 3.91 |
| Oct-08 | 138,594 | 38,358 | 18,873 | 3,837 | 199,662 | 69.41 | 19.21 | 9.45 | 1.92 |
| Nov-08 | 165,256 | 49,599 | 9,650 | 6,926 | 231,431 | 71.41 | 21.43 | 4.17 | 2.99 |
| Dec-08 | 327,247 | 69,517 | 50,930 | 20,950 | 468,644 | 69.83 | 14.83 | 10.87 | 4.47 |
| Jan-09 | 337,343 | 42,515 | 51,599 | 18,695 | 450,152 | 74.94 | 9.44 | 11.46 | 4.15 |
| Feb-09 | 270,528 | 81,519 | 52,867 | 24,574 | 429,487 | 62.99 | 18.98 | 12.31 | 5.72 |
| Mar-09 | 336,770 | 85,225 | 50,061 | 19,999 | 492,055 | 68.44 | 17.32 | 10.17 | 4.06 |
| **2008-09** | **2,342,884** | **568,239** | **300,080** | **148,313** | **3,359,515** | **69.74** | **16.91** | **8.93** | **4.41** |
| Apr-09 | 251,838 | 69,706 | 92,146 | 42,839 | 456,529 | 55.16 | 15.27 | 20.18 | 9.39 |
| May-09 | 247,862 | 61,613 | 63,086 | 30,097 | 402,658 | 61.56 | 15.30 | 15.66 | 7.47 |
| Jun-09 | 289,787 | 78,484 | 52,822 | 24,586 | 445,679 | 65.02 | 17.61 | 11.85 | 5.52 |
| **April-June 09** | **789,487** | **209,802** | **208,054** | **97,522** | **1,304,865** | **60.50** | **16.08** | **15.94** | **7.47** |

*Source : NSE*

Chart 6-3: Security-wise Distribution of Turnover, 2008-09

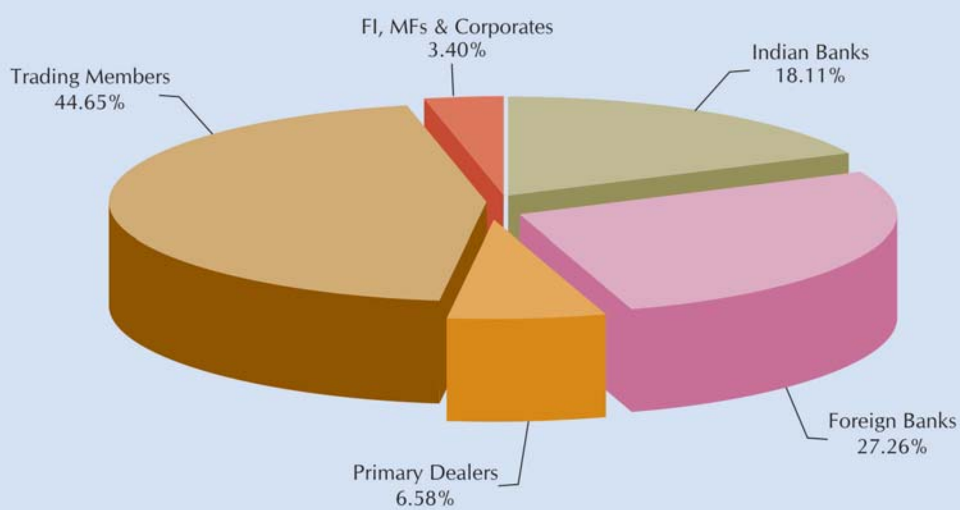



The share of top '10' securities has decreased to 43.05% in 2008-09 as compared to 53.31% in 2007-08 (Table 6-12). The share of top '100' securities increased substantially to 83..87% as against 49.55% during 2007-08. Top 50 securities accounted for 72.45 % of turnover in 2008-09.

## Participant Profile

Indian banks, foreign banks and PDs together accounted for over 51.95% of WDM turnover during 2008-09 and 49.18% of the WDM turnover during April-June 2009. The share of the Indian banks fell from 23.78% in 2007-08 to 18.11% in 2008-09. The trading member's contribution was the highest at 44.65% during 2008-09. (Table 6-11 and Chart 6-4)

Chart 6-4: Participant-wise Distribution of Turnover, 2008-09



### Table 6-11: Participant wise Distribution of WDM Turnover

(In per cent)

| Month/Year | Turnover | | | | |
|---|---|---|---|---|---|
| | Trading Members | FIs/MFs/ Corporates | Primary Dealers | Indian Banks | Foreign Banks |
| **1994-95 (June-March)** | 57.82 | 6.43 | 0.02 | 14.16 | 21.57 |
| **1995-96** | 23.48 | 7.60 | 1.16 | 30.07 | 37.69 |
| **1996-97** | 22.95 | 3.81 | 6.10 | 30.01 | 37.13 |
| **1997-98** | 19.75 | 4.30 | 12.06 | 41.24 | 22.65 |
| **1998-99** | 15.48 | 4.93 | 14.64 | 42.12 | 22.83 |
| **1999-00** | 18.63 | 4.18 | 19.42 | 42.72 | 15.05 |
| **2000-01** | 23.24 | 4.18 | 22.14 | 33.54 | 16.90 |
| **2001-02** | 23.52 | 4.16 | 22.50 | 36.60 | 13.22 |
| **2002-03** | 24.81 | 3.77 | 22.03 | 38.77 | 10.62 |
| **2003-04** | 34.80 | 4.56 | 17.03 | 36.36 | 7.25 |
| **2004-05** | 33.96 | 5.14 | 18.50 | 29.89 | 12.51 |
| **2005-06** | 32.01 | 3.92 | 21.89 | 28.07 | 14.11 |
| **2006-07** | 30.88 | 2.70 | 19.82 | 26.03 | 20.57 |
| **2007-08** | 38.15 | 2.34 | 8.64 | 23.78 | 27.09 |
| Apr-08 | 35.27 | 2.01 | 5.54 | 16.25 | 40.93 |
| May-08 | 27.03 | 1.75 | 8.42 | 26.82 | 35.98 |
| Jun-08 | 37.05 | 1.81 | 4.61 | 18.13 | 38.40 |
| Jul-08 | 46.66 | 0.93 | 7.63 | 18.61 | 26.17 |
| Aug-08 | 46.81 | 0.95 | 9.25 | 16.14 | 26.85 |
| Sep-08 | 50.40 | 0.68 | 3.92 | 15.44 | 29.56 |
| Oct-08 | 37.24 | 6.17 | 8.70 | 18.80 | 29.09 |
| Nov-08 | 36.93 | 6.20 | 6.57 | 16.10 | 34.20 |
| Dec-08 | 48.86 | 4.39 | 9.70 | 20.86 | 16.19 |
| Jan-09 | 47.40 | 3.05 | 7.58 | 11.97 | 30.00 |
| Feb-09 | 49.53 | 3.50 | 5.62 | 16.26 | 25.09 |
| Mar-09 | 50.95 | 4.67 | 3.10 | 21.84 | 19.44 |
| **2008-09** | **44.65** | **3.40** | **6.58** | **18.11** | **27.26** |
| Apr-09 | 51.19 | 2.98 | 6.08 | 17.05 | 22.70 |
| May-09 | 47.44 | 3.12 | 4.77 | 19.01 | 25.66 |
| Jun-09 | 44.66 | 2.96 | 5.30 | 18.60 | 28.48 |
| **April-June 09** | **47.80** | **3.02** | **5.41** | **18.18** | **25.59** |

*Source : NSE*

Top '50' trading members accounted for the total turnover of WDM in 2008-09, which is indicative of the narrow membership structure of WDM segment (Table 6-12). As on June 30, 2009, there were 63 members on the WDM segment.

**Table 6-12: Share of Top 'N' Securities/Trading Members/ Participants in Turnover in WDM Segment**

| Year | In Percent | | | | |
|---|---|---|---|---|---|
| | Top 5 | Top 10 | Top 25 | Top 50 | Top 100 |
| **Securities** | | | | | |
| 1994-95 | 42.84 | 61.05 | 80.46 | 89.81 | 97.16 |
| 1995-96 | 57.59 | 69.46 | 79.60 | 86.58 | 93.24 |
| 1996-97 | 32.93 | 48.02 | 65.65 | 78.32 | 90.17 |
| 1997-98 | 30.65 | 46.92 | 71.25 | 85.00 | 92.15 |
| 1998-99 | 26.81 | 41.89 | 64.30 | 78.24 | 86.66 |
| 1999-00 | 37.11 | 55.57 | 82.12 | 90.73 | 95.28 |
| 2000-01 | 42.20 | 58.30 | 80.73 | 89.97 | 95.13 |
| 2001-02 | 51.61 | 68.50 | 88.73 | 94.32 | 97.19 |
| 2002-03 | 43.10 | 65.15 | 86.91 | 92.74 | 96.13 |
| 2003-04 | 37.06 | 54.43 | 81.58 | 90.66 | 95.14 |
| 2004-05 | 43.70 | 57.51 | 71.72 | 80.59 | 89.55 |
| 2005-06 | 47.42 | 59.78 | 72.02 | 81.04 | 89.36 |
| 2006-07 | 40.90 | 51.29 | 65.82 | 77.15 | 86.91 |
| **2007-08** | **39.65** | **53.31** | **68.35** | **79.64** | **49.55** |
| **2008-09** | **31.31** | **43.05** | **60.42** | **72.45** | **83.87** |
| **April-June 09** | **23.80** | **36.52** | **56.63** | **71.36** | **84.24** |
| **Trading Members** | | | | | |
| 1994-95 | 51.99 | 73.05 | 95.37 | 100.00 | – |
| 1995-96 | 44.36 | 68.58 | 96.10 | 100.00 | – |
| 1996-97 | 30.02 | 51.27 | 91.57 | 99.96 | 100.00 |
| 1997-98 | 27.17 | 47.85 | 83.38 | 99.82 | 100.00 |
| 1998-99 | 29.87 | 50.45 | 86.55 | 99.98 | 100.00 |
| 1999-00 | 32.38 | 53.41 | 84.46 | 100.00 | – |
| 2000-01 | 35.17 | 54.25 | 86.82 | 100.00 | – |
| 2001-02 | 35.18 | 58.68 | 88.36 | 100.00 | – |
| 2002-03 | 31.77 | 53.71 | 85.49 | 100.00 | – |
| 2003-04 | 30.72 | 53.01 | 86.71 | 100.00 | – |
| 2004-05 | 35.75 | 56.84 | 86.74 | 100.00 | – |
| 2005-06 | 39.68 | 60.63 | 89.38 | 100.00 | – |
| 2006-07 | 57.75 | 78.01 | 96.43 | 100.00 | – |
| **2007-08** | **65.32** | **80.24** | **97.60** | **100.00** | **–** |
| **2008-09** | **69.92** | **82.89** | **98.38** | **100.00** | **–** |
| **April-June 09** | **74.78** | **87.35** | **99.06** | **100.00** | **–** |
| **Participants** | | | | | |
| 1994-95 | 18.37 | 27.38 | 38.40 | 42.20 | – |
| 1995-96 | 29.66 | 47.15 | 70.49 | 76.32 | 76.58 |
| 1996-97 | 25.27 | 44.92 | 67.00 | 76.33 | 77.10 |
| 1997-98 | 23.60 | 38.96 | 65.59 | 77.96 | 80.22 |
| 1998-99 | 22.47 | 37.39 | 62.79 | 79.27 | 84.51 |
| 1999-00 | 15.54 | 27.87 | 52.51 | 74.76 | 81.32 |

*Contd.*

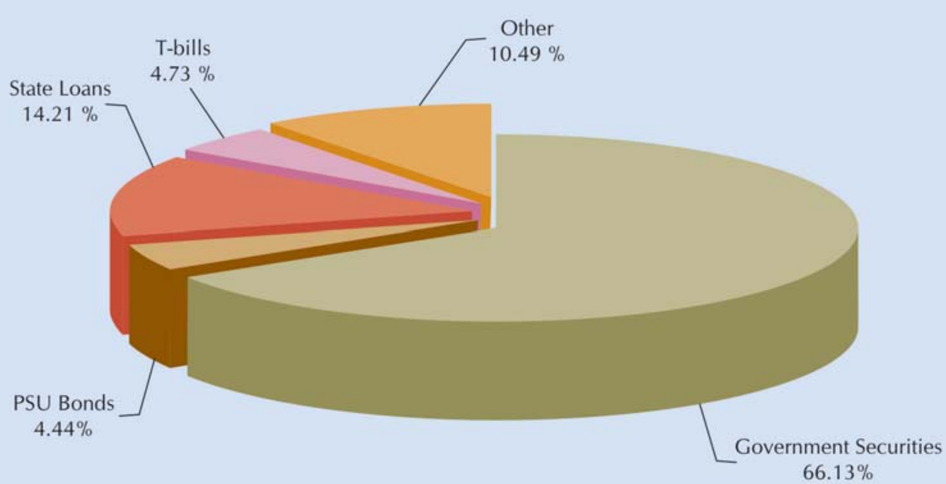
*Contd.*

| Year | In Percent | | | | |
|---|---|---|---|---|---|
| | Top 5 | Top 10 | Top 25 | Top 50 | Top 100 |
| 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** |
| **April-June 09** | **23.38** | **36.15** | **49.05** | **52.17** | **-** |

## Market Capitalisation

Market capitalisation of the WDM segment has witnessed a constant increase. The total market capitalisation of securities available for trading on WDM segment stood at Rs.28,483,155 million (US $ 559,041 million) as at end-March 2009, registering a growth of 34.14% over end-March 2008. The market capitalisation at the end of June 2009 was Rs.30,759,049 million (US$ 642,554 million). The relative shares of different securities in market capitalization maintained the trend of 2007-08 with the Government securities accounting for the highest share of 64.95% of total market capitalisation at the end of March 2009 (Chart 6-5). The growth of market capitalisation of WDM is presented in Table 6-13

**Chart 6-5: Market Capitalisation of WDM Segment at the end of June 2009**




## Corporate Bonds Turnover

Table 6-14 presents number of trades and turnover in corporate bonds on NSE, BSE and OTC. The number of trades on NSE increased by 29.44% from 3787 in 2007-08 to 4909 in the current fiscal. The volumes also witnessed an increase of 57.39% during the same period.

Table 6-13: Market Capitalisation of WDM Securities

| Month/Year (end of period) | Market Capitalisation (In Rs. mn.) | | | | | | | (In per cent) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Govt. Securities | PSU bonds | State loans | T-bills | Others | Total | Total (US $ mn.) | Govt. securities | PSU bonds | State loans | T-bills | Others |
| Mar-00 | 3,198,650 | 393,570 | 394,770 | 153,450 | 799,890 | 4,940,330 | 113,257 | 64.75 | 7.97 | 7.99 | 3.11 | 16.19 |
| Mar-01 | 3,972,280 | 363,650 | 446,240 | 177,250 | 848,940 | 5,808,360 | 124,536 | 68.39 | 6.26 | 7.68 | 3.05 | 14.62 |
| Mar-02 | 5,426,010 | 399,440 | 613,850 | 238,490 | 890,160 | 7,567,950 | 155,081 | 71.70 | 5.28 | 8.11 | 3.15 | 11.76 |
| Mar-03 | 6,580,017 | 383,828 | 720,940 | 349,188 | 610,839 | 8,644,812 | 181,996 | 76.12 | 4.44 | 8.34 | 4.04 | 7.06 |
| Mar-04 | 9,593,017 | 568,319 | 793,403 | 326,920 | 876,979 | 12,158,638 | 280,218 | 78.90 | 4.67 | 6.53 | 2.69 | 7.21 |
| Mar-05 | 10,061,070 | 683,981 | 2,232,082 | 735,018 | 905,193 | 14,617,344 | 334,111 | 68.83 | 4.68 | 15.27 | 5.03 | 6.19 |
| Mar-06 | 10,597,890 | 887,160 | 2,419,270 | 701,860 | 1,069,560 | 15,675,740 | 351,395 | 67.61 | 5.66 | 15.43 | 4.48 | 6.82 |
| Mar-07 | 11,822,777 | 896,275 | 2,498,474 | 1,151,827 | 1,478,652 | 17,848,006 | 409,452 | 66.24 | 5.02 | 14.00 | 6.45 | 8.28 |
| **Mar-08** | **13,922,192** | **962,685** | **3,156,607** | **1,115,621** | **2,076,357** | **21,233,463** | **531,235** | **65.57** | **4.53** | **14.87** | **5.25** | **9.77** |
| Apr-08 | 14,376,427 | 985,243 | 3,147,158 | 1,102,799 | 2,074,881 | 21,686,508 | 425,643 | 66.29 | 4.54 | 14.51 | 5.09 | 9.57 |
| May-08 | 14,387,430 | 988,451 | 3,179,717 | 1,264,692 | 2,101,541 | 21,921,831 | 430,262 | 65.63 | 4.51 | 14.50 | 5.77 | 9.59 |
| Jun-08 | 14,340,716 | 1,010,848 | 3,170,955 | 1,330,607 | 2,096,483 | 21,949,609 | 430,807 | 65.33 | 4.61 | 14.45 | 6.06 | 9.55 |
| Jul-08 | 14,243,690 | 1,012,002 | 3,198,269 | 1,334,877 | 2,078,429 | 21,867,267 | 429,191 | 65.14 | 4.63 | 14.63 | 6.10 | 9.50 |
| Aug-08 | 14,553,971 | 1,038,658 | 3,224,469 | 1,337,684 | 2,101,167 | 22,255,949 | 436,819 | 65.39 | 4.67 | 14.49 | 6.01 | 9.44 |
| Sep-08 | 14,715,649 | 1,083,301 | 3,254,749 | 1,351,873 | 2,137,082 | 22,542,655 | 442,447 | 65.28 | 4.81 | 14.44 | 6.00 | 9.48 |
| Oct-08 | 15,358,258 | 1,089,216 | 3,242,175 | 1,416,801 | 2,189,593 | 23,296,043 | 457,233 | 65.93 | 4.68 | 13.92 | 6.08 | 9.40 |
| Nov-08 | 16,219,418 | 1,111,780 | 3,329,232 | 1,461,541 | 2,303,720 | 24,425,692 | 479,405 | 66.40 | 4.55 | 13.63 | 5.98 | 9.43 |
| Dec-08 | 18,082,701 | 1,191,653 | 3,447,210 | 1,418,878 | 2,548,718 | 26,689,159 | 523,830 | 67.75 | 4.46 | 12.92 | 5.32 | 9.55 |
| Jan-09 | 18,481,281 | 1,290,699 | 3,642,041 | 1,451,215 | 2,653,641 | 27,518,876 | 540,115 | 67.16 | 4.69 | 13.23 | 5.27 | 9.64 |
| Feb-09 | 18,686,841 | 1,296,090 | 3,768,197 | 1,443,362 | 2,905,377 | 28,099,867 | 551,518 | 66.50 | 4.61 | 13.41 | 5.14 | 10.34 |
| **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** | **1,365,869** | **4,369,455** | **1,453,911** | **3,228,187** | **30,759,049** | **642,554** | **66.13** | **4.44** | **14.21** | **4.73** | **10.50** |

**Table 6-14: Secondary Market Corporate Bond Trades at the Exchanges and OTC**

| Month/ Year | BSE | | NSE | | FIMMDA | |
|---|---|---|---|---|---|---|
| | No. of trades | Amount (Rs. Mn) | No. of trades | Amount (Rs. Mn) | No. of trades | Amount (Rs. Mn) |
| **2007-08** | **27,697** | **411,870** | **3,787** | **314,530** | **4,089** | **234,790** |
| **2008-09** | **417,376** | **380,580** | **4,902** | **495,050** | **9,585** | **615,350** |
| Apr-08 | 1,912 | 26,900 | 213 | 27,680 | 714 | 46,150 |
| May-08 | 1,804 | 42,070 | 256 | 21,340 | 780 | 37,150 |
| Jun-08 | 2,067 | 35,870 | 397 | 32,770 | 884 | 32,990 |
| Jul-08 | 1,462 | 14,010 | 181 | 22,260 | 638 | 29,100 |
| Aug-08 | 3,012 | 12,110 | 73 | 8,650 | 590 | 21,740 |
| Sep-08 | 42,243 | 26,520 | 187 | 25,520 | 738 | 43,730 |
| Oct-08 | 75,925 | 25,170 | 244 | 25,540 | 741 | 27,310 |
| Nov-08 | 70,671 | 16,110 | 147 | 18,590 | 508 | 20,660 |
| Dec-08 | 73,310 | 57,870 | 889 | 78,120 | 1,096 | 115,040 |
| Jan-09 | 58,507 | 65,050 | 757 | 78,980 | 1,111 | 122,060 |
| Feb-09 | 41,225 | 27,420 | 753 | 81,190 | 749 | 55,360 |
| Mar-09 | 45,238 | 31,480 | 805 | 74,410 | 1,036 | 64,070 |

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

## Yields

The yields (yield-to-maturity) on government and corporate securities of different maturities of 0-1 year, 5-6 years, 9-10 years and above 10 years are presented in (Table 6-15). The yields on government and corporate securities showed a downward trend towards the end of 2008-09.

**Table 6-15: Yields on Government and Corporate Securities**

(In per cent)

| 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-07 | 7.34 | 8.14 | 8.14 | 8.45 | 9.60 | 10.53 | 10.04 | 10.12 |
| May-07 | 7.30 | 8.02 | 8.17 | 8.39 | 9.72 | 10.30 | 10.00 | 10.04 |
| Jun-07 | 7.02 | 7.90 | 8.23 | 8.49 | 8.63 | 10.11 | 10.08 | 10.30 |
| Jul-07 | 5.24 | 7.26 | 7.86 | 8.17 | 7.46 | 8.78 | 9.65 | 9.52 |
| Aug-07 | 6.73 | 7.69 | 7.90 | 8.30 | 8.78 | 9.42 | 9.57 | 9.69 |
| Sep-07 | 7.10 | 7.68 | 7.83 | 8.34 | 8.74 | 9.36 | 9.97 | 9.91 |
| Oct-07 | 6.97 | 7.72 | 7.87 | 8.40 | 8.42 | 9.17 | 9.58 | 9.62 |
| Nov-07 | 7.47 | 7.77 | 7.90 | 8.28 | 0.00 | 9.09 | 9.45 | 9.58 |
| Dec-07 | 7.58 | 7.79 | 7.87 | 8.16 | 8.69 | 9.04 | 9.39 | 9.45 |
| Jan-08 | 7.11 | 7.48 | 7.60 | 7.88 | 8.94 | 8.98 | 9.06 | 9.22 |

*Contd.*

*Contd.*

| 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 |
| Feb-08 | 7.15 | 7.45 | 7.53 | 7.78 | 9.71 | 9.17 | 9.24 | 9.37 |
| Mar-08 | 7.24 | 7.55 | 7.69 | 8.20 | 8.54 | 9.45 | 9.38 | 9.47 |
| Apr-08 | 7.10 | 7.85 | 8.00 | 8.46 | 8.82 | 9.53 | 9.49 | 9.65 |
| May-08 | 7.31 | 7.83 | 7.97 | 8.54 | 8.75 | 9.40 | 9.64 | 9.62 |
| Jun-08 | 8.30 | 8.58 | 8.40 | 9.15 | 9.81 | 10.02 | 9.88 | 9.97 |
| 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 |

*Source: NSE.*

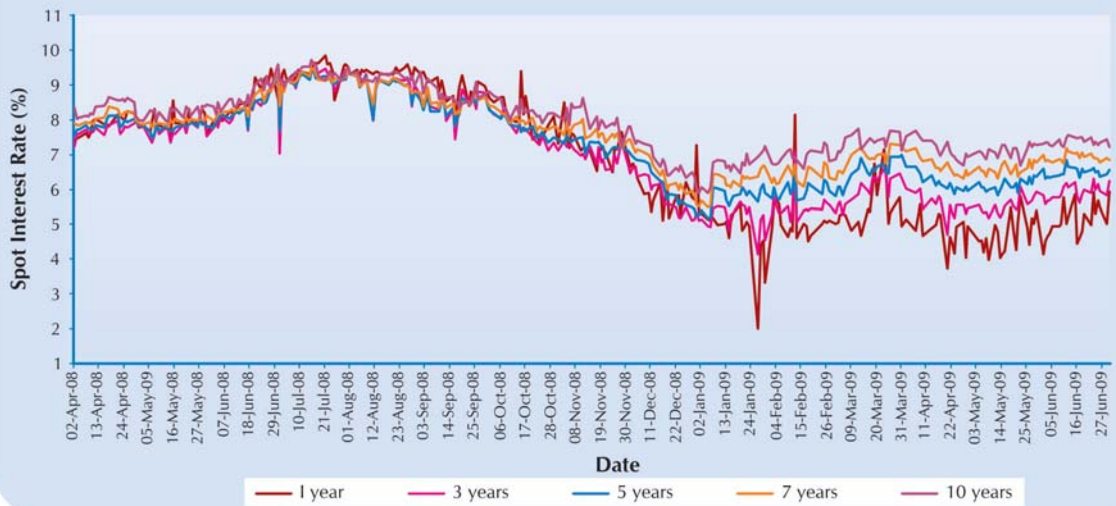
## WDM Products And Services

### Zero Coupon Yield Curve

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

The ZCYC depicts the relationship between interest rates in the economy and the associated terms to maturity. It provides daily estimates of the term structure of interest rates using information on secondary market trades in government securities from the WDM segment. The term structure forms the basis for the valuation of all fixed income instruments. Modeled as a series of cash flows due at different points of time in the future, the underlying price of such an instrument is calculated as the net present value of the stream of cash flows. Each cash flow, in such a formulation, is discounted using the interest rate for the associated term to maturity; the appropriate rates are read off the estimated ZCYC. Once estimated, the interest rate-maturity mapping is used to compute underlying valuations even for securities that do not trade on a given day. The daily ZCYC captures the changes in term structure, and is used to track the value of portfolios of government securities on a day-to-day basis. The estimates of daily ZCYC are available from February 1998. (Chart 6-6) plots the spot interest rates at different maturities for the period April 2008 till June 2009.

Chart 6-6: Zero Coupon Yield Curve, April 2008 - June 2009



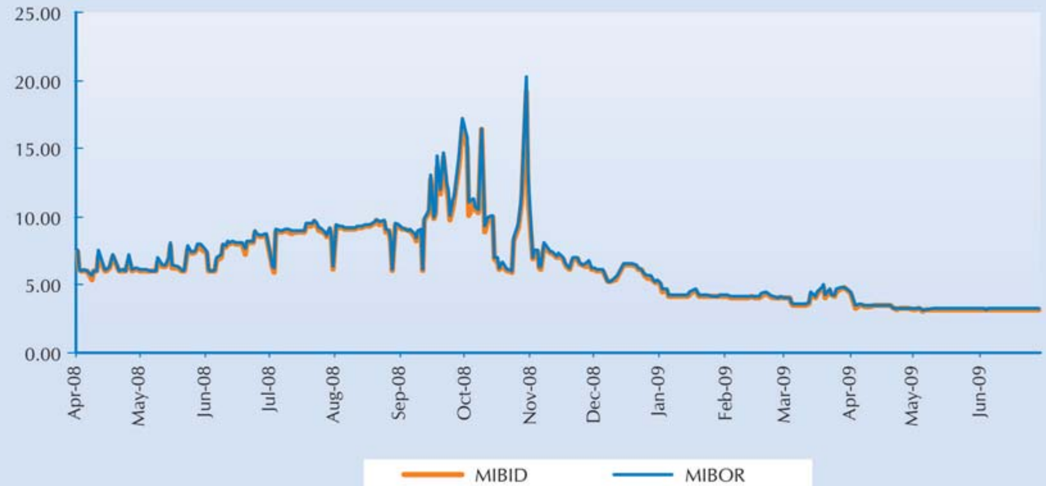

## FIMMDA-NSE MIBID /MIBOR

A reference rate is an accurate measure of the market price. In the fixed income market, it is an interest rate that the market respects and closely matches. On these lines, NSE has been computing and disseminating the NSE Mumbai Inter-bank Bid Rate (MIBID) and NSE Mumbai Inter-bank Offer Rate (MIBOR) for the overnight money market from June 15, 1998, the 14-day MIBID/MIBOR from November 10, 1998, the 1 month and 3 month MIBID/MIBOR from December 1, 1998 and the 3 day MIBID/MIBOR from, June 06,2008 which is calculated and disseminated on every last working day of the week. In view of the robust methodology of computation of these rates and their extensive use by market participants, these have been co-branded with Fixed Income and Money Market Dealers Association (FIMMDA) from March 4, 2002. These are now known as FIMMDA-NSE MIBID/MIBOR.

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

The FIMMDA-NSE MIBID/MIBOR rates for month ends are presented in (Annexure 6-2). The daily FIMMDA-NSE MIBID/MIBOR rates are available at www.nseindia.com. (Chart 6-7) presents overnight FIMMDA-NSE MIBID/MIBOR from April 2008 to June 2009. These rates touched the peak of 19.14% and 20.30%, respectively, on October 31, 2008 and the low of 3.03 and 3.16%, respectively, on May 06, 2009.

**Chart 6-7: Overnight NSE-FIMMDA MIBID/MIBOR Rates, April 2008 - June 2009**




## NSE-VaR System

NSE has developed a VaR system for measuring the market risk inherent in Government of India (GOI) securities. NSEVaR system builds on the NSE database of daily yield curves (ZCYC) and provides measures of VaR using 5 alternative methods (variance-covariance, historical simulation method, weighted normal, weighted historical simulation and extreme value method). Together, these 5 methods provide a range of options for market participants to choose from. NSE-VaR system releases daily estimates of security-wise VaR at 1-day and multi-day horizons for securities traded on WDM segment of NSE and all outstanding GoI securities with effect from January 1, 2002. Participants can compute their portfolio risk as weighted average of security-wise VaRs, the weights being proportionate to the market value of a given security in their portfolio. 1-day VaR (99%) measure for GoI Securities traded on NSE-WDM on June 30, 2009 is presented in (Table 6-16). The VaR for other GOI securities are available at www.nseindia.com.

**Table 6-16: 1-day VaR (99%) for GoI Securities Traded on NSE-WDM as on June 30, 2009**

| Security Type | Security Name | Issue Name | VaR (%) | | | | | Clean Price (off NSE-ZCYC) |
|---|---|---|---|---|---|---|---|---|
| | | | Normal | Weighted Normal | Historical Simulation | Weighted Historical Simulation | EVT | |
| GS | CG2010 | 5.87% | 0.46 | 0.90 | 0.56 | 0.67 | 0.50 | 99.98 |
| GS | CG2012 | 7.00% | 1.06 | 2.00 | 1.29 | 1.17 | 1.11 | 101.86 |
| GS | CG2012 | 7.40% | 1.03 | 2.00 | 1.26 | 3.18 | 1.09 | 102.84 |
| GS | CG2014 | 6.07% | 1.20 | 1.96 | 1.35 | 1.21 | 1.05 | 97.86 |
| GS | CG2016 | 7.59% | 1.31 | 1.98 | 1.40 | 1.79 | 1.13 | 104.08 |
| GS | CG2017 | 7.46% | 1.46 | 2.05 | 1.57 | 1.60 | 1.21 | 102.89 |
| GS | CG2017 | 8.07% | 1.37 | 1.99 | 1.44 | 1.72 | 1.16 | 106.72 |

*Contd.*

*Contd.*

| Security Type | Security Name | Issue Name | VaR (%) | | | | | Clean Price (off NSE-ZCYC) |
|---|---|---|---|---|---|---|---|---|
| | | | Normal | Weighted Normal | Historical Simulation | Weighted Historical Simulation | EVT | |
| GS | CG2020 | 6.35% | 1.86 | 2.52 | 1.98 | 2.09 | 1.64 | 93.47 |
| GS | CG2021 | 7.94% | 1.97 | 2.79 | 2.09 | 2.93 | 1.78 | 104.64 |
| GS | CG2022 | 8.20% | 2.07 | 3.06 | 2.20 | 3.26 | 1.83 | 106.46 |
| GS | CG2027 | 8.24% | 3.03 | 5.73 | 3.52 | 4.66 | 2.66 | 104.81 |
| GS | CG2035 | 7.40% | 4.78 | 10.21 | 6.15 | 8.47 | 4.32 | 92.58 |
| TB | 182D | 161009 | 0.31 | 0.58 | 0.38 | 0.45 | 0.34 | 98.30 |
| TB | 91D | 070809 | 0.13 | 0.23 | 0.16 | 0.39 | 0.14 | 99.40 |
| TB | 91D | 210809 | 0.17 | 0.31 | 0.21 | 0.30 | 0.18 | 99.18 |

## Bond Index

Market participants are familiar with the equity indices such as the Nifty 50 and the BSE Sensex. These have been around for years and are very popular as benchmarks. These are comparatively easy to construct due to the high liquidity of many equities across several industry categories. In contrast, designing debt indices posed as a challenge in India as the breadth and depth of the debt market has not been very promising. There were also a few additional difficulties in construction and maintenance of debt indices. First, on account of the fixed maturity of bonds vis-à-vis the perpetuity of equity, the universe of bonds changes frequently (new issues come in while existing issues are redeemed). Secondly, while market prices for the constituents of an equity index are normally available on all trading days over a long period of time, market prices of constituent bonds in a bond index, irrespective of the selection criteria used, may not be available daily. This is on account of the fact that the liquidity of a security varies over its lifetime and, in addition, can witness significant fluctuations over a short period. However, market participants need an index to compare their performance with as well as the performance of different classes of assets. A widely tracked benchmark in this context is the ICICI Securities' (Isec) bond index (i-BEX), which measures the performance of the bond markets by tracking returns on government securities. There are also other indices like NSE's G-Sec Index and NSE's T-Bills Index. These have emerged as the benchmark of choice across all classes of market participants - banks, financial institutions, primary dealers, provident funds, insurance companies, mutual funds and foreign institutional investors. It has two variants, namely, a Principal Return Index (PRI) and Total Return Index (TRI). The PRI tracks the price movements of bonds or capital gains/losses since the base date. It is the movement of prices quoted in the market and could be seen as the mirror image of yield movements. During March 09, the PRI of i-BEX and NSE G-Sec Index increased by 6.40 % and 9.92% respectively.

The TRI tracks the total returns available in the bond market. It captures both interest accruals and capital gains/losses. In a declining interest rate scenario, the index gains on account of interest accrual and capital gains, while losing on reinvestment income. As against this, during rising interest rate periods, the interest accrual and reinvestment income is offset by capital losses. Therefore, the TRI typically has a positive slope except during periods when the drop in market prices is higher than the interest accrual. During March 09, the TRI registered rise of 14.66% and 15.73 % for i-BEX and NSE G-Sec Index respectively. While constructing the NSE-Government Securities Index prices are used from NSE ZCYC so that the movements reflect returns to an investor on account of change in interest rates. The index provides a benchmark for portfolio management by various investment managers and gilt funds. The movements of popular fixed income indices at monthly rates are presented in (Table 6-17)

**Table 6-17: Debt Market Indices**

| 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-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 |
| 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** |

*Source : ICICI Securities and NSE*

# Policy Debates

## Developing the corporate bond market[2]

A well developed corporate bond market is essential for financial system efficiency, stability and overall economic growth. It provides financial diversification and facilitates necessary financing for corporates and infrastructure developers. However, this market remains practically non-existent in India imposing a constraint on India's ability to finance its growing needs of debt particularly for infrastructure development.

While globally bond markets are many more time the size of equity market, in India the size of corporate debt market has remained insignificant in comparison to that of equity. According to ADB Working Paper (2008), corporate debt market accounts for 3.9% of GDP in India, while the same accounts for 61% in Korea and 37.5% in Malaysia. The outstanding corporate debt composition is also skewed towards private placement (92%). The ratio of equity market capitalization to GDP increased from 32.1% in 1996 to 108% in March 2008. Over the same period, the bond market grew to 40 % of GDP from 21.3%. Out of that Government bond market represented 36.1% of GDP while the corporate bond accounted for a meager 3.9%. In absolute terms, India's corporate bond market is miniscule at USD 45 billion in March 2008 compared to USD 570 billion for Republic of Korea and USD 175 billion for China in the same period.

The reasons for the near-absence of a corporate bond market can be divided into constraints that limit the demand for the bonds, and constraints that limit the issuance of the bonds.

2 The arguments presented here have been largely drawn from an article by Anupam Mitra, titled "Why Corporate bond market in India is in Nelson's low level equilibrium trap for so long?", which appeared in the March 2009 issue of NSE NEWS. These do not necessary represent the views or suggested approach of NSE.

On the demand side, pension funds, who could be large buyers of corporate debt, are constrained by their prudential norms and conservative investment policies. They are regulated to invest under 10% of the funds collected in corporate bonds that are investment grade. In addition, regulations require that once subscribed to they have to be held to maturity. Similarly, the provident funds for the Central and State Government employees, the Employees Provident Fund Organization and Public Provident Fund, have huge assets under their management. However, they too are subject to stringent regulatory restrictions. Further, banks tend to prefer loans to bonds, because loans can be carried on the books without being marked to market, thus reducing the possibility of unexpected demands on bank capital. The internal organization of the bank also inhibits demand – corporate bond portfolios are managed by the treasury, while loans are managed by credit departments, creating barriers between the two forms of lending.

Foreign investors are allowed only to a very limited extent into the market (a total of $15 billion). Given the very limited liquidity, they are not always eager to even take up the available quota. Also, a possible explanation for the general lack of interest in this asset class could be due to absence of a reliable system of resolving financial distress so that investors are reluctant to buy unsecured bonds in contrast to lending secured debt, especially those of high risk firm.

On the supply side, most of the large issuers are quasi-government, including banks, public sector oil companies, or government sponsored financial institutions. The private corporate sector prefers to go in for private placements of bonds owing to cumbersome primary issuance mechanism (to some extent addressed by recent changes in the regulations by the market regulator, SEBI); absence of sub-investment grade securities and missing derivatives markets in bonds are some of the problems confronting the bond markets. Also, until the recent credit crisis, larger corporate issuers had access to much cheaper funds in the offshore debt capital markets. Even after hedging their currency risks, the total cost of borrowing offshore is much lower than the cost of borrowing in the domestic market.

Thus, the corporate bond market is locked in a low level equilibrium trap by a vicious cycle. The existing stock of outstanding corporate bonds is not sufficient to create a deep and liquid secondary market. Costly issuance process with rigid norms for self registration, poor price discovery etc. are deterrent for issuers to access primary market. Thus, lower outstanding stock of corporate bonds results in low liquidity in secondary market thereby preventing potential investors who are keen to invest but not hold securities till maturity. Because there is low liquidity, issuers are not sure that price discovery will be efficient and fair. As a result issuers who are capable are more comfortable with accessing the private placement route where terms can be negotiated from a position of strength in ones' favour.

To usher in vibrancy and liquidity in the corporate bond market would require bold reforms to be implemented in tandem since many of the problems are interlinked.

The recent Government Committee on Financial Sector Reforms, has inter-alia, made the following recommendations to help revive the corporate bond market: (i) Allow domestic financial institutions greater leeway to invest in corporate bonds (ii) Steadily raise the limit on foreign investment in corporate bonds (iii) Amend the bankruptcy code so that the rights of unsecured creditors are protected (iv) Reduce the transactions costs in issuing and trading corporate bonds, including repeated onerous disclosures (move instead to a shelf-registration scheme), as well as high stamp duties (v) Reduce the artificial preference of banks for loans by subjecting loans and bonds to similar mark-to-market requirements, especially for aspects such as interest rate exposure that are easily measured.

Some other measures that could help vitalize the corporate bond markets are permitting Credit Default Swaps (CDSs) and repos in corporate bonds. CDSs offer insurance to the bond holder against default in interest or principal repayment. Repos allow dealers to operate with funded portfolios so as to be able to offer quotes at low spreads. These two can be important instruments that can help encourage investors in corporate bond market.

## Annexure 6-1: Business Growth of WDM Segment

| Month/Year | All Trades | | | | | | | Retail Trades | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Active Securities | Number of Trades | Turnover (Rs. mn.) | Average Daily Turnover (Rs. mn.) | Average Trade Size (Rs. mn.) | Turnover (US $ mn.) | Average Daily Turnover (US $ mn.) | Number of Trades | Turnover (Rs. mn.) | Turnover (US $ mn.) | Share in Total Turnover (%) |
| **2000-01** | 1,038 | 64,470 | 4,285,815 | 14,830 | 66.48 | 91,891 | 318 | 498 | 1,318 | 28.26 | 0.03 |
| **2001-02** | 979 | 144,851 | 9,471,912 | 32,775 | 65.39 | 194,097 | 672 | 378 | 1,094 | 22.42 | 0.01 |
| **2002-03** | 1,123 | 167,778 | 10,687,014 | 35,983 | 63.70 | 224,990 | 758 | 1,252 | 2,995 | 63.05 | 0.03 |
| **2003-04** | 1,078 | 189,518 | 13,160,962 | 44,765 | 69.44 | 303,318 | 1,032 | 1,400 | 3,317 | 76.45 | 0.03 |
| **2004-05** | 1,151 | 124,308 | 8,872,936 | 30,283 | 71.38 | 202,810 | 692 | 1,278 | 4,101 | 93.74 | 0.05 |
| **2005-06** | 897 | 61,891 | 4,755,235 | 17,547 | 76.83 | 106,596 | 393 | 892 | 3,104 | 69.58 | 0.07 |
| **2006-07** | 762 | 19,575 | 2,191,065 | 8,980 | 111.93 | 50,265 | 206 | 399 | 1,015 | 23.29 | 0.05 |
| **2007-08** | **601** | **16,179** | **2,823,170** | **11,380** | **174.50** | **70,632** | **285** | **211** | **490** | **12.26** | **0.02** |
| Apr-08 | 122 | 1,016 | 198,928 | 9,946 | 195.80 | 3,904 | 195 | 6 | 21 | 0.41 | 0.01 |
| May-08 | 137 | 1,200 | 206,563 | 10,328 | 172.14 | 4,054 | 203 | 3 | 3.50 | 0.07 | 0.002 |
| Jun-08 | 190 | 956 | 182,334 | 8,683 | 190.73 | 3,579 | 170 | 106 | 203 | 3.98 | 0.11 |
| Jul-08 | 127 | 815 | 187,448 | 8,150 | 230.00 | 3,679 | 160 | 10 | 34 | 0.67 | 0.02 |
| Aug-08 | 75 | 594 | 115,017 | 6,054 | 193.63 | 2,257 | 119 | 16 | 50 | 0.98 | 0.04 |
| Sep-08 | 124 | 783 | 197,794 | 9,890 | 252.61 | 3,882 | 194 | 12 | 34 | 0.67 | 0.02 |
| Oct-08 | 126 | 922 | 199,662 | 11,092 | 216.55 | 3,919 | 218 | 10 | 24 | 0.48 | 0.01 |
| Nov-08 | 140 | 1,093 | 231,431 | 12,857 | 211.74 | 4,542 | 252 | 7 | 28 | 0.55 | 0.01 |
| Dec-08 | 218 | 2,857 | 468,644 | 22,316 | 164.03 | 9,198 | 438 | 11 | 60 | 1.18 | 0.01 |
| Jan-09 | 232 | 2,218 | 450,152 | 22,508 | 203.00 | 8,835 | 442 | 15 | 48 | 0.94 | 0.01 |
| Feb-09 | 221 | 1,891 | 429,487 | 22,605 | 227.10 | 8,430 | 444 | 28 | 58 | 1.13 | 0.01 |
| Mar-09 | 265 | 1,784 | 492,055 | 25,898 | 275.80 | 9,658 | 508 | 33 | 72 | 1.41 | 0.01 |
| **2008-09** | **711** | **16,129** | **3,359,515** | **14,116** | **208.3** | **65,937** | **277** | **257** | **635** | **12.47** | **0.02** |
| Apr-09 | 313 | 2,408 | 456,529 | 28,533 | 189.6 | 9,537 | 596 | 14 | 54 | 1.13 | 0.01 |
| May-09 | 270 | 2,089 | 402,658 | 20,133 | 192.8 | 8,411 | 421 | 8 | 36 | 0.75 | 0.01 |
| Jun-09 | 243 | 1,948 | 445,679 | 20,258 | 228.8 | 9,310 | 423 | 26 | 75 | 1.57 | 0.02 |
| **April-June 2009** | **501** | **6,445** | **1,304,865** | **22,498** | **202.46** | **27,259** | **470** | **48** | **165** | **3.45** | **0.01** |

*Source : NSE*

**Annexure 6-2: FIMMDA NSE MIBID/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-08 | 7.79 | 8.77 | | | 6.28 | 7.41 | 6.73 | 7.87 | 7.79 | 8.77 |
| 31-May-08 | 7.53 | 7.93 | | | 6.51 | 7.53 | 6.88 | 8.07 | 7.89 | 8.87 |
| 30-Jun-08 | 8.69 | 8.77 | 8.65 | 8.76 | 8.59 | 9.13 | 8.90 | 9.56 | 9.39 | 9.94 |
| 31-Jul-08 | 8.37 | 8.51 | 9.04 | 9.14 | 8.58 | 9.28 | 9.07 | 9.89 | 9.62 | 10.39 |
| 30-Aug-08 | 9.38 | 9.49 | 6.16 | 6.26 | 9.53 | 10.12 | 9.98 | 10.55 | 10.44 | 11.22 |
| 29-Sep-08 | 13.87 | 14.57 | 11.11 | 11.50 | 10.75 | 11.84 | 10.78 | 11.77 | 10.97 | 11.86 |
| 31-Oct-08 | 19.14 | 20.30 | 19.48 | 20.73 | 10.24 | 10.63 | 10.13 | 11.08 | 10.84 | 11.73 |
| 29-Nov-08 | 6.48 | 6.82 | 6.44 | 6.54 | 9.25 | 8.10 | 9.88 | 8.97 | 10.63 | 10.43 |
| 31-Dec-08 | 5.17 | 5.27 | 5.74 | 5.85 | 6.27 | 7.19 | 7.58 | 8.04 | 8.45 | 8.89 |
| 31-Jan-09 | 4.17 | 4.23 | 4.15 | 4.25 | 5.30 | 5.68 | 6.00 | 6.44 | 7.05 | 7.83 |
| 28-Feb-09 | 4.10 | 4.16 | 4.03 | 4.10 | 5.04 | 5.37 | 5.72 | 6.18 | 6.99 | 7.64 |
| 31-Mar-09 | 4.78 | 5.02 | 4.70 | 4.84 | 5.04 | 5.61 | 5.68 | 6.26 | 7.07 | 7.64 |
| 29-Apr-09 | 3.24 | 3.31 | 3.25 | 3.31 | 3.43 | 3.87 | 4.06 | 4.42 | 5.18 | 5.64 |
| 30-May-09 | 3.22 | 3.30 | 3.21 | 3.27 | 3.31 | 3.74 | 3.81 | 4.16 | 4.84 | 5.29 |
| 30-Jun-09 | 3.22 | 3.30 | 3.22 | 3.28 | 3.10 | 3.46 | 3.48 | 3.82 | 4.35 | 4.72 |

Overnight : Disseminated since June 15, 1998.
3 day :disseminated since June 06, 2008 is calculated and disseminated on every last working day of the week
14 Day : Disseminated since November 10, 1998.
1 month : Disseminated since December 1, 1998.
3 month : Disseminated Since December 1, 1998.

# Derivatives Market

## Introduction

The emergence and growth of 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 hedging of price risk of inventory holding or a financial/commercial transaction over a certain period. They serve as instruments of risk management. 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. 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 are seen to be facilitating the flow of trade and finance.

The financial derivatives gained prominence in post-1970 period due to growing instability in the financial markets and became very popular, accounting for about two-thirds of total transactions in derivative products. In the recent years, the market for financial derivatives has grown both in terms of variety of instruments available, their complexity and turnover. Financial derivatives have changed the world of finance through creation of innovative ways to comprehend measure and manage risks.

India's tryst with equity derivatives began in the year 2000 on the NSE and BSE. Trading first commenced in Index futures contracts, followed by index options in June 2001, options in individual stocks in July 2001 and futures in single stock derivatives in November 2001. Since then, equity derivatives have come a long way. New products; expanding list of eligible investors; rising volumes and best of risk management framework for exchange traded derivatives have been the hallmark of the journey of equity derivatives so far.

India's experience with the launch of equity derivatives market has been extremely positive. The derivatives turnover on the NSE has surpassed the equity market turnover. The turnover of derivatives on the NSE increased from Rs. 23,654 million (US $ 207 million) in 2000-01 to Rs. 110,104,821 million (US $ 2,161 bn) in 2008-09. The average daily turnover in this segment of the markets on the NSE was Rs. 453,106 mn in 2008-09.

India is one of the most successful developing countries in terms of a vibrant market for exchange-traded derivatives. This reiterates the strengths of the modern development of India's securities markets, which are based on nationwide market access, anonymous electronic trading, and a predominantly retail market. There is an increasing sense that the equity derivatives market is playing a major role in shaping price discovery.

**Table 7.1: Benchmark Indices Contracts & Volume in futures & Options Segment of NSE for the fiscal 2008-09 and the quarter (April 2009- June 2009)**

| Indices/ Period | No of Contracts | Traded Value (Rs. Mn.) | Traded Value (US $ Mn.) | Percentage of Contracts to total contracts | No of Contracts | Traded Value (Rs. Mn.) | Traded Value (US $ Mn.) | Percentage of Contracts to total contracts |
|---|---|---|---|---|---|---|---|---|
| **Index Futures** | | | | | | | | |
| | **2008-09** | | | | **April 2009-June 2009** | | | |
| NIFTY | 184,877,940 | 3,338,319 | 65,521 | 43.76 | 43,805,244 | 853,774 | 17,835 | 35.31 |
| MINIFTY | 18,079,260 | 127,076 | 2,494 | 4.28 | 5,223,831 | 40,340 | 843 | 4.21 |
| BANKNIFTY | 7,360,831 | 102,690 | 2,016 | 1.74 | 2,450,827 | 71,763 | 1,499 | 1.98 |
| CNXIT | 99,171 | 1,781 | 35 | 0.02 | 7,883 | 233 | 5 | 0.01 |
| JUNIOR | 6,370 | 128 | 3 | 0.00 | 22 | 1 | 0 | 0.00 |
| NFTYMCAP50 | 1,669 | 30 | 1 | 0.00 | 15 | 1 | 0 | 0.00 |
| CNX100 | 154 | 3 | 0 | 0.00 | 35 | 1 | 0 | 0.00 |
| DEFTY | 2,708 | 84 | 2 | 0.00 | 0 | 0 | 0 | 0.00 |
| **Index Options** | | | | | | | | |
| NIFTY | 211,942,965 | 3,729,509 | 73,199 | 50.16 | 72,472,369 | 1,427,733 | 29,825 | 58.42 |
| MINIFTY | 27,819 | 190 | 4 | 0.01 | 25,448 | 203 | 4 | 0.02 |
| BANKNIFTY | 112,555 | 1,686 | 33 | 0.03 | 62,071 | 1,580 | 33 | 0.05 |
| CNXIT | 4,314 | 89 | 2 | 0.00 | 0 | 0 | 0 | 0.00 |
| JUNIOR | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 | 0.00 |
| NFTYMCAP50 | 790 | 28 | 1 | 0.00 | 7,219 | 430 | 9 | 0.01 |
| CNX100 | 0 | 0 | 0 | 0.00 | 46 | 1 | 0 | 0.00 |
| DEFTY | 1 | 0 | 0 | 0.00 | 0 | - | - | 0.00 |
| **Total of all Indices** | **422,516,547** | **7,301,613.28** | 143,309 | 100.00 | **124,055,010** | **2,396,059.44** | 50,053 | 100.00 |
| Total of Nifty Index Futures and Options | 396,820,905 | 7,067,827 | 138,721 | 93.92 | 116,277,613 | 2,281,507 | 47,660 | 93.73 |

(w.e.f. 31-07-2009 contracts on DEFTY, CNX 100 and JUNIOR have been discountinued.)

## Global Derivatives Markets

1. As per the FIA Annual Volume Survey, 2008-09 was a turbulent year for the derivatives markets following the events surrounding the Lehman Brothers' bankruptcy and its after effects seen throughout the global financial world. Despite all the turbulence, the overall growth trend in Futures and Options was still positive. The total number of futures and options contracts traded on the 69 exchanges tracked by the Futures Industry Association was USD 17.65 billion during January to December 2008, an increase of 13.69% over 2007. Volume in the U.S., the epicenter of the credit crisis, rose 14% from 2007 and in Europe and Asia by 16%.

   Looking at global trends in derivatives volume by category, we find that Equity futures and options, both index and single stock and commodity products were the most powerful drivers of increase in volumes of exchange traded derivative contracts in 2008. The trading in foreign currency derivatives grew at 25.5% in 2008 (Table 7-2).

   However, with the credit crisis the trading of interest rate products was greatly reduced. On a global basis, interest rate volumes went down by 14.4% relative to 2007, the first time in many years the markets have had such a big setback. Long-term interest rate futures were especially hard hit. Ten-year Treasury futures trading tumbled 26.5% from 2007; Euro bund futures fell 23.8%; and JGB futures slid 21.5%. Short-term interest rate products were mixed, with Euribor futures up slightly, Eurodollar futures down slightly, and Euroyen futures way down by 42.6%.

**Table 7-2: Global Exchange traded derivatives volume by category**

(in millions)

| GLOBAL | Jan-Dec 2008 | Jan-Dec 2007 | (%) Change |
|---|---|---|---|
| Equity Indices | 6,488.62 | 5,499.83 | 17.98 |
| Individual Equities | 5,511.19 | 4,400.44 | 25.24 |
| Interest Rate | 3,204.84 | 3,745.18 | -14.43 |
| Agricultural | 888.83 | 640.68 | 38.73 |
| Energies | 580.4 | 496.77 | 16.83 |
| Currency | 577.16 | 459.75 | 25.54 |
| Precious Metals | 180.37 | 150.98 | 19.47 |
| Non-precious metals | 175.79 | 106.86 | 64.50 |
| Others | 45.5 | 26.14 | 74.06 |
| **Total Volume** | **17,652.7** | **15,526.63** | **13.69** |

Source: Futures Industry Annual Volume Survey, March 2009

2. In terms of number of single stock futures contracts traded in 2008, NSE held the second position. It was fourth in terms of number of stock index options contracts traded and third in terms of number of stock index futures contracts traded in 2008. These rankings are based on World Federation of Exchanges (WFE) Annual Report and Statistics 2008. (Table 7-3)

**Table 7-3: Top 5 exchanges in various derivative contracts**

(in million)

| | | 2008 | 2007 | % change |
|---|---|---|---|---|
| **Top 5 exchanges by number of single stock futures contracts traded in 2008** | | | | |
| 1 | Johannesburg Stock Exchange | 420 | 265 | 58.5 |
| **2** | **National Stock Exchange of India** | **226** | **179** | **26.3** |
| 3 | Eurex | 130 | 53 | 145.3 |
| 4 | NYSE Liffe (European Markets) | 125 | 75 | 66.7 |
| 5 | Australian Securities Exchange | 69 | 13 | 430.8 |
| **Top 5 exchanges by number of single stock options contracts traded in 2008** | | | | |
| | | **2008** | **2007** | **% change** |
| 1 | International Securities Exchange | 988 | 788 | 25.4 |
| 2 | Chicago Board Options Exchange | 934 | 714 | 30.8 |
| 3 | NASDAQ OMX PHLX | 538 | 399 | 34.8 |
| 4 | NYSE Acra Options | 417 | 336 | 24.1 |
| 5 | BM&F Bovespa | 350 | 367 | -4.6 |

*Contd.*

*Contd.*

| Top 5 exchanges by number of Stock index options contracts traded in 2008 | | | | |
|---|---|---|---|---|
| | | **2008** | **2007** | **% change** |
| 1 | Korea Exchange | 2767 | 2709 | 2.1 |
| 2 | Eurex | 515 | 353 | 45.9 |
| 3 | Chicago Board Options Exchange | 234 | 207 | 13.0 |
| **4** | **National Stock Exchange of India** | **151** | **53** | **184.9** |
| 5 | Taifex | 98 | 97 | 1.0 |
| **Top 5 exchanges by number of Stock index futures contracts traded in 2008** | | | | |
| | | **2008** | **2007** | **% change** |
| 1 | CME Group | 898 | 675 | 33.0 |
| 2 | Eurex | 512 | 401 | 27.7 |
| **3** | **National Stock Exchange of India** | **202** | **139** | 45.3 |
| 4 | Osaka Securities Exchange | 131 | 79 | 65.8 |
| 5 | NYSE Liffe (European markets) | 106 | 93 | 14.0 |

*Source:WFEAnnual Report and Statistics 2008*

3. Table 7-4 gives the rank of various exchanges in terms of number of futures and options traded and/or cleared in 2007. NSE improved its ranking in 2008 in terms of traded volumes in futures and options taken together, improving its worldwide ranking from 15th in 2006 to 9th in 2007 and to 8th in 2008. The traded volumes in the derivatives segment of the NSE saw an increase of 55.4% in 2008 over the figure in 2007.

**Table 7-4: Global Futures and Options Volume**

(in million)

| Rank | | Exchange | Volume | | |
|---|---|---|---|---|---|
| **2008** | **2007** | | **Jan-Dec 2008** | **Jan-Dec 2007** | **%change** |
| 1 | 1 | CME Group (includes CBOT and NYMEX) | 3,277.64 | 3,158.38 | 3.8 |
| 2 | 3 | Eurex (includes ISE) | 3,172.70 | 2,704.21 | 17.3 |
| 3 | 2 | Korea Exchange | 2,865.48 | 2,777.42 | 3.2 |
| 4 | 4 | NYSE Euronext (includes all EU and US markets) | 1,675.79 | 1,525.25 | 9.9 |
| 5 | 5 | Chicago Board Options Exchange (includes CFE) | 1,194.52 | 945.61 | 26.3 |
| 6 | # | BM&F Bovespa (includes Bolsa de Mercadorias & Futuros and Bolsa de Valore de Sao Paulo) | 741.89 | 794.05 | -6.6 |
| 7 | # | Nasdaq OMX Group | 722.11 | 551.41 | 31.0 |
| 8 | 9 | **National Stock Exchange of India** | **590.15** | **379.64** | 55.4 |
| 9 | 13 | JSE Securities Exchange South Africa | 513.58 | 329.64 | 55.8 |
| 10 | 17 | Dalian Commodity Exchange | 313.22 | 185.61 | 68.8 |
| 11 | # | Russian Trading systems stock exchange | 238.22 | 143.98 | 65.5 |
| 12 | 6 | Intercontinental Exchange (includes US, UK and Canada Markets) | 234.41 | 194.67 | 20.4 |
| 13 | 24 | Zhengzhou Commodity Exchange | 222.56 | 93.05 | 139.2 |
| 14 | 19 | Boston Options Exchange | 178.65 | 129.80 | 37.6 |
| 15 | 22 | Osaka Securities Exchange | 163.69 | 108.92 | 50.3 |

*Contd.*

*Contd.*

| Rank | | Exchange | Volume | | |
|---|---|---|---|---|---|
| **2008** | **2007** | | **Jan-Dec 2008** | **Jan-Dec 2007** | **%change** |
| 16 | 27 | Shanghai Futures Exchange | 140.26 | 85.56 | 63.9 |
| 17 | 21 | Taiwan Futures Exchange | 136.72 | 115.15 | 18.7 |
| 18 | # | Moscow Interbank Currency Exchange | 131.91 | 85.39 | 54.5 |
| 19 | 25 | London Metal Exchange | 113.22 | 92.91 | 21.9 |
| 20 | 26 | Hong Kong Exchanges & Clearing | 105.01 | 87.99 | 19.3 |
| 21 | 20 | Australian Securities Exchange | 94.78 | 116.09 | -18.4 |
| 22 | 28 | **Multi Commodity Exchange of India** | 94.31 | 68.95 | 36.8 |
| 23 | 23 | Tel-Aviv Stock Exchange | 92.58 | 104.37 | -11.3 |
| 24 | 29 | Mercado Espanol de Opciones y Futuros Financieros | 83.42 | 51.86 | 60.9 |
| 25 | 15 | Mexican Derivatives Exchange | 70.14 | 228.98 | -69.4 |
| 26 | 33 | Tokyo Financial Exchange | 66.93 | 76.19 | -12.2 |
| 27 | 31 | Singapore Exchange | 61.84 | 44.21 | 39.9 |
| 28 | 38 | Turkish Derivatives Exchange | 54.47 | 24.87 | 119.0 |
| 29 | 37 | Mercado a Termino de Roasario | 42.22 | 25.42 | 66.1 |
| 30 | 30 | The Tokyo Commodity Exchange | 41.03 | 47.07 | -12.8 |
| 31 | 34 | Italian Derivatives Market | 38.93 | 37.12 | 4.9 |
| 32 | 32 | Bourse de Montreal | 38.06 | 42.74 | -10.9 |
| 33 | 36 | Tokyo Stock Exchange | 32.5 | 33.09 | -1.8 |
| **34** | **35** | **National Commodity & Derivatives Exchange (India)** | **24.64** | **34.95** | -29.5 |
| 35 | 41 | Oslo stock Exchange | 16.05 | 13.97 | 14.9 |
| 36 | 40 | Budapest Stock Exchange | 13.37 | 18.83 | -29.0 |
| 37 | 42 | Warsaw Stock Exchange | 12.56 | 9.34 | 34.5 |
| 38 | 39 | Tokyo Grain Exchange | 8.43 | 19.67 | -57.1 |
| 39 | 39 | Athens Derivatives Exchange | 7.17 | 6.58 | 9.0 |
| 40 | 45 | Malaysia Derivatives Exchange Berhad | 6.12 | 6.20 | -1.3 |
| 41 | 43 | One Chicago | 4.01 | 8.11 | -50.6 |
| 42 | 46 | Kansas City Board of Trade | 3.97 | 4.67 | -15.0 |
| 43 | 43 | Climate Exchange (includes ECX and CCFE) | 3.29 | 1.32 | 149.2 |
| 44 | 44 | Central Japan Commodity Exchanges | 3.27 | 6.55 | -50.1 |
| 45 | 45 | Thailand Futures Exchange | 2.15 | 1.23 | 74.8 |
| 46 | 48 | New Zealand Futures Exchange | 1.46 | 1.65 | -11.5 |
| 47 | 47 | Minneapolis Grain Exchange | 1.41 | 1.83 | -23.0 |
| 48 | 49 | Wiener Boerse | 1.13 | 1.32 | -14.4 |
| 49 | 51 | Dubai Mercantile Exchange | 0.33 | 0.22 | 50.0 |
| 50 | 53 | Kansai Commodities Exchange | 0.18 | 0.16 | 12.5 |
| 51 | 52 | Mercado a Termino de Buenos Aires | 0.16 | 0.18 | -11.1 |
| 52 | 54 | US Futures Exchange (Eurex US) | 0.023 | 0.008 | 183.0 |

*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*
*Source: Futures Industry Annual Volume Survey, March 2009*

## Derivatives market survey by WFE-May 2009

The World Federation of Exchanges carried out an annual survey of derivatives markets for the International Options Markets Association (IOMA) derivatives exchanges, covering the markets in its member countries. The survey completed in May 2009 covered derivative markets in 69 exchanges.

The main findings of the 2008 IOMA survey are listed below:

- After several years of rapid growth, the pace of development of all derivative markets segments, except commodity futures, slowed down in 2008. It turned negative on interest rate products. Although a sharp downturn has been observed since Lehman Brothers collapse, equity products are resisting, and their share in total derivatives trading increased from 65% to 69%.

(in million)

| 2008 | | Stock | Stock index | STIR | LTIR | Currency |
|---|---|---|---|---|---|---|
| *Number of contracts traded (millions)* | *Options* | 4,368 | 4,077 | 439 | 171 | 50 |
| | *Futures* | 1,059 | 2,286 | 1,243 | 1,322 | 332 |
| *Growth rate of contracts traded* | *Options* | 17% | 9% | -6% | -9% | 17% |
| | *Futures* | 66% | 34% | -18% | -14% | 4% |

*Note: STIR: short term interest rate products*
*LTIR: long term interest rate products*

- For the first time trading in equity options has exceeded trading in equity index options. However, the financial crisis was still producing its negative effects at the beginning of 2009 and growth seems to be at least provisionally frozen on a majority of exchanges.
- Index options and futures were also hit by the financial crisis. However, a huge increase in KOSPI index options was observed in February 2009: more than 200 million contracts were traded during that month alone (against 140 million in February 2008).
- The fledgling market of equity futures again showed a very impressive rate of growth and there were again new exchanges that introduced equity futures trading in Asia.
- Growth of all segments of interest rate derivatives turned negative, short term like long term products, options like futures. Also, the growth rate of currency derivatives was ten times lower compared to 2007.

### MAJOR DEVELOPMENTS IN DERIVATIVES SEGMENT

#### Launch of currency futures contracts on 29th August, 2008

India's financial market has been increasingly integrating with rest of the world through increased trade and finance activity, as noted above, giving rise to a need to permit further hedging instruments, other that OTC products, to manage exchange risk like currency futures. With electronic trading and efficient risk management systems, exchange traded currency futures were expected to benefit the universe of participants including corporates and individual investors. The RBI Committee on Fuller Capital Account Convertibility recommended that currency futures may be introduced subject to risks being contained through proper trading mechanism, structure of contracts and regulatory environment. Accordingly, Reserve Bank of India in the Annual Policy Statement for the Year 2007-08 proposed to set up a Working Group on Currency Futures to study the international experience and suggest a suitable framework to operationalise the proposal, in line with the current legal and regulatory framework. This Group submitted its report in April, 2008. Following this, RBI and Securities and Exchange Board of India (SEBI) jointly constituted a Standing Technical Committee to inter-alia evolve norms and oversee implementation of Exchange Traded Currency Derivatives. The Committee submitted its report on May 29, 2008. This report laid down the framework for the launch of Exchange Traded Currency Futures in terms of the eligibility norms for existing and new Exchanges and their Clearing Corporations/Houses, eligibility criteria for members of such Exchanges/Clearing Corporations/Houses, product design, risk management measures, surveillance mechanism and other related issues.

The Regulatory framework for currency futures trading in the country, as laid down by the regulators, provide that persons resident in India are permitted to participate in the currency futures market in India subject to directions contained in the Currency Futures (Reserve Bank) Directions, 2008, which have come into force with effect from August 6, 2008.

Standardized currency futures have the following features:

a. USD INR, EUR INR, JPY INR and GDP INR contracts are allowed to be traded.
b. The size of each contract is - USD 1000, EUR 1000, GDP 1000 and JPY 1,00,000.
c. The contracts shall be quoted and settled in Indian Rupees.
d. The maturity of the contracts shall not exceed 12 months.
e. The settlement price shall be the Reserve Bank's Reference Rate on the last trading day.

The membership of the currency futures market of a recognised stock exchange has been mandated to be separate from the membership of the equity derivative segment or the cash segment. Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' are permitted to become trading and clearing members of the currency futures market of the recognized stock exchanges, on their own account and on behalf of their clients, subject to fulfilling certain minimum prudential requirements pertaining to net worth, non-performing assets etc.

NSE was the first exchange to have received an in-principle approval from SEBI for setting up currency derivative segment. The exchange lunched its currency futures trading platform on 29th August, 2008. While BSE commenced trading in currency futures on 1st October, 2008, Multi-Commodity Exchange of India (MCX) started trading in this product on 7th October, 2008.

### Re-launch of Interest Rate Futures on Indian Stock Exchanges

An Interest Rate Future (IRF) is a financial derivative with an interest-bearing instrument as the underlying asset. In case of IRF contracts, a borrower and a lender agree to fix the rate at which they will borrow or lend at a future date. As with other futures instruments, such as in commodities, the contract can help protect against rate swings. Interest rate futures are based on an underlying security which is a debt obligation and moves in value as interest rate changes.

IRFs were introduced in India in June 2003 on the NSE through launch of three contracts - a contract based on a notional 10-year coupon bearing bond, a contract based on a notional 10-year zero coupon bond and a contract based on 91-day Treasury bill. All the contracts were valued using the Zero Coupon Yield Curve (ZCYC) (*a curve which estimates relationship between maturity and interest rate*). The contracts design did not provide for physical delivery. However, the product did not meet much success primarily due to the way the product was designed and market microstructure. According to the market participants, the use of a ZCYC for determining the settlement and daily mark-to-market price resulted in large errors between zero coupon yields and underlying bond yields, which lead to large basis risk (the risk that offsetting investments in a hedging strategy will not experience price changes in entirely opposite directions from each other) between IRF and the underlying. The contract traded only for 3 months and then withered out.

A proposal for change in the product design - introducing pricing based on the YTM of a basket of securities in lieu of ZCYC - was made in January 2004 but has not been implemented.

In the background of this experience with the IRF product, amidst an otherwise rapidly evolving financial market, the RBI, set up a Working Group on IRF in August, 2007 to, inter-alia, review the experience with the IRF so far, with particular reference to product design issue and make recommendations for activating the IRF. The Group submitted its report in February, 2008, following which an RBI-SEBI Standing Technical Committee on Exchange-Traded Currency and Interest Rate Derivatives was constituted. The Report of this Committee has been made public on 17th June 2009.

SEBI had invited eligible exchanges to apply for permission to offer this product on their trading platforms.

National Stock Exchange became the first exchange to receive approval from SEBI to introduce Exchange traded Interest Rate Futures (IRF) contracts for trading on the Currency Derivatives Segment of the exchange. Trading in IRF commenced on August 31, 2009. On its first day of trading, 14,559 contracts being traded at a total value of Rs 267.31 crores.

**Distinguishing features between the IRFs launched in 2003 and new prodcuts launched on August 31, 2009 are:**

| Features of Products launched in June 2003 | Re-launched IRF product (Sept 2009) |
|---|---|
| 1. To be traded on Derivatives Segment | To be Traded on CDS segment |
| 2. Participation of FIIs not allowed | Participation of FIIs allowed |
| 3. Three underlyings- Futures on 10-year notional GoI security with 6% coupon rate; futures on 10-year notional zero-coupon GoI security and futures on 91-day Treasury bill. | Underlying: 10-year 7% Notional GOI Bond |
| 4. Contracts were valued using the Zero Coupon Yield Curve (ZCYC). The contracts design did not provide for physical delivery. | These futures contracts would be based on 10-year government bond yield, which should be settled by physical delivery. |
| 5. Cash Settled | Physical delivery - The deliverable grade of securities are GOI Securities maturing at least 8 years but not more than 12 years from first day of the delivery month with a minimum total outstanding of Rs 10,000 crores. |

## Other Policy Developments

### 1. Guidelines on Exchange Traded Interest Rate Derivatives

The guidelines on Exchange-Traded Interest Rate Derivatives were issued by RBI vide circular dated June 3, 2003. In terms of this circular, banks were permitted to transact in Interest Rate Futures (IRFs) for the purpose of hedging the risk in their underlying investment portfolio. RBI also decided to allow banks to take trading positions in IRFs. Vide its circular dated October 13, 2008.

### 2. Revised Exposure Margin for Exchange Traded Equity Derivatives

SEBI had vide its circular dated December 18, 2002, inter-alia, specified that the exposure margin shall be higher of 5% 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 gross short open position in stock options in a particular underlying.

With a view to ensure market safety and safeguard the interest of investors, SEBI decided that the said exposure margin shall be higher of 10% or 1.5 times the standard deviation (of daily logarithmic returns of the stock price), with effect from October 22, 2008.

### 3. Issuance of Electronic Contract Notes (ECNs) in Equity Derivatives Segment

In continuation of SEBI's circular dated February 3, 2004, on the issuance of electronic contract notes as a legal document like the physical contract note for the equity segment, SEBI, in consultation with the exchanges, decided to extend the facility of issuance of ECNs as a legal document using Straight Through Processing (STP) to the equity derivatives segment also. Accordingly a model contract note in electronic form (IFN 515 messaging format) and confirmation of electronic contract note (IFN 598 messaging format) was released by SEBI on November 6, 2008.

SEBI advised the exchanges to modify/amend their bye-laws, rules and regulations to:

a) Permit issuance of electronic contract note including all the standard pre-printed terms and conditions as given in the physical contract note.

b) Permit signing of the electronic contract note with a digital signature so as to make the modified format of the electronic contract note a valid legal document like the physical contract note.

c) Prescribe a standard format for the issuance of the electronic contract note.

## Market Design

Only two exchanges in India have been permitted to trade in derivatives contracts, the NSE and the BSE. NSE's contribution to the total turnover in the market is nearly 99%. Hence, the market design enumerated in this section is the derivative segment of NSE (hereafter referred to as the F&O segment). The different aspects of market design for F&O segment of the exchanges can be summarized as follows:

<table>
<tr><td>Trading Mechanism</td><td>NEAT-F&O system: a fully automated screen-based, anonymous order driven trading system for derivatives on a nationwide basis.<br>a. There are four entities in the trading system:<br>1. Trading members who can trade either on their own account or on behalf of their clients including participants.<br>2. Clearing members who are members of NSCCL and carry out risk management activities and confirmation/inquiry of trades through the trading system. These clearing members are also trading members and clear trades for themselves and/or others.<br>3. Professional clearing members are clearing members who are not trading members. Typically, banks and custodians become PCMs and clear and settle for their trading members.<br>4. Participants who are client of trading members like financial institutions. These clients may trade through multiple trading members, but settle their trades through a single clearing member only.</td></tr>
<tr><td>Membership</td><td>The members are admitted by NSE for its F&O segment in accordance with the rules and regulations of the Exchange and the norms specified by the SEBI. The eligibility criteria for membership on F&O segment has been mentioned in Chapter 4 Secondary Market – Trading. At the end of June 2009, there were 1020 members in the CM and F&O segment taken together.</td></tr>
<tr><td>Contracts available</td><td>• Index futures and index options contracts on NSE are based on Nifty 50 Index, CNX IT Index, Bank Nifty Index, and Nifty Midcap 50 index.<br>• Stock Futures and options, based on 180 individual securities.</td></tr>
<tr><td>Charges</td><td>Transaction charges payable to the exchange by the trading member for the trades executed by him on the F&O segment were fixed at Rs. 2 per lakh of turnover (0.002%) subject to a minimum of Rs. 1,00,000 per year. However for the transactions in the options sub-segment the transaction charges are levied on the premium value at the rate of 0.05% (each side) instead of on the strike price as levied earlier.<br>The NSE reviewed these transaction charges and further 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) –
<table>
<tr><th>Total Traded Value in a month</th><th>Revised Transaction Charges (Rs. per lakh of Traded Value)</th></tr>
<tr><td>Up to First Rs. 2500 cores</td><td>Rs. 1.90 each side</td></tr>
<tr><td>More than Rs. 2500 crores up to Rs. 7500 crores (on incremental volume)</td><td>Rs. 1.85 each side</td></tr>
<tr><td>More than Rs. 7500 crores up to Rs. 15000 crores (on incremental volume)</td><td>Rs. 1.80 each side</td></tr>
<tr><td>Exceeding Rs.15000 crores (on incremental volume)</td><td>Rs. 1.75 each side</td></tr>
</table></td></tr>
</table>

*Securities Transaction Tax*

The trading members are also required to pay securities transaction tax (STT) on non-delivery transactions at the rate of 0.017 (payable by the seller) for derivatives w. e. f June 1, 2008.

| Taxable securities transaction | Rate (%) | 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 | Sale Price | Seller |

Value of taxable securities transaction relating to an "option in securities" will be the option premium, in case of sale of an option in securities.

Value of taxable securities transaction relating to an "option in securities" will be the settlement price, in case of sale of an option in securities, where option is exercised.

**Contribution to Investor Protection Fund**

The trading members contribute to Investor Protection Fund of F&O segment at the rate of Re.1/- per Rs. 100 crore of the traded value (each side) in case of Futures segment and Rs.1/- per Rs. 100 crore of the premium amount (each side) in case of Options segment.

| | |
|---|---|
| **Clearing and Settlement** | • National Securities Clearing Corporation Limited (NSCCL) undertakes clearing and settlement of all trades executed on the futures and options (F&O) segment of the NSE.<br>• Index as well as stock options and futures are settled in cash. |

## Risk Management Framework

NSCCL has developed a comprehensive risk containment mechanism for the F&O segment. The salient features of risk containment mechanism on the F&O segment are:

a. The financial soundness of the members is the key to risk management. Therefore, the requirements for membership in terms of capital adequacy (net worth, security deposits) are quite stringent.

b. NSCCL charges an upfront initial margin for all the open positions of a Clearing Member. It specifies the initial margin requirements for each futures/options contract on a daily basis. It also follows Value- at- Risk (VaR) based margining computed through SPAN. The CM in turn collects the initial margin from the Trading Members (TMs) and their respective clients.

c. The open positions of the members are marked to market based on contract settlement price for each contract *at the end of the day*. The difference is settled in cash on a T+1 basis.

d. NSCCL's on-line position monitoring system monitors a CM's open position on a real-time basis. Limits are set for each CM based on his effective deposits. The on-line position monitoring system generates alert messages whenever a CM reaches 70 %, 80 %, 90 % and a disablement message at 100 % of the limit. NSCCL monitors the CMs for Initial Margin violation, Exposure margin violation, while TMs are monitored for Initial Margin violation and position limit violation.

e. CMs are provided with a trading terminal for the purpose of monitoring the open positions of all the TMs clearing and settling through him. A CM may set exposure limits for the TM clearing and settling through him. NSCCL assists the CM to monitor the intra-day limits set up by a CM and whenever a TM exceeds the limits, it stops that particular TM from further trading.

f. A member is alerted of his position to enable him to adjust his exposure or bring in additional capital. Margin violations result in disablement of trading facility for all TMs of a CM in case of a violation by the CM.

g. A separate settlement guarantee fund for this segment has been created out of the base capital of members.

The most critical component of risk containment mechanism for F&O segment is the margining system and on-line position monitoring. The actual position monitoring and margining is carried out on–line through Parallel Risk Management System (PRISM). PRISM uses SPAN®[1] (Standard Portfolio Analysis of Risk). SPAN system is for the purpose of computation of on-line margins, based on the parameters defined by SEBI.

## *Risk Containment Measures*

### A. Eligibility Criteria for stock selection

The stock selection criteria for derivatives trading in India ensure that stock is large in terms of market capitalization, turnover and has sufficient liquidity in the underlying market and there are no adverse issues related to market manipulation.

Eligibility Criteria for selection of stocks and indices for futures and options contracts

The following criteria was adopted by the Exchange w.e.f September 22, 2006, for selecting stocks and indices on which Futures & Options contracts are to be introduced.

1. Eligibility criteria of stocks

- The stock are to be chosen from amongst the top 500 stocks in terms of average daily market capitalization and average daily traded value in the previous six months on a rolling basis.
- The stock's median quarter-sigma order size over the last six months should be not less than Rs. 0.10 million (Rs. 1 lac). For this purpose, a stock's quarter-sigma order size would mean the order size (in value terms) required to cause a change in the stock price equal to one-quarter of a standard deviation.
- The market wide position limit in the stock should not be less than Rs. 500 million (Rs. 50 crores). The market wide position limit (number of shares) is be valued taking the closing prices of stocks in the underlying cash market on the date of expiry of contract in the month. The market wide position limit of open position (in terms of the number of underlying stock) on futures and option contracts on a particular underlying stock is :
  - 20% of the number of shares held by non-promoters in the relevant underlying security i.e. free-fl oat holding.
  - If an existing security fails to meet the eligibility criteria for three months consecutively, then no fresh month contract can be issued on that security.

    However, the existing unexpired contracts may be permitted to trade till expiry and new strikes may also be introduced in the existing contract months.

    Selection criteria for unlisted companies

    For unlisted companies coming out with initial public offering, if the net public offer is Rs. 500 crore or more, then the Exchange may consider introducing stock options and stock futures on such stocks at the time of its' listing in the cash market.

    Re-introduction of dropped stocks
- A stock which is dropped from derivatives trading may become eligible once again. In such instances, the stock is required to fulfill the eligibility criteria for three consecutive months to be re-introduced for derivatives trading.

  Eligibility criteria of stocks for derivatives trading especially on account of corporate restructuring

1 SPAN ® is a registered trademark of the Chicago Mercantile (CME) used here under license.

The eligibility criteria for stocks for derivatives trading on account of corporate restructuring is as under:

I. All the following conditions should be met in the case of shares of a company undergoing restructuring through any means, for eligibility to re-introduce derivative contracts on that company from the first day of listing of the post restructured company/(s)'s (as the case may be) stock (herein referred to as post restructured company) in the underlying market:

   a. the Futures and options contracts on the stock of the original (pre restructure) company were traded on any exchange prior to its restructuring;

   b. the pre restructured company had a market capitalisation of at least Rs.1000 crores prior to its restructuring;

   c. the post restructured company would be treated like a new stock and if it is, in the opinion of the exchange, likely to be at least one-third the size of the pre restructuring company in terms of revenues, or assets, or (where appropriate) analyst valuations; and

   d. in the opinion of the exchange, the scheme of restructuring does not suggest that the post restructured company would have any characteristic (for example extremely low free float) that would render the company ineligible for derivatives trading

II. If the above conditions are satisfied, then the exchange takes the following course of action in dealing with the existing derivative contracts on the pre-restructured company and introduction of fresh contracts on the post restructured company.

   a) In the contract month in which the post restructured company begins to trade, the Exchange shall introduce near month, middle month and far month derivative contracts on the stock of the restructured company.

   b) In subsequent contract months, the normal rules for entry and exit of stocks in terms of eligibility requirements would apply. If these tests are not met, the exchange does not permit further derivative contracts on this stock and future month series are not be introduced.

2. Eligibility criteria of Indices

- The Exchange may consider introducing derivative contracts on an index if the stocks contribution to 80% weight age of the index are individually eligible for derivative trading. However, no single ineligible stocks in the index shall have a weightage of more than 5% in the index."
- The above criteria is applied every month, if the index fails to meet the eligibility criteria for three months consecutively, then no fresh month contract shall be issued on that index. However, the existing unexpired contracts are permitted to trade till expiry and new strikes may also be introduced in the existing contracts.

### B. Margins Requirements

As pointed out above, one of the critical components of risk containment mechanism for F&O segment is the margining system. This is explained below:

- Initial margin: Margin in the F&O segment is computed by NSCCL upto client level for open positions of CMs/TMs. These are required to be paid up-front on gross basis at individual client level for client positions and on net basis for proprietary positions. NSCCL collects initial margin for all the open positions of a CM based on the margins computed by NSE-SPAN. A CM is required to ensure collection of adequate initial margin from his TMs up-front. The TM is required to collect adequate initial margins up-front from his clients.

- Initial margin requirement is based on 99% VaR and worst case loss over a specified horizon, which depends on the time in which Mark to Market margin is collected. A portfolio based margining approach has been adopted which takes an integrated view of the risk involved in the portfolio of each individual client comprising of his positions in all derivative contracts. The initial margin requirements are based on worst scenario, loss of a portfolio of an individual client to cover 99% VaR over a one day horizon across various scenarios of price changes and volatility shifts.
- Premium Margin: In addition to Initial Margin, Premium Margin is charged at client level. This margin is required to be paid by a buyer of an option till the premium settlement is complete.
- Assignment Margin for Options on Securities: Assignment margin is levied in addition to initial margin and premium margin. It is required to be paid on assigned positions of CMs towards interim and final exercise settlement obligations for option contracts on individual securities, till such obligations are fulfilled. The margin is charged on the net exercise settlement value payable by a CM towards interim and final exercise settlement.
- Exposure margins: Clearing members are subject to exposure margins in addition to initial margins.
- Client Margins: NSCCL intimates all members of the margin liability of each of their client. Additionally members are also required to report details of margins collected from clients to NSCCL, which holds in trust client margin monies to the extent reported by the member as having been collected form their respective clients.

### C. Exposure Monitoring and Position Limit

Another component of the risk management framework for derivatives segment is the stipulation of exposure limits and position limits on trading in different categories of contracts by market participants. These are summarized below:

| | Index Options | Index Futures | Stock Options | Stock Futures |
|---|---|---|---|---|
| Exposure Limit | 33.33 times the liquid net-worth of the member. Liquid net-worth is the total liquid assets deposited with the Exchange/ Clearing Corporation towards initial margin and the capital adequacy, LESS initial margin applicable to the total gross position at any given point of time of all trades cleared through the clearing member. | 33.33 times the liquid net-worth of the member. | Higher of 5% or 1.5 sigma of the notional value of gross open position. | Higher of 5% or 1.5 sigma of the notional value of gross open position. |
| Client Level | Any person or persons acting in concert who together own 15% or more of the open interest on a particular underlying index is required to report this fact to the Exchange/ Clearing Corporation. 1% of free fl oat market capitalization or 5% of<br>open interest in all derivative contracts in the same underlying stock (in terms of number of shares) which-ever is higher. | | | |

| | | | |
|---|---|---|---|
| Trading Member Level | The trading member position limits in equity index option contracts is higher of Rs.500 Crore or 15% of the total open interest in the market in equity index option contracts. This limit is applicable on open positions in all option contracts on a particular underlying index. | The trading member position limits in equity index futures contracts is higher of Rs.500 Crore or 15% of the total open interest in the market in equity index futures contracts. This limit is applicable on open positions in all futures contracts on a particular underlying index. | • For stocks having applicable market-wide position limit (MWPL) of Rs. 500 crores or more, the combined futures and options position limit is 20% of applicable MWPL or Rs. 300 crores, whichever is lower and within which stock futures position cannot exceed 10% of applicable MWPL or Rs. 150 crores, whichever is lower.<br>• For stocks having applicable MWPL less than Rs. 500 crores, the combined futures and options position limit would be 20% of applicable MWPL and futures position cannot exceed 20% of applicable MWPL or Rs. 50 crore which ever is lower |
| Market wide | | | The market wide limit of open position (in terms of the number of underlying stock) on futures and option contracts on a particular underlying stock should be 20% of the number of shares held by non-promoters in the relevant underlying security i.e. free–float holding. This limit is applicable on all open positions in all futures and option contracts on a particular underlying stock. |

**Position limits for FIIs, Mutual Funds:**

| Index Options | Index Futures | Stock Options | Stock Futures |
|---|---|---|---|
| Rs.500 Crore or 15 % of the total open interest of the market in index options, whichever is higher. This limit is applicable on open positions in all options contracts on a particular underlying index. | Rs. 500 crores or 15 % of the total open interest of the market in index futures, whichever is higher. This limit is applicable on open positions in all futures contracts on a particular underlying index. | • For stocks having applicable market-wide position limit (MWPL) of Rs. 500 crores or more, the combined futures and options position limit is 20% of applicable MWPL or Rs. 300 crores, whichever is lower and within which stock futures position cannot exceed 10% of applicable MWPL or Rs.150 crores, whichever is lower. | |
| In addition to the above, FIIs & MFs can exposure in equity index derivatives subject to the following limits:<br>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.<br>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 Rs. 500 crores, the combined futures and options position limit is 20% of applicable MWPL and futures position cannot exceed 20% of applicable MWPL or Rs. 50 crore which ever is lower. | |

## NSE – SPAN*

The objective of NSE-SPAN is to identify overall risk in a portfolio of all futures and options contracts for each member. The system treats futures and options contracts uniformly, while at the same time recognising the unique exposures associated with options portfolios, like extremely deep out-of-the-money short positions and inter-month risk.

Its over-riding objective is to determine the largest loss that a portfolio might reasonably be expected to suffer from one day to the next day based on 99% VaR methodology.

SPAN considers uniqueness of option portfolios. The following factors affect the value of an option:

- Underlying market price.
- Volatility (variability) of underlying instrument, and
- Time to expiration.
- Interest rate
- Strike price

As these factors change, the value of options maintained within a portfolio also changes. Thus, SPAN constructs scenarios of probable changes in underlying prices and volatilites in order to identify the largest loss a portfolio might suffer from one day to the next. It then sets the margin requirement to cover this one-day loss.

The complex calculations (e.g. the pricing of options) in SPAN are executed by NSCCL. The results of these calculations are called risk arrays. Risk arrays, and other necessary data inputs for margin calculation are provided to members daily in a file called the SPAN Risk Parameter fi le. Members can apply the data contained in the Risk Parameter files, to their specific portfolios of futures and options contracts, to determine their SPAN margin requirements.

Hence, members need not execute a complex option pricing calculation, which is performed by NSCCL. SPAN has the ability to estimate risk for combined futures and options portfolios, and also re-value the same under various scenarios of changing market conditions.

NSCCL generates six risk parameters file for a day taking into account price and volatilities at various time intervals and are provided on the website of the Exchange

### Market Design for Currency Derivatives

Currency derivatives have been launched on the NSE in August, 2008. The market design, including the risk management framework for this new product is summarized below:

### Eligibility criteria

The following entities are eligible to apply for membership subject to the regulatory norms and provisions of SEBI and as provided in the Rules, Regulations, Byelaws and Circulars of the Exchange –

a. Individuals;
b. Partnership Firms registered under the Indian Partnership Act, 1932;
c. Corporations, Companies or Institutions or subsidiaries of such Corporations, Companies or Institutions set up for providing financial services;
d. Such other person as may be permitted under the Securities Contracts (Regulation) Rules 1957

#### *Professional Clearing Member (PCM)*

The following persons are eligible to become PCMs of NSCCL for Currency Futures Derivatives provided they fulfill the prescribed criteria:

a. SEBI Registered Custodians; and
b. Banks recognised by NSEIL/NSCCL for issuance of bank guarantees

* SPAN® is a register trademark of Chicago Mercantile Exchange (CME) use here under license.

Banks authorized by the Reserve Bank of India under section 10 of the Foreign Exchange Management Act, 1999 as 'AD Category - I bank' are permitted to become trading and clearing members of the currency futures market of the recognized stock exchanges, on their own account and on behalf of their clients, subject to fulfilling the following minimum prudential requirements:

a. Minimum net worth of Rs. 500 crores.
b. Minimum CRAR of 10 per cent.
c. Net NPA should not exceed 3 per cent.
d. Made net profit for last 3 years.

The AD Category - I banks which fulfill the prudential requirements are required to lay down detailed guidelines with the approval of their Boards for trading and clearing of currency futures contracts and management of risks.

AD Category - I banks which do not meet the above minimum prudential requirements and AD Category - I banks which are Urban Co-operative banks or State Co-operative banks can participate in the currency futures market only as clients, subject to approval therefore from the respective regulatory Departments of the Reserve Bank.

### Other applicable eligibility criteria

a. Where the applicant is a partnership fi rm/corporate entity, the applicant shall identify a Dominant Promoter Group as per the norms of the Exchange at the time of making the application. Any change in the shareholding of the company including that of the said Dominant Promoter Group or their shareholding interest shall be effected only with the prior permission of NSEIL/SEBI.

b. The applicant has to ensure that at any point of time they would ensure that atleast individual/one partner/one designated director/compliance officer would have a valid NCFM certifi cation as per the requirements of the Exchange. The above norm would be a continued admittance norm for membership of the Exchange.

c. An applicant must be in a position to pay the membership and other fees, deposits etc, as applicable at the time of admission within three months of intimation to him of admission as a Trading Member or as per the time schedule specified by the Exchange.

d. The trading members and sales persons in the currency futures market must have passed a certification programme which is considered adequate by SEBI. The approved users and sales personnel of the trading member should have passed the certification programme.

e. To begin with, FIIs and NRIs would not be permitted to participate in currency futures market.

f. Strict enforcement of "Know your customer" rule is required. Therefore every client shall be registered with the member. The members are also required to make their clients aware of the risks involved in derivatives trading by issuing to the client the Risk Disclosure Document and obtain a copy of the same duly signed by the client. The members shall enter into a member constituent agreement as stipulated.

g. The Exchange may specify such standards for investor service and infrastructure with regard to any category of applicants as it may deem necessary, from time to time.

## Position limits

*Client Level Position Limit:* The client level position limit as prescribed in the Report of the RBI-SEBI Standing Technical Committee shall be applicable where the gross open position of the client across all contracts exceeds 6% of the total open interest or 5 million USD, whichever is higher.

The client level gross open position would be computed on the basis of PAN across all members.

*Trading Member Level Position Limit:* The trading member position limit shall be higher of 15% of the total open interest or 25 million USD. However, the position limit for a Trading Member, which is a bank, shall be higher of 15% of the total open interest or 100 million USD.

## Margins

- *Initial Margins*: Initial margin shall be payable on all open positions of Clearing Members, upto client level, and shall be payable upfront by Clearing Members in accordance with the margin computation mechanism and/ or system as may be adopted by the Clearing Corporation from time to time. Initial Margin shall include SPAN margins, futures final settlement margin and such other additional margins, that may be specified by the Clearing Corporation from time to time.
- *Calendar Spread Margins:* A currency futures position in one expiry month which is hedged by an offsetting position in a different expiry month would be treated as a calendar spread. The calendar spread margin shall be Rs. 250/- per contract for all months of spread. The benefit for a calendar spread would continue till expiry of the near month contract.
- *Minimum Margins:* The minimum margin percentage shall be 1.75% on the first day of currency futures trading and 1 % thereafter which shall be scaled up by look ahead period as may be specified by the Clearing Corporation from time to time.
- *Futures Final Settlement Margin:* Futures Final Settlement Margin shall be levied at the clearing member level in respect of the final settlement amount due. The final settlement margins shall be levied from the last trading day of the contract till the completion of pay-in towards the Final Settlement.
- *Extreme Loss margins*: Clearing members shall be subject to extreme loss margins in addition to initial margins. The applicable extreme loss margin shall be 1% on the mark to market value of the gross open positions or as may be specified by the relevant authority from time to time.

## Market Design for Interest Rate Futures

### About the product

- 10YGS7 Interest Rate Futures contract will be based on notional 10 year coupon bearing GOI security.
- The notional coupon will be 7% per annum with semi-annual compounding.
- 10YGS7 futures contracts will have a maximum of 12 month expiration cycle.
- Quarterly contracts will be available for trading. To begin with December 2009 and March 2010 contracts will be made available for trading. A new quarterly expiry contract will be introduced on the expiration of a contract.
- The 10YGS7 futures contracts will expire seven working days prior to the last business day of the expiry month. The IRF contracts will expire at the normal market closing time on the expiry day.
- Permitted lot size for 10YGS7 future contracts will be Rs 2 lacs face value of GOI securities equivalent to 2000 units.
- Members will place orders in terms of number of lots.
- The day count convention for interest payments would be on the basis of a 360-day year, consisting of 12 months of 30 days each and half yearly coupon payment.
- Price steps (tick size) in respect of all IRF contracts admitted to dealing on the Exchange will be Rs.0.0025.
- Quantity Freeze for IRF contracts will be 501 lots or greater i.e. orders having quantity up to 500 lots will be allowed.

### Settlement of contracts

- The contract will be settled by physical delivery of deliverable grade securities using the electronic book entry system of the existing Depositories, namely, National Securities Depositories Ltd. and Central Depository Services (India) Ltd. and Public Debt Office of the Reserve Bank.

- NSE has constituted a group of market participants to advise the Exchange/Clearing Corporation on the securities which may be included in the deliverable basket. Based on the recommendations of this group, it has been decided that GoI securities maturing at least 8 years but not more than 12 years from the first day of the delivery month with minimum total outstanding stock of Rs 10,000 crore will be eligible deliverable grade securities.

### Membership and trading

- For participating in Interest Rate Futures (IRF) all members registered by SEBI for trading in Currency Derivatives Segment (CDS)/ Futures & Options (F&O) Segment are eligible to trade in IRF, subject to meeting the Balance Sheet net worth requirement of Rs. 1 crore for a trading member and Rs 10 crores for a clearing member.
- All members registered by SEBI for trading in Currency Derivatives Segment (CDS)/ Futures & Options (F&O) Segment shall be eligible to trade in IRF, subject to meeting the Balance Sheet net worth requirement of Rs. 1 crore for a trading member and Rs 10 crores for a clearing member. New members interested in participating in IRF would be required to register in CDS.
- RBI-SEBI standing Technical Committee has also allowed FIIs and NRIs to trade in the Interest Rate Futures.

### Interest Rate Futures (Reserve Bank) Directors, 2009

The Reserve Bank of India (RBI) issued Interest Rate Futures (Reserve Bank) Directions, 2009, on August 28, 2009, covering the framework for trading of IRFs in recognized exchanges for persons dealing in the instrument. The highlights of the directions are:

- These directions define the Interest Rate futures product; list out the permitted instruments and features of the product.
- Foreign Institutional Investors, registered with Securities and Exchange Board of India, have been permitted to purchase or sell Interest Rate Futures subject to the condition that the total gross long (bought) position in cash and Interest Rate Futures 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 Interest Rate Futures at any point in time.
- No scheduled bank or such other agency falling under the regulatory purview of the Reserve Bank 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 Interest Rate Futures market without the permission from the respective regulatory Department of the Reserve Bank.
- The agencies falling under the regulatory purview of any other regulator established by law are not allowed to participate in Interest Rate Futures market except with the permission of their respective regulators and participation of such agencies as members or clients will be in accordance with the guidelines issued by the regulator concerned.

## Market Outcome

### Trading Volumes

NSE's derivatives market witnessed an increase in volumes over the period 2003-2007. The market had achieved a growth of 522% over this period with volumes in the derivatives segment of NSE and BSE increasing from USD 494 bn in 2003-04 to USD 3336 bn in 2007-08.

However, the year 2008-09 saw a drop in volumes in this segment largely due to the global slowdown in the derivatives segment as an aftereffect of the sub-prime crisis. The turnover in this segment on the NSE fell 16% in 2008-09 as compared to 2007-08. The turnover on the BSE fall was a dramatic 97% over this period (Table 7-5).

The share of BSE in the total derivative markets turnover fell from 1.81% in 2007-08 to 0.11% in 2008-09.

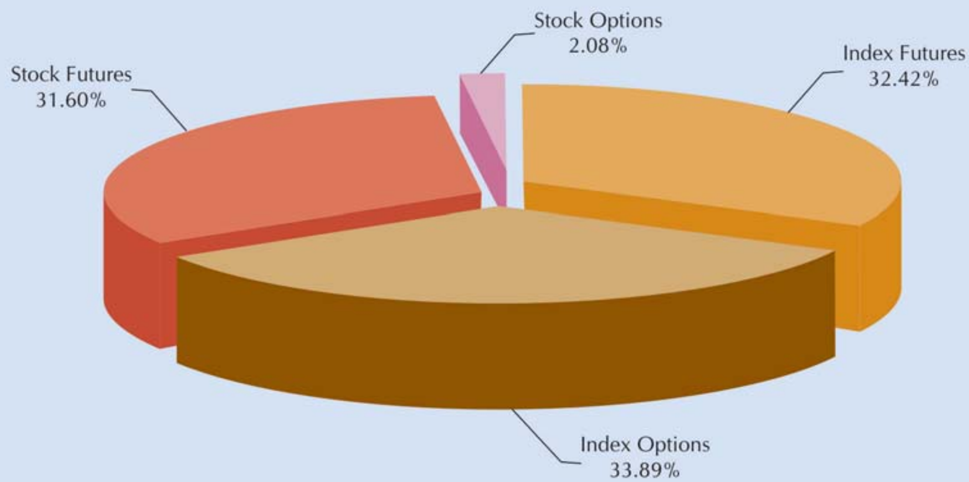
**Table 7-5: Trade Details of Derivatives Market**

| Month/ Year | NSE | | | BSE | | | TOTAL | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of Contracts Traded | Turnover (Rs. mn.) | Turnover (US$ million) | No. of Contracts Traded | Turnover (Rs.mn.) | Turnover (US$ million) | No. of Contracts Traded | Turnover (Rs. mn.) | Turnover (US$ million) |
| **2003-04** | **56,886,776** | **21,306,492** | **491,046** | **382,258** | **124,520** | **2,870** | **57,269,034** | **21,431,012** | **493,916** |
| **2004-05** | **77,017,185** | **25,470,526** | **582,183** | **531,719** | **161,120** | **3,683** | **77,548,904** | **25,631,646** | **585,866** |
| **2005-06** | **157,619,271** | **48,242,504** | **1,081,428** | **103** | **60** | **1.34** | **157,619,374** | **48,242,564** | **1,081,429** |
| **2006-07** | **216,883,573** | **73,562,714** | **1,687,605** | **1,781,670** | **590,060** | **13,537** | **218,665,243** | **74,152,774** | **1,701,142** |
| **2007-08** | **425,013,200** | **130,904,779** | **3,275,076** | **7,453,371** | **2,423,080** | **60,622** | **432,466,571** | **133,327,859** | **3,335,698** |
| Apr-08 | 33,729,824 | 7,664,307 | 150,428 | 166,607 | 40,630 | 797 | 33,896,431 | 7,704,937 | 151,225 |
| May-08 | 33,840,055 | 7,979,084 | 156,606 | 179,060 | 45,580 | 895 | 34,019,115 | 8,024,664 | 157,501 |
| Jun-08 | 51,601,129 | 10,840,643 | 212,770 | 59,962 | 13,600 | 267 | 51,661,091 | 10,854,243 | 213,037 |
| Jul-08 | 60,797,360 | 11,601,740 | 227,708 | 37,802 | 7,660 | 150 | 60,835,162 | 11,609,400 | 227,859 |
| Aug-08 | 46,893,543 | 9,574,448 | 187,919 | 16,753 | 3,730 | 73 | 46,910,296 | 9,578,178 | 187,992 |
| Sep-08 | 62,111,566 | 11,978,724 | 235,107 | 17,502 | 3,710 | 73 | 62,129,068 | 11,982,434 | 235,180 |
| Oct-08 | 63,134,828 | 9,416,462 | 184,818 | 11,706 | 1,830 | 36 | 63,146,534 | 9,418,292 | 184,854 |
| Nov-08 | 58,145,378 | 7,453,561 | 146,292 | 3387 | 490 | 10 | 58,148,765 | 7,454,051 | 146,301 |
| Dec-08 | 64,793,766 | 8,291,663 | 162,741 | 2131 | 300 | 6 | 64,795,897 | 8,291,963 | 162,747 |
| Jan-09 | 63,502,665 | 7,781,184 | 152,722 | 844 | 120 | 2 | 63,503,509 | 7,781,304 | 152,724 |
| Feb-09 | 55,744,576 | 7,123,703 | 139,818 | 454 | 60 | 1 | 55,745,030 | 7,123,763 | 139,819 |
| Mar-09 | 63,095,807 | 10,399,305 | 204,108 | 294 | 40 | 1 | 63,096,101 | 10,399,345 | 204,109 |
| **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** |
| Apr-09 | 56,210,317 | 11,433,625 | 238,847 | 113 | 20 | 0.42 | 56,210,430 | 11,433,645 | 238,848 |
| May-09 | 48,285,515 | 12,272,524 | 256,372 | 393 | 80 | 1.67 | 48,285,908 | 12,272,604 | 256,374 |
| Jun-09 | 52,408,197 | 15,319,804 | 320,029 | 5 | 0 | 0.00 | 52,408,202 | 15,319,804 | 320,029 |
| **April 09 - June 09** | **156,904,029** | **39,025,953** | **815,249** | **511** | **100** | **2.09** | **156,904,540** | **39,026,053** | **815,251** |

*Note: For conversion of data in USD mn, the exchange rate of last day of March of the financial year is taken for the full financial year For data for April-June09, exchange rate of last day of June'09 is taken for conversion to USD mn.*

Looking at the product-wise turnover on the NSE (Table 7-6 and Chart 7-1), it is seen that stock futures which accounted for the highest percentage turnover among the various products (58%) in 2007-08, saw its share fall to 32% in 2008-09. On the other hand, the share of Index options increased dramatically from 10.4% in 2007-08 to 34% in 2008-09. The share of Index futures' turnover in total turnover was 32% and that of stock options was 2% in 2008-09. Thus, it is seen that index options were more popular that stock futures during 2008-09. This trend continued in the first quarter of 2009-10.

Chart 7-1: Product-wise Distribution of Turnover of F&O Segment of NSE, 2008-09




## Open Interest

Open interest is the total number of open contracts on a security, that is, the number of future contracts or options contracts that have not been exercised, expired or fulfilled by delivery. Hence, we can say that the open interest position at the end of each day represents the net increase or decrease in the number of contracts for that day. Increasing open interest means that fresh funds are flowing in the market, while declining open interest means that the market is liquidating. The highest open interest in index futures at NSE was recorded at 8,84,082 contracts on April 15, 2009. The daily open interest for near month index futures at NSE is presented in (Chart 7-2).

Chart 7-2: Daily Open Interest for Near Month Nifty Futures for April 2008- June 2009

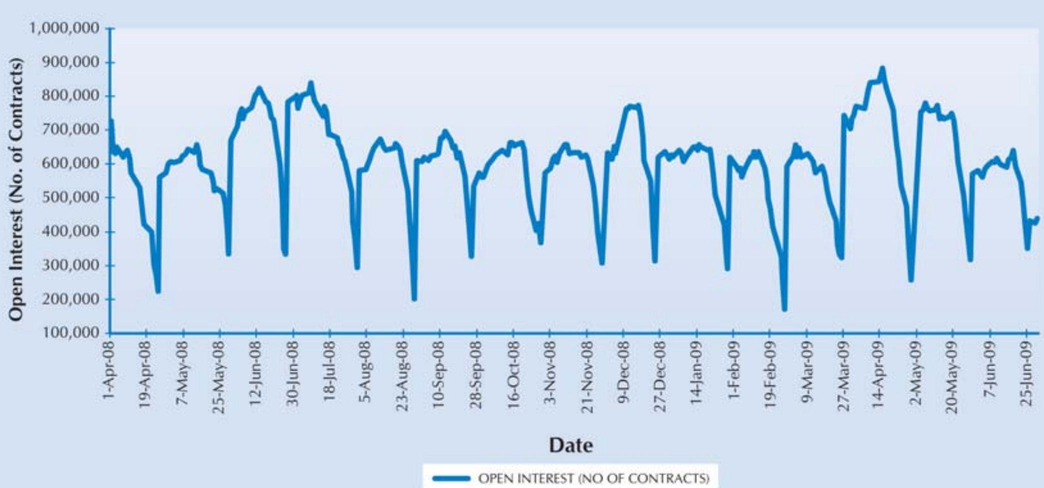


**Table 7-6: Product wise turnover on the derivatives segment of NSE**

| Year | Index Futures | | | Stock Futures | | | Index Options | | | Stock Options | | | Total | | Average Daily Turn-over (Rs. mn.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of contracts | Turnover (Rs.mn.) | % share in total turn-over | No. of contracts | Turnover (Rs. mn.) | % share in total turn-over | No. of contracts | Notional Turnover (Rs.mn.) | % share in total turn-over | No. of contracts | Notional Turnover (Rs. mn) | % share in total turn-over | No. of con-tracts | Turnover (Rs. 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** |
| Apr-08 | 12,063,172 | 2,801,003 | 37 | 15,601,531 | 3,369,009 | 44 | 5,365,231 | 1,335,649 | 17 | 699,890 | 158,647 | 2 | 33,729,824 | 7,664,307 | 383,215 |
| May-08 | 11,161,427 | 2,676,407 | 34 | 16,693,260 | 3,801,607 | 48 | 5,078,960 | 1,290,665 | 16 | 906,408 | 210,405 | 3 | 33,840,055 | 7,979,083 | 398,954 |
| Jun-08 | 17,941,870 | 3,779,390 | 35 | 19,154,946 | 3,759,867 | 35 | 13,564,436 | 3,087,086 | 28 | 939,877 | 214,299 | 2 | 51,601,129 | 10,840,643 | 516,221 |
| Jul-08 | 20,423,139 | 3,953,800 | 34 | 22,232,227 | 3,826,008 | 33 | 16,889,704 | 3,572,086 | 31 | 1,252,290 | 249,847 | 2 | 60,797,360 | 11,601,740 | 504,423 |
| Aug-08 | 14,433,984 | 3,004,489 | 31 | 17,594,216 | 3,240,109 | 34 | 13,835,642 | 3,121,017 | 33 | 1,029,701 | 208,834 | 2 | 46,893,543 | 9,574,448 | 478,722 |
| Sep-08 | 19,332,343 | 3,801,978 | 32 | 20,076,138 | 3,327,285 | 28 | 21,398,430 | 4,616,227 | 39 | 1,304,655 | 233,234 | 2 | 62,111,566 | 11,978,724 | 570,415 |
| Oct-08 | 21,649,445 | 3,249,617 | 35 | 19,858,409 | 2,392,639 | 25 | 20,737,381 | 3,645,096 | 39 | 889,593 | 129,111 | 1 | 63,134,828 | 9,416,462 | 470,823 |
| Nov-08 | 19,471,367 | 2,569,497 | 34 | 17,949,270 | 1,872,113 | 25 | 19,920,924 | 2,921,343 | 39 | 803,817 | 90,608 | 1 | 58,145,378 | 7,453,561 | 414,087 |
| Dec-08 | 20,007,895 | 2,699,973 | 33 | 22,262,785 | 2,304,656 | 28 | 21,158,779 | 3,136,154 | 38 | 1,364,307 | 150,880 | 2 | 64,793,766 | 8,291,663 | 394,841 |
| Jan-09 | 17,695,542 | 2,341,405 | 30 | 22,814,332 | 2,158,303 | 28 | 21,215,671 | 3,092,713 | 40 | 1,777,120 | 188,762 | 2 | 63,502,665 | 7,781,184 | 389,059 |
| Feb-09 | 15,750,767 | 2,056,792 | 29 | 17,156,838 | 1,851,210 | 26 | 21,475,201 | 3,055,990 | 43 | 1,361,770 | 159,711 | 2 | 55,744,576 | 7,123,703 | 374,932 |
| Mar-09 | 20,497,152 | 2,766,765 | 27 | 10,184,028 | 2,893,617 | 28 | 31,448,085 | 4,440,992 | 43 | 966,542 | 297,931 | 3 | 63,095,807 | 10,399,305 | 519,965 |
| Apr-09 | 18,662,382 | 3,017,641 | 26 | 9,858,642 | 3,563,831 | 31 | 26,881,970 | 4,537,882 | 40 | 807,323 | 314,271 | 3 | 56,210,317 | 11,433,625 | 672,566 |
| May-09 | 16,617,516 | 3,174,151 | 26 | 9,528,178 | 4,481,548 | 37 | 21,495,541 | 4,305,147 | 35 | 644,280 | 311,679 | 3 | 48,285,515 | 12,272,524 | 613,626 |
| Jun-09 | 16,207,959 | 3,469,341 | 23 | 11,127,649 | 5,896,575 | 38 | 24,189,642 | 5,456,433 | 36 | 882,947 | 497,455 | 3 | 52,408,197 | 15,319,804 | 696,355 |
| **(Apr-June09)** | **51,487,857** | **9,661,134** | **25** | **30,514,469** | **13,941,954** | **36** | **72,567,153** | **14,299,461** | **37** | **2,334,550** | **1,123,405** | **3** | **156,904,029** | **39,025,953** | **661,457** |

## Implied Interest Rate

In the futures market, implied interest rate or cost of carry is often used inter-changeably. Cost of carry is more appropriately used for commodity futures, as by definition it means the total costs required to carry a commodity or any other good forward in time. The costs involved are storage cost, insurance cost, transportation cost and the financing cost. In case of equity futures, the carry cost is the cost of financing minus the dividend returns. Assuming zero dividends, the only relevant factor is the cost of financing.

Implied interest rate is the percentage difference between the future value of an index and the spot value, annualized on the basis of the number of days before the expiry of the contract. Carry of cost 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 profitability of an arbitrage position. Theoretically, if the futures price is less than the spot price plus cost of carry or if the futures price is greater than the spot price plus cost of carry, arbitrage opportunities exist.

The futures prices are available for different contracts at different points of time. (Chart 7-3) presents Nifty 50 futures close prices for the near month contracts, and the spot Nifty 50 close values from April 2008 to June 2009. The difference between the future and the spot price is called *basis*. As the time to expiration approaches, the basis reduces. Daily implied interest rate for Nifty 50 futures from April 2008 to June 2009 is presented in (Chart 7-4). The implied interest rate for near month Nifty 50 futures as on last trading of the month is presented in (Table 7-7).

**Chart 7-3: Nifty Futures and Spot Price (April 2008-June 2009)**

**Chart 7-4: Implied Interest Rate for Near Month Nifty Futures (April 1, 2008 to June 30, 2008)**

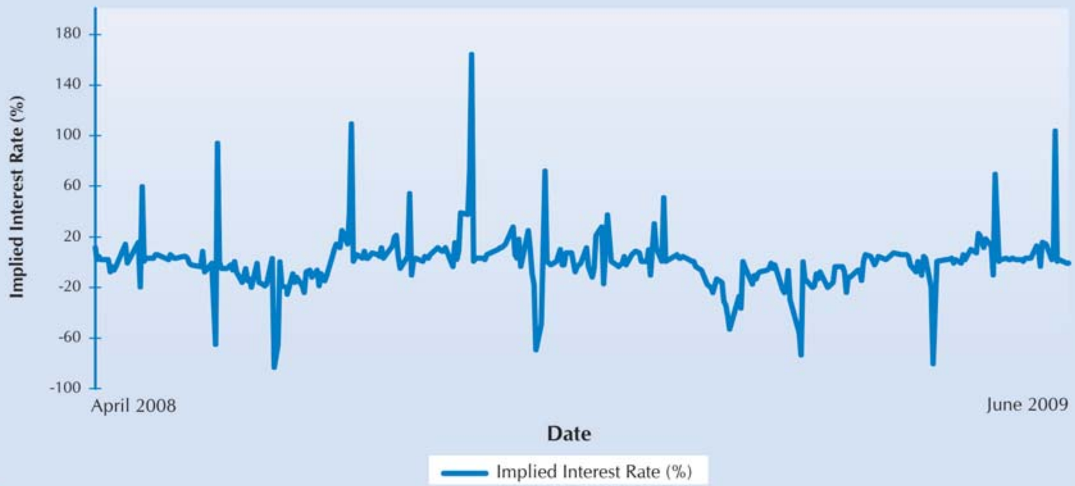



**Table 7-7: Implied Interest Rate for Near Month Nifty Futures (April 2008 - June 2009)**

| Month | Expiry Date of near month Contract | Closing Future Price | Closing Spot Price | Implied Interest Rate (%) |
|---|---|---|---|---|
| Apr-08 | 24-Apr-2008 | 5188.80 | 5165.90 | 5.57 |
| May-08 | 29-May-2008 | 4850.10 | 4870.10 | -5.56 |
| Jun-08 | 26-Jun-2008 | 3972.75 | 4040.55 | -19.92 |
| Jul-08 | 31-Jul-2008 | 4332.05 | 4332.95 | 0.00 |
| Aug-08 | 28-Aug-2008 | 4370.55 | 4360.00 | 3.27 |
| Sep-08 | 25-Sep-2008 | 3927.35 | 3921.20 | 1.97 |
| Oct-08 | 29-Oct-2008 | 2881.90 | 2885.60 | -1.67 |
| Nov-08 | 28-Nov-2008 | 2756.25 | 2755.10 | 0.00 |
| Dec-08 | 24-Dec-2008 | 2965.40 | 2959.15 | 2.66 |
| Jan-09 | 29-Jan-2009 | 2868.15 | 2874.80 | -3.13 |
| Feb-09 | 26-Feb-2009 | 2735.50 | 2763.65 | -13.84 |
| Mar-09 | 26-Mar-2009 | 3015.25 | 3020.95 | -2.38 |
| Apr-09 | 29-Apr-2009 | 3473.90 | 3473.95 | 0.00 |
| May-09 | 28-May-2009 | 4453.50 | 4448.95 | 1.38 |
| Jun-09 | 25-Jun-2009 | 4289.75 | 4291.10 | -0.38 |

Note: (1) The implied interest rate is calculated on the last trading day of the month for Near Month Nifty Futures
(2) Number of days in a year have been taken as 365

*Source:* NSE.

## Implied Volatility

Volatility is one of the important factors, which is taken into account while pricing options. It is a measure of the amount and the speed of price change. To estimate future volatility, a time series analysis of historical volatility may be carried out to know the future movements of the underlying. Alternatively, one could work out implied volatility by entering all parameters into an option pricing model and then solving it for volatility. For example, the Black Scholes model solves for the fair price of the option by using the following parameters–days to expiry, strike price, spot price, and volatility of underlying, interest rate, and dividend. This model could be used in reverse to arrive at implied volatility by putting the current price of the option prevailing in the market.

Putting it simply implied volatility is the estimate of how volatile the underlying will be from the present until the currency of option. If volatility is high, then the options premiums are relatively expensive and vice-versa. However, implied volatility estimate can be biased, especially if they are based upon options that are thinly traded samples.

## Settlement

All derivative contracts are currently cash settled. During 2008-09, the cash settlement amounted to Rs. 9,18,400 million. The detail of the settlement statistics in the F&O segment is presented in (Table 7-8).

**Table 7-8: Settlement Statistics in F&O Segment**

| Month/Year | (In Rs. mn.) | | | | | (In US $ mn.) |
|---|---|---|---|---|---|---|
| | Index/Stock Futures | | Index/Stock Options | | Total | Total |
| | MTM Settlement | Final Settlement | Premium Settlement | Exercise Settlement | | |
| **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** |
| Apr-08 | 53,915 | 667 | 7,860 | 1,640 | 64,082 | 1,258 |
| May-08 | 56,015 | 2,036 | 6,036 | 1,908 | 65,995 | 1,295 |
| Jun-08 | 91,828 | 1,373 | 11,260 | 3,419 | 107,880 | 2,117 |
| Jul-08 | 110,700 | 595 | 10,159 | 2,088 | 123,543 | 2,425 |
| Aug-08 | 48,448 | 1,293 | 7,421 | 1,455 | 58,617 | 1,150 |
| Sep-08 | 71,204 | 2,259 | 9,214 | 1,786 | 84,464 | 1,658 |
| Oct-08 | 94,092 | 543 | 13,841 | 14,189 | 122,665 | 2,408 |
| Nov-08 | 57,821 | 460 | 7,855 | 1,604 | 67,740 | 1,330 |
| Dec-08 | 43,007 | 1,517 | 7,706 | 5,819 | 58,048 | 1,139 |
| Jan-09 | 44,767 | 583 | 9,364 | 1,548 | 56,262 | 1,104 |
| Feb-09 | 32,471 | 654 | 8,005 | 1,342 | 42,473 | 834 |
| Mar-09 | 47,668 | 3,002 | 10,885 | 5,077 | 66,632 | 1,308 |
| **2009-10 (April-June 09)** | **196,340** | **5,724** | **31,495** | **21,367** | **254,925** | **5,325** |
| Apr-09 | 48,555 | 2,736 | 9,445 | 4,948 | 65,685 | 1,372 |
| May-09 | 78,178 | 1,412 | 12,892 | 10,689 | 103,171 | 2,155 |
| Jun-09 | 69,607 | 1,575 | 9,158 | 5,730 | 86,070 | 1,798 |

## Business growth in Currency derivatives segment

The Currency Derivatives Segment (CDS) on the NSE has witnessed high growth over the first ten months of introduction (September 08 to June 09). Table 7-7 presents the growth in CDS volumes and open interest on the NSE. The volumes in this segment have increased by 1200% in June 09 compared to September 08 levels. The average daily turnover on the NSE stood at Rs 34,256 mn in June 09 and open interest was 267400 contract (or Rs 1285 mn) as at end June 09.

**Table: 7-9: Business Growth of Currency Futures**

| Month/ Year | No. of Contracts Traded | Trading Value (Rs. mn) | Average Daily Trading Value (Rs.mn) | Open Interest at the end of | |
|---|---|---|---|---|---|
| | | | | No. of Contracts | Trading Value (Rs. mn.) |
| * Sep-08 | 1,258,099 | 57,630 | 2,620 | 90,871 | 428 |
| Oct 08 | 2,275,261 | 111,419 | 5,571 | 170,202 | 851 |
| Nov 08 | 3,233,679 | 159,690 | 8,872 | 146,262 | 737 |
| Dec 08 | 4,681,593 | 228,400 | 10,876 | 177,520 | 867 |
| Jan 09 | 4,900,904 | 239,799 | 11,990 | 254,797 | 1,247 |
| Feb 09 | 6,416,059 | 317,614 | 16,717 | 315,317 | 1,612 |
| March 09 | 9,907,173 | 508,172 | 26,746 | 257,554 | 1,313 |
| **Aug-08-March 09** | **32,672,768** | **1,622,724** | **11,674** | **257,554** | **1,313** |
| April 09 | 7,851,502 | 393,857 | 24,616 | 206,620 | 1,039 |
| May 09 | 13,682,468 | 664,315 | 33,216 | 318,203 | 1,504 |
| Jun 09 | 15,724,507 | 753,627 | 34,256 | 267,400 | 1,285 |
| **April-June 2009** | **37,258,477** | **1,811,798** | **31,238** | **267,400** | **1,285** |

* Includes turnover details for August 29,2008- the first day of trading of Currency futures at NSE.

# Policy Debates[2]

## Road Ahead for currency futures markets in India

Market statistics of the first year of the launch of exchange traded currency futures reveal growing interest in the markets. However, these markets have not been able to evince the kind of activity that OTC markets are witnessing. Some of the limitations of these markets which have restricted its growth can be identified as:

a. The positions limits for clients trading in this segment are USD 10 mn or 6% of open interest whichever is higher and for trading members it is USD 50 mn or 15% of open interest, whichever is higher, with the limit being USD 100 million or 15% of open interest for trading members who are banks. These limits are considered as a hindrance for larger transactions by market players.

b. To start with Foreign Institutional Investors (FIIs) have not been permitted to participate in the exchange traded currency markets. This has in effect restricted the liquidity that FIIs could have otherwise created. FIIs are already active in Dubai Gold and Commodity Exchange (DGCX). There is opportunity for business for domestic exchanges and intermediaries to be created in bringing this market onshore.

c. The offshore Non Deliverable Forward (NDF) market in the Indian Rupee has been witnessing increasing volumes. Deutsche Bank estimates average daily trading volume of USD 800 million during 2008-09 in the NDF markets for Indian rupee[3]. Most major foreign banks offer NDFs, but Indian banks are barred from doing so. These markets have evolved for the Indian Rupee, as for other emerging market currencies, following foreign exchange convertibility restrictions. It is serving as an avenue for non-domestic players, private companies and investors in India to hedge foreign currency exposure. This market also derives liquidity from non-residents wishing to speculate in the Indian rupee without exposure to the currency and from arbitrageurs who try to exploit the differentials in the prices in the onshore and offshore markets. Though foreign investors can now transact in the onshore Indian forward markets with greater flexibility (following various measures listed

2 The views and approaches reflected in the policy debates are not necessarily of the NSE.
3 Reported in Asian Capital Markets Monitor of ADB, April, 2009.

earlier in the paper), allowing them access to the exchange traded currency futures platform would further help in getting the volumes in the NDF market onshore and enhance the liquidity on the domestic exchanges.

## Introduction of Credit derivatives

The discussion among the regulators on the introduction of credit derivative products in India dates back to 2003 when an internal "Working Group on introduction of Credit Derivatives in India" of the Reserve Bank of India (RBI) came out with its recommendations on the road map for launch of this product. The Group recognized the importance of credit derivatives for the banking sector in particular, as a means to diversify credit risk, improve earning and lower its risk profile. It recommended that, to begin with, banks, financial institutions, NBFCs, mutual funds, insurance companies and corporates may be allowed to introduce credit derivatives subject to compliance with certain risk management parameters, exposure norms, capital adequacy requirements etc. This was envisaged to be allowed for the purpose of managing credit risk and not to take positions with a trading intent. Further, banks were to be permitted to use only simple credit derivative structures like CDS and CLN involving single reference entities. It was proposed that non-resident entities cannot be parties to credit derivative transactions in the domestic market for the present.

However, the recommendations of the report were not carried forward and RBI, in May 2007 issued draft guidelines for introduction of CDS. The draft regulation proposed introduction of single entity CDS instruments allowing protection selling and buying to residential financial entity. However, this too has not been carried forward since RBI is taking a very cautious approach to the whole issue particularly in the light of the sub-prime crisis.

RBI's Committee on Financial Sector Assessment (CFSA), which submitted its report in May, 2009, on the issue of credit derivatives, noted as follows:

*"The unbridled proliferation of complex credit derivatives and excessive risk transfer by adoption of the originate-to-distribute model is recognised as one of the root causes of the current financial crisis. The recent credit turmoil has also underscored the importance of liquidity risk arising from off-balance sheet commitments, implicit or explicit, of the credit intermediaries. The Reserve Bank had put in place regulatory guidelines that were aligned with global best practices while tailoring them to meet country-specific requirements. While the development of markets for credit derivatives and asset securitization products could play a critical role in furthering economic growth, this requires to be pursued in a gradual manner by sequencing reforms and putting in place appropriate safeguards before introduction of such products."*

Thus, for the present, introduction of this product in India has been kept on hold.

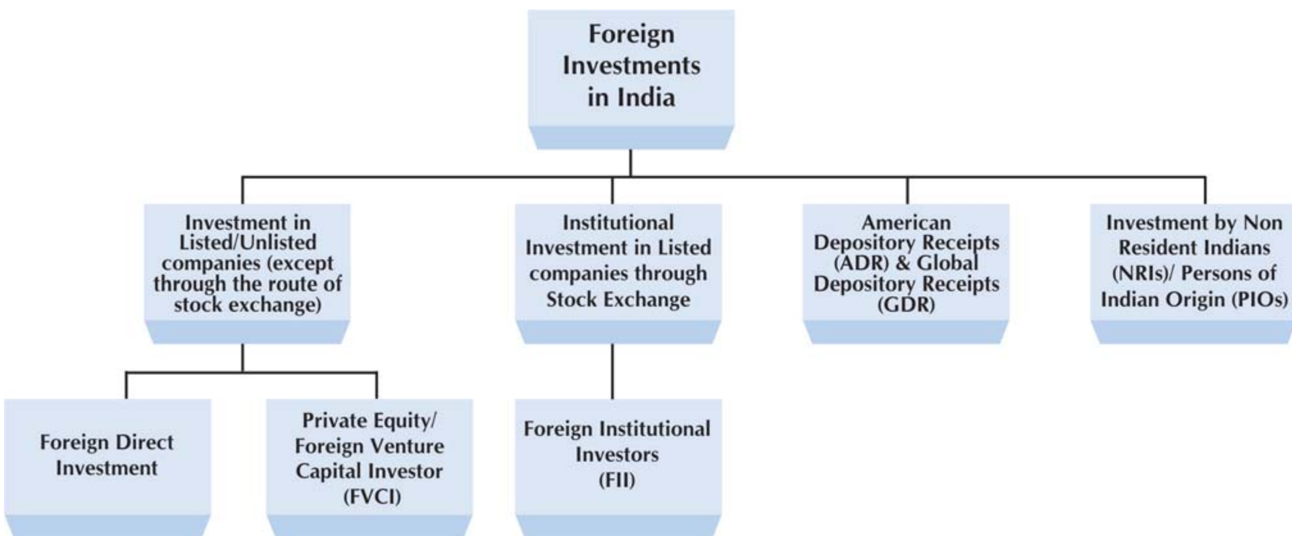
### *Way forward*

It is widely held that the US sub-prime crisis in the housing mortgage market has been aggravated partly because the mortgages had been repackaged and sold as collateralised debt obligations and other exotic derivative products to financial institutions, pension funds and individuals. Thus, agents not directly involved in the sub-prime market have also been impacted as their asset quality has deteriorated. Notwithstanding this the basic logic and arguments in favour of derivatives of this kind, mainly that of efficiently managing credit risk, continues to hold strong. There is a need to recognise that the main problems that arose out of the credit derivatives markets were primarily because of its OTC nature, which implied no or minimal regulatory oversight. India can benefit from the lapses of the developed world in effectively controlling this market and develop exchange traded markets for this product rather than largely unregulated OTC markets. This will be adding another new product in the array of derivative products available to market participants, along with ensuring market discipline.

# Foreign Investments in India

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 Foreign Direct Investment, 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 (PIO) in various forms (Chart 8-1).

Chart 8-1: Foreign Investment in India




## Foreign Institutional Investments

### 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, India's policy stance has changed substantially, with a focus on harnessing the growing global foreign direct investment (FDI) and portfolio flows. The broad approach to reform in the external sector after the Gulf crisis was delineated in the Report of the High Level Committee on Balance of Payments (Chairman: C. Rangarajan). It recommended, inter alia, a compositional shift in capital flows away from debt to non-debt creating flows; strict regulation of external commercial borrowings, especially short-term debt; discouraging volatile elements of flows from non-resident Indians (NRIs); gradual liberalisation of outflows; and dis-intermediation of Government in the flow of external assistance.

1 Source: Report of Expert Group on Encouraging FII flows and checking the vulnerability of capital markets to speculative flows, November, 2005.

After the launch of the reforms in the early 1990s, there was a gradual shift towards capital account convertibility. From September 14, 1992, with suitable restrictions, FIIs and Overseas Corporate Bodies (OCBs)[2] were permitted to invest in financial instruments. The policy framework for permitting FII investment was provided under the Government of India guidelines vide Press Note dated September 14, 1992, which enjoined upon FIIs to obtain an initial registration with SEBI and also RBI's general permission under FERA. Both SEBI's registration and RBI's general permissions under FERA were to hold good for fi ve years and were to be renewed after that period. RBI's general permission under FERA could enable the registered FII to buy, sell and realise capital gains on investments made through initial corpus remitted to India, to invest on all recognised stock exchanges through a designated bank branch, and to appoint domestic custodians for custody of investments held. The Government guidelines of 1992 also provided for eligibility conditions for registration, such as track record, professional competence, financial soundness and other relevant criteria, including registration with a regulatory organisation in the home country. The guidelines were suitably incorporated under the SEBI (FIIs) Regulations, 1995. These regulations continue to maintain the link with the government guidelines by inserting a clause to indicate that the investment by FIIs should also be subject to Government guidelines. This linkage has allowed the Government to indicate various investment limits including in specific sectors. With coming into force of the Foreign Exchange Management Act, (FEMA), 1999 in 2000, the Foreign Exchange Management (Transfer or issue of Security by a Person Resident Outside India) Regulations, 2000 were issued to provide the foreign exchange control context where foreign exchange related transactions of FIIs were permitted by RBI. A philosophy of preference for institutional funds, and prohibition on portfolio investments by foreign natural persons has been followed, except in the case of Non-resident Indians, where direct participation by individuals takes place. Right from 1992, FIIs have been allowed to invest in all securities traded on the primary and secondary markets, including shares, debentures and warrants issued by companies which were listed or were to be listed on the Stock Exchanges in India and in schemes floated by domestic mutual funds.

Historical evolution of FII Policy is summarized below:

| Date | Policy change |
|---|---|
| **September 1992** | FIIs allowed to invest by the Government Guidelines in all securities in both primary and secondary markets and schemes floated by mutual funds. Single FIIs to invest 5 per cent and all FIIs allowed to invest 24 per cent of a company's issued capital. Broad based funds to have 50 investors with no one holding more than 5 per cent.<br>The objective was to have reputed foreign investors, such as, pension funds, mutual fund or investment trusts and other broad based institutional investors in the capital market. |
| **November 1996** | 100 per cent debt FIIs were permitted to give operational flexibility to FIIs. |
| **April 1997** | Aggregated limit for all FIIs increased to 30 per cent subject to special procedure and resolution. The objective was to increase the participation by FIIs. |
| **April 1998** | FIIs permitted to invest in dated Government securities subject to a ceiling. Consistent with the Government policy to limit the short-term debt, a ceiling of USD 1 billion was assigned which was increased to USD 1.75 billion in 2004. |
| **June 1998** | Aggregate portfolio investment limit of FIIs and NRIs/PIOs/OCBs enhanced from 5 per cent to 10 per cent and the ceilings made mutually exclusive. Common ceilings would have negated the permission to FIIs. Therefore, separate ceilings were prescribed. |
| **June 1998** | Forward cover allowed in equity.<br>FIIs permitted to invest in equity derivatives. The objective was to make hedging instruments available. |

2 An OCB is a company, partnership firm, society and other corporate body owned directly or indirectly to the extent of at least sixty percent by NRIs and includes overseas trust in which not less that sixty percent beneficial interest is held by NRIs directly or indirectly but irrevocably.

| | |
|---|---|
| **February 2000** | Foreign firms and high net-worth individuals permitted to invest as sub-accounts of FIIs. Domestic portfolio manager allowed to be registered as FIIs to manage the funds of sub-accounts. The objective was to allow operational flexibility and also give access to domestic asset management capability. |
| **March 2001** | FII ceiling under special procedure enhanced to 49 per cent. The objective was to increase FII participation. |
| **September 2001** | FII ceiling under special procedure raised to sectoral cap. |
| **December 2003** | FII dual approval process of SEBI and RBI changed to single approval process of SEBI. The objective was to streamline the registration process and reduce the time taken for registration. |
| **November 2004** | Outstanding corporate debt limit of USD 0.5 billion prescribed. The objective was to limit short term debt flows. |
| **April 2006** | Outstanding corporate debt limit increased to USD 1.5 billion prescribed.<br>The limit on investment in Government securities was enhanced to USD 2 bn. This was an announcement in the Budget of 2006-07. |
| **November, 2006** | FII investment upto 23% permitted in infrastructure companies in the securities markets, viz. stock exchanges, depositories and clearing corporations. This is a decision taken by Government following the mandating of demutualization and corporatization of stock exchanges. |
| **January and October, 2007** | FIIs allowed to invest USD 3.2 billion in Government Securities (limits were raised from USD 2 billion in two phases of USD 0.6 billion each in January and October). |
| **June, 2008** | While reviewing the External Commercial Borrowing policy, the Government increased the cumulative debt investment limits from US $3.2 billion to US $5 billion and US $1.5 billion to US $3 billion for FII investments in Government Securities and Corporate Debt, respectively. |
| **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 restriction of 70:30 ratio of investment in equity and debt respectively. |
| **October 2008** | Removal of Restrictions on Overseas Derivatives Instruments (ODIs) |
| **March 2009** | E-bids platform for FIIs to bid for allotments under over all FII debt limits. |
| **August 2009** | FIIs allowed to participate in interest rate futures |

As is evident from the above, the evolution of FII policy in India has displayed a steady and cautious approach to liberalisation of a system of quantitative restrictions (QRs). The policy liberalisation has taken the form of (i) relaxation of investment limits for FIIs; (ii) relaxation of eligibility conditions; and (iii) liberalisation of investment instruments accessible for FIIs.

## Policy Developments for Foreign Investments

### 1) FII investments in Debt Securities

During the review of External Commercial Borrowing policy during the year 2008-09, the government increased the cumulative debt investment limits from US $3.2 billion to US $5 billion and US $1.5 billion to US $3 billion for FII investments in Government Securities and Corporate Debt, respectively subject to a ceiling of US $200 million per registered entity.

On October 16, 2008 the government of India reviewed the External Commercial Borrowing policy for the second time and increased the cumulative debt investment limit from US $3 billion to US $6 billion for FII investments in Corporate Debt.

| Month | Cumulative Debt Investment Limits | Government Securities | Corporate Debt |
|---|---|---|---|
| June 2008 | From 3.2 bn to US$5 BN | US $ 1.5 bn | US $ 3 Bn |
| October 2008 | – | – | US $ 6 Bn<br>(US $ 300 per entity) |
| March 2009 | – | – | US $ 15 Bn<br>(US $ 249 per entity) |

### 2) Efficient Allocation of Debt-Equity in the Portfolio of FIIs

To accord flexibility to the FIIs to allocate the investments across equity and debt, it was decided to remove the conditions provided in regulation 15(2) of SEBI FII regulations pertaining to restrictions of 70:30 ratio of investment in equity and debt respectively from October 2008 onwards.

### 3) Time period for utilization of the debt limits

In July 2008, some changes pertaining to the methodology for the allocation of debt limit had been specified. In continuation of the same it was decided to grant a period of upto five business days for replacement of the disposed off/ matured debt instrument/ position. Amongst other things it was stated therein that the limit should be utilised within 15 days from the date of the allocation.

### 4) Removal of Restriction on ODIs

The quantitative restrictions imposed on the ODI issuance capabilities and restrictions on ODI were removed from October 7, 2008.

### 5) Disapproval of Lending / Borrowing Activity abroad by FIIs

Stock exchanges in India offer stock lending mechanism though it was not being used by the institutions including FIIs. The FIIs were however engaged in similar activities in the overseas OTC market. Therefore, SEBI issued a disapproval note on the activity of FIIs which had the effect of lending of shares abroad in an OTC market, an activity which was not allowed onshore.

### 6) Allocation methodology of debt investment limits to FIIs

The Government of India has reviewed the External Commercial Borrowing policy and has increased the cumulative debt investment limit by USD 9 billion (from USD 6 billion to USD 15 billion) which would be allocated to the market participants in an open bidding platform. The bidding platform would be provided by the stock exchanges. The bidding session would be held for two hours and the existing trading members would have access to the bidding platform. FIIs/ subaccounts would provide the mandate to these trading members, who in turn would bid for the limits. The bidding system would have the following features:

- The minimum amount which can be bid for is Rs 250 cr.
- The minimum tick size would be Rs 100 cr.
- Bid price would be expressed in basis point.
- A minimum flat fee of Rs.1,000 per successful bid would be levied for the allocated amount. Thus, the amount

payable by the successful bid would be minimum flat fee of Rs 1000 or bid price which ever is higher.

- Successful bids would be based on price and within that time priority.
- No single entity would be allocated more that Rs 10,000 crore of the investment limit.
- Time period for utilization of the limits allocated in this manner would be 45 days.
- Allocation of limits upto Rs 249 crore would take place in the manner as specified in the circular dated January 31, 2008 i.e. on a first come first serve basis for which requests would be called for at a later date.
- Time period for utilization of the allocated debt limit in the first come first served would be 11 working days from the date of the allocation.
- The limits would be translated into rupee terms at the RBI reference rate as on the date the bidding takes place.
- The initial bidding platform would be offered by the National Stock Exchange of India Ltd. (NSEIL). The next round of bidding shall be done on Bombay Stock Exchange Limited (BSE) and thereon by turns. The other modalities of the bidding platform shall be announced by the Exchanges.

### 7) FII participation in Interest Rate Futures

FIIs have been allowed to participate in Interest Rate Futures which were introduced for trading at NSE on August 31, 2009.

### 8) Foreign Venture Capital Investors (FVCIs) - Firm commitment required for registration

The Securities Exchange Board of India (SEBI) in July 2009 issued a circular requiring all applicants proposing to seek registration with SEBI as FVCIs to obtain firm commitments from their investors for contribution of a minimum amount of US$ 1 million, prior to filing an application with SEBI. SEBI has brought about this change in regulation, to bring parity of treatment between local funds that register with it as Domestic Venture Capital Funds and foreign investors that register with it as FVCIs.

### 9) Rationalisation of SEBI Fees for FIIs and FVCIs

SEBI has reduced its fees to be charged to FVIs and FIIs. This was effective from July 2009 onwards.

| Intermediaries | Earlier Fees | Revised Fees |
|---|---|---|
| **FVCI**<br>Application Fees<br>Registration fees (one time) | <br>US $ 5,000<br>US $ 20,000 | <br>US $ 2,500<br>US $ 10,000 |
| **FII**<br>Registration Fees for every block of 3 years | <br>US $ 10,000 | <br>US $ 5,000 |
| **Sub-accounts**<br>Registration Fees for every block of 3 years | <br>US $ 2,000 | <br>US $ 1,000 |

## Market Design - FIIs

| | |
|---|---|
| **Entities eligible to invest under FII route:** | **As FII**:<br>i an institution established or incorporated outside India as a pension fund, mutual fund, investment trust, insurance company or reinsurance company;<br>ii an International or Multilateral Organization or an agency thereof or a Foreign Governmental Agency, Sovereign Wealth Fund or a Foreign Central Bank; |

| | |
|---|---|
| | iii an asset management company, investment manager or advisor, bank or institutional portfolio manager, established or incorporated outside India and proposing to make investments in India on behalf of broad based funds and its proprietary funds, if any;<br>iv a Trustee of a trust established outside India, and proposing to make investments in India on behalf of broad based funds and its proprietary funds, if any<br>v university fund, endowments, foundations or charitable trusts or charitable societies. Broad based fund means a fund, established or incorporated outside India, which has at least 20 investors, with no single individual investor holding more than 49% 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 twenty investors. Further, if the broad based fund has an institutional investor who holds more than forty nine percent of the shares or units in the fund, then the institutional investor must itself by a broad based fund.<br>Sub-account means any person 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.<br>The applicant for sub-account can fall into any of the following categories, namely;<br>(i) broad based fund or portfolio which is broad based, incorporated or established outside India.<br>(ii) Proprietary fund of a registered foreign institutional investor<br>(iii) Foreign corporate (which has its securities listed on a stock exchange outside India, having asset base of not less than two billion US dollars and having an average net profit of not less than fifty million US dollars |
| **Investment Restrictions** | An FII can invest only in the following:-<br>i securities in the primary and secondary markets including shares, debentures and warrants of companies ,unlisted, listed or to be listed on a recognised stock exchange in India;<br>ii units of schemes floated by domestic mutual funds including Unit Trust of India, whether listed or not listed on a recognised stock exchange; units of scheme floated by a Collective Investment Scheme.<br>iii dated Government securities<br>iv derivatives traded on a recognised stock exchange;<br>v commercial paper;<br>vi security receipts.<br>vii Indian Depository Receipts<br>In case foreign institutional investor or sub-account holds equity shares in a company whose shares are not listed on any recognized stock exchange, and continues to hold the shares after initial public offering and listing, then such shares would be subject to lock-in for the same period, if any is applicable to shares held by a foreign direct investor placed in similar position, under the policy of the Central Government relating to foreign direct investment for the time being in force.<br>The total investments in equity and equity related instruments (including fully convertible debentures, convertible portion of partially convertible debentures and tradable warrants) made by a FII in India, whether on his own account or on account of his sub- accounts, should not be less than seventy per cent of the aggregate of all the investments of the Foreign Institutional Investor in India, made on his own account and on account of his sub-accounts. |

| | |
|---|---|
| | However, this is not applicable to any investment of the foreign institutional investor either on its own account or on behalf of its sub-accounts in debt securities which are unlisted or listed or to be listed on any stock exchange if the prior approval of the SEBI has been obtained for such investments. Further, SEBI while granting approval for the investments may impose conditions as are necessary with respect to the maximum amount which can be invested in the debt securities by the foreign institutional investor on its own account or through its sub-accounts. A foreign corporate or individual is not eligible to invest through the hundred percent debt route.<br><br>Investments made by FIIs in security receipts issued by securitization companies or asset reconstruction companies under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 are not eligible for the investment limits mentioned above. No foreign institutional can invest in security receipts on behalf of its sub-account.<br><br>**FII Investment in secondary markets:**<br><br>SEBI regulations provide that a foreign institutional investor or sub-account can transact in the Indian securities market only on the basis of taking and giving delivery of securities purchased or sold. However, this does not apply to any transactions in derivatives on a recognised stock exchange.<br><br>Further, SEBI has, in December, 2007 permitted FIIs and sub-accounts to enter into short selling transactions only in accordance with the framework specified by SEBI in this regard.<br><br>No transaction on the stock exchange would be carried forward and the transaction in securities would be only through stock broker who has been granted a certificate by SEBI.<br><br>They have also been allowed to lend or borrow securities in accordance with the framework specified by SEBI in this regard.<br><br>A Foreign institutional investor can issue, or otherwise deal in offshore derivative instruments, directly of indirectly wherein the offshore derivative instruments are issued only to persons who are regulated by an appropriate foreign regulatory authority and the ODIs are issued after compliance with 'know your client' norms. |
| **General Obligations And Responsibilities** | Certain general obligations and responsibilities relating to appointment of domestic custodians, designated bank, investment advice in publicly accessible media etc. have been laid down on the FIIs operating in the country in the SEBI, FII Regulations 1995. |
| **Private Placement with FIIs** | SEBI registered FIIs have been permitted to purchase shares/convertible debentures of an Indian company through offer/private placement subject to the ceiling of 10% of the paid up capital of the Indian company for individual FII/sub account and 24% for all FIIs/sub accounts put together. Indian company is permitted to issue such shares provided that:<br><br>i in the case of public offer, the price of shares to be issued is not less than the price at which shares are issued to residents and<br><br>ii in the case of issue by private placement, the price is not less than the price arrived at in terms of SEBI guidelines issued by the erstwhile Controller of Capital issues as applicable. Purchases can also be made of Partially Convertible debentures, Fully Convertible debentures, Rights/Renunciations/Warrants/Units of Domestic Mutual Fund Schemes. |

| | |
|---|---|
| **Risk Management**<br><br>**Forward Cover & Cancellation and Rebooking** | Authorized Dealer Banks can offer forward cover to FIIs to the extent of total inward remittance of liquidated investment. Rebooking of cancelled forward contracts is allowed up to a limit of 2 % of the market value of the entire investment of FIIs in equity and/or debt in India. The limit for calculating the eligibility for rebooking will be based upon market value of the portfolio as at the beginning of the financial year (April-March). The outstanding contracts have to be duly supported by underlying exposure at all times. The AD Category –I bank has to ensure that (i) that total forward contracts outstanding doesn't exceed the market value of portfolio and (ii) forward contracts permitted to be rebooked doesn't exceed 2 % of the market value as determined at the beginning of the financial year. The monitoring of forward cover is to be done on a fortnightly basis. |
| **FII Position Limits In Derivatives Contracts** | SEBI registered FIIs are allowed to trade in all exchange traded derivative contracts on the stock exchanges in India subject to the position limits as prescribed by SEBI from time to time. These have been listed out in Chapter 7.<br><br>Monitoring of Position Limits for FII<br><br>Clearing Corporation monitors the open positions of the FII/ sub-account of the FII for each underlying security and index, against the position limits specified at the level of FII/ sub accounts of FII respectively, at the end of each trading day. |
| **Monitoring of investment position by RBI** | The Reserve Bank of India (RBI) monitors the investment position of FIIs in listed Indian Companies, reported by Custodian Banks on a daily basis in Form LEC(FII).<br><br>**Caution List**<br><br>When the total holdings of FIIs/NRIs under the Scheme reach the trigger limit, which is 2 % below the applicable limit, Reserve Bank issues a notice to all the designated branches of an Authorised Dealer banks stating that any further purchases of shares of the particular Indian company will require prior approval of Reserve Bank. RBI gives case-by case approvals to FIIs for purchase of shares of companies included in the Caution List. This is done on first-come-first served basis.<br><br>**Ban List**<br><br>Once the shareholding by FIIs/NRIs reaches the overall ceiling/sectoral cap/statutory limit, Reserve Bank puts 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** | SEBI registered FIIs/sub-accounts are allowed to keep with the trading member/clearing member amount sufficient to cover the margins prescribed by the exchange/Clearing House and such amounts as may be considered to meet the immediate needs. |
| **Reporting of FII Investments** | An FII may invest in a particular share issue of an Indian Company either under 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

RBI has given general permission to SEBI registered FIIs/sub-accounts to invest under the Portfolio Investment Scheme (PIS).

- Total holding of each FII/sub account under this scheme should not exceed 10% of the total paid up capital or 10 % of the paid up value of each series of convertible debentures issued by the Indian company.

- Total holding of all the FIIs/sub-accounts put together should not exceed 24 % of the paid up capital or paid up value of each series of convertible debentures. This limit of 24 % can be increased to the sectoral cap / statutory limit as applicable to the Indian Company concerned, by passing a resolution of its Board of Directors followed by a special resolution to that effect by its General Body.
- A domestic asset management company or portfolio manager, who is registered with SEBI as an FII for managing the fund of a sub-account can make investments under the Scheme on behalf of:
  i. A person resident outside India who is a citizen of a foreign state or
  ii. A body corporate registered outside India.
- However, such investment should be made out of funds raised or collected or brought from outside through normal banking channel. Investments by such entities should not exceed 5 % of the total paid up equity capital or 5 % of the paid up value of each series of convertible debentures issued by an Indian company, and should also not exceed the overall ceiling specified for FIIs.

## Market Outcome

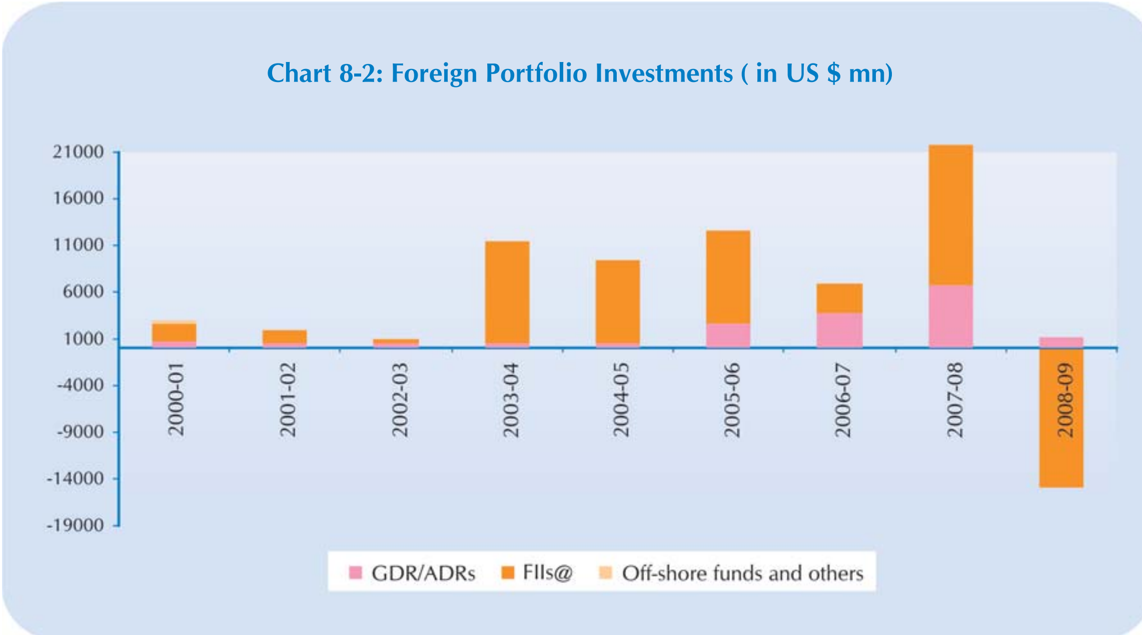
Foreign Portfolio investments in India come in the form of investments in American Depository Receipts (ADRs)/ Global Depository Receipts (GDRs), foreign institutional investments and investments in Offshore funds. However, foreign institutional investments constitute a major proportion of such portfolio flows **(Table 8-1)**. The share of FIIs in total portfolio flows was as high as 95.97% in 2003-04 and 93.25% in 2004-05. It declined to 46.05% in 2006-07. This decline in FII investment in 2006-07 can be attributed to global developments like meltdown in global commodities markets and equity market during the three month period between May 2006 to July 2006, fall in Asian Equity markets, tightening of capital controls in Thailand and its spill over effects. (Chart 8-2)

**Table 8-1: Composition of Foreign Portfolio Investment in India**

( US $ mn )

| Year | GDR/ADRs | FIIs@ | Off-shore funds and others | Total Foreign Portfolio Investments |
|---|---|---|---|---|
| 2000-01 | 831 | 1,847 | 82 | 2,760 |
| 2001-02 | 477 | 1,505 | 39 | 2,021 |
| 2002-03 | 600 | 377 | 2 | 979 |
| 2003-04 | 459 | 10,918 | - | 11,377 |
| 2004-05 | 613 | 8,686 | 16 | 9,315 |
| 2005-06 | 2,552 | 9,926 | 14 | 12,492 |
| 2006-07 | 3,776 | 3,225 | 2 | 7,003 |
| 2007-08P | 6,645 | 20,328 | 298 | 27,271 |
| 2008-09P | 1,162 | -15,017 | - | -13,855 |

*Source:RBI*
*P:Provisional*
*-:Nil/Negligible*
*@ Data represents net inflow/outflow of funds by FIIs*
*Data on foreign investment presented in this table represent inflows/outflows and may not tally with the data presented in other tables.*




The share of FII investment in total portfolio investment for 2007-08 is provisionally estimated to be 74.54%. The large FII inflows (net) in 2007-08 at US $ 20 billion as against US $ 6.7 billion in 2006-07 was due to increased participation of FIIs in the primary market as corporates raised large resources through 85 initial public offerings (IPOs) and 7 follow-on public offers (FPOs) aggregating to Rs 545,110 million. (US $ 13,638 million) (Table 8-1).

In 2008-09, FII net outflows were at US$ 15 billion which was the highest outflows ever since the FII were allowed to participate in the Indian capital markets. The change in the trend from inflows by FIIs was converted into outflows after 1998-99 when the outflows were US $ 390 million. However, this time the FIIs surpassed the outflows witnessed in the year 1998-99. (Table 8-1).

Looking at monthly trend in FII investments during 2008-09 (**Table 8-2**), it can be seen that net FII investments have been negative in eight months of the fiscal.

During 2008-09, FIIs have been net sellers to the tune of US $ 11,456 million. This can be attributed to the weak sentiments of investors, following the global credit crisis which engulfed the developed countries and is seen to be affecting the developing countries as well.

**Table 8-2: Trends in FII Investment**

| Period | Purchases (Rs. mn.) | Sales (Rs. mn.) | Net Investment (Rs. mn.) | Net Investment (US $ mn.) | Cumulative Net Investment (US $ mn.) |
|---|---|---|---|---|---|
| **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 | 477,063 |
| **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** |

*Contd.*

*Contd.*

| Period | Purchases (Rs. mn.) | Sales (Rs. mn.) | Net Investment (Rs. mn.) | Net Investment (US $ mn.) | Cumulative Net Investment (US $ mn.) |
|---|---|---|---|---|---|
| **2008-09** | **6,145,810** | **6,603,920** | **-458,110** | **-11,456** | **56,650** |
| Apr-08 | 623,290 | 629,560 | -6,270 | -155 | 67,850 |
| May-08 | 589,660 | 641,410 | -51,750 | -1,283 | 66,567 |
| Jun-08 | 631,540 | 742,480 | -110,940 | -2,751 | 63,817 |
| Jul-08 | 696,460 | 678,640 | 17,820 | 442 | 64,259 |
| Aug-08 | 501,400 | 500,940 | 460 | 12 | 64,270 |
| Sep-08 | 735,150 | 785,900 | -50,750 | -1,258 | 63,012 |
| Oct-08 | 522,870 | 694,920 | -172,050 | -4,265 | 58,747 |
| Nov-08 | 394,890 | 378,710 | 16,180 | 401 | 59,148 |
| Dec-08 | 403,110 | 379,340 | 23,770 | 589 | 59,737 |
| Jan-09 | 357,780 | 392,210 | 34,430 | -853 | 58,884 |
| Feb-09 | 279,870 | 311,120 | 31,250 | -775 | 58,110 |
| Mar-09 | 409,790 | 468,690 | 58,900 | -1,460 | 56,650 |
| **April 2009-June 2009** | **2,070,540** | **1,757,510** | **313,030** | **6,427** | **65,508** |
| Apr-09 | 497,150 | 407,160 | 89,990 | 1,791 | 60,872 |
| May-09 | 812,660 | 638,610 | 174,050 | 3,577 | 64,449 |
| Jun-09 | 760,730 | 711,740 | 48,990 | 1,059 | 65,508 |

*Source: SEBI.*
( ) indicates negative values
Note:This data pertains to investment route in stock exchanges, primary market and other.

### Number of Foreign Institutional Investors (FIIs)

As of March 2009, there were 1,626 FIIs registered with SEBI (Table 8-3 and Chart 8-3)

**Table 8-3: SEBI Registered FIIs in India**

| Year | FII at end of March | Net Additons in FIIs during the year |
|---|---|---|
| 1992-93 | 0 | 0 |
| 1993-94 | 3 | 3 |
| 1994-95 | 156 | 153 |
| 1995-96 | 353 | 197 |
| 1996-97 | 439 | 86 |
| 1997-98 | 496 | 57 |
| 1998-99 | 450 | -46 |
| 1999-00 | 506 | 56 |
| 2000-01 | 527 | 21 |
| 2001-02 | 490 | -37 |
| 2002-03 | 502 | 12 |
| 2003-04 | 540 | 38 |
| 2004-05 | 685 | 145 |
| 2005-06 | 882 | 197 |
| 2006-07 | 997 | 115 |
| 2007-08 | 1,319 | 322 |
| 2008-09 | 1,626 | 307 |

*Source:SEBI*

Chart 8-3: Number of FIIs and Net Investments ( in US $ mn)


## Foreign Institutional Investments- Equity and Debt

FIIs were allowed to invest in the Indian capital market securities from September 1992, however investment by them were first made in January 1993. The Indian gilts market was opened up for FII investment in April 1998. Till December 1998, investment were related to equity only as investments in debt were mode from January 1999. Foreign Institutional Investors (FIIs) continued to invest large funds in the Indian securities market. For two consecutive years in 2004-05 and 2005-06, net investment in equity showed year-on-year increase of 10% to 11%.

Highest net investment in equity by FIIs was seen in 2007-08 of Rs. 534,038 million (US $ 13,361 million) an increase of 112% over the 2006-07 net investment figure of Rs 252,370 million (US $ 5,790 million).

During 2008-09, highest net outflows in equity (since 2001-02) was Rs.477,070 million (US $ 9,363 million) and inflow of Rs.18,950 million (US $372 million) in debt instruments. **(Table 8-4).**

Table 8-4: Net Investments by Foreign Institutional Investors in Equity and Debt

( Rs. million)

| Year | FIIs | |
|---|---|---|
| | Net Investment in Equity | Net Investment in Debt |
| **2001-02** | **80,670** | **6,850** |
| **2002-03** | **25,280** | **600** |
| **2003-04** | **399,590** | **58,050** |
| **2004-05** | **441,230** | **17,590** |
| **2005-06** | **488,010** | **-73,340** |
| **2006-07** | **252,370** | **56,070** |
| **2007-08** | **534,038** | **127,753** |
| Apr-07 | 66,792 | 10,423 |
| May-07 | 39,597 | 13,601 |
| Jun-07 | 16,431 | -5,414 |
| Jul-07 | 238,724 | -12,630 |
| Aug-07 | -77,705 | 6,084 |

*Contd.*

*Contd.*

( Rs. million)

| Year | FIIs | |
|---|---|---|
| | Net Investment in Equity | Net Investment in Debt |
| Sep-07 | 161,326 | 26,558 |
| Oct-07 | 205,909 | 24,995 |
| Nov-07 | -58,499 | -4,693 |
| Dec-07 | 55,791 | 33,120 |
| Jan-08 | -130,357 | 19,538 |
| Feb-08 | 17,333 | 24,968 |
| Mar-08 | -1,304 | -8,797 |
| **2008-09** | **-477,070** | **18,950** |
| Apr-08 | 10,750 | -17,020 |
| May-08 | -50,120 | -1,630 |
| Jun-08 | -100,960 | -9,990 |
| Jul-08 | -18,370 | 36,190 |
| Aug-08 | -12,120 | 12,580 |
| Sep-08 | -82,780 | 32,040 |
| Oct-08 | -153,470 | -18,580 |
| Nov-08 | -25,980 | 42,150 |
| Dec-08 | 17,500 | 6,270 |
| Jan-09 | -42,450 | 8,020 |
| Feb-09 | -24,370 | -6,880 |
| Mar-09 | 5,300 | -64,200 |

## Foreign Institutional Investments in Equity and Derivatives

### Equity Market Segment

The FII turnover in equity market segment on the Indian stock exchanges (NSE+BSE) accounted for Rs.11,526,252 million (US $ 226,226 million) i.e. 14.96 % of the total turnover on BSE and NSE of Rs. 77,037,880 million (US $ 892,538 million) during 2008-09 as compared with the turnover of Rs.17,035,445 million (US $ 426,206) in 2007-08 (**Table 8-5 and Chart 8-4).**

**Table 8-5: FII Turnover in Equity Market Segment of NSE and BSE**

| Year | Buy Value (Rs. million) | Sell Value (Rs. million) | Gross Turnover of FIIs (Rs. million) | Total Turnover on Exchanges (Rs. million) | %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 | 6,129,275 | 11,526,252 | 77,037,880 | 14.96 |
| April-June 2009 | 1,736,560 | 1,542,949 | 3,279,509 | 30,168,860 | 10.87 |

**Note**

*Turnover is computed as buy value+sell value on segments of NSE and BSE sourced from SEBI*

*The turnover is calculated using the provisional FII figures and is for the trades executed in the secondary markets and is subject to changes, inter alia, on account of custodial confirmation process, modifications etc.*

*The idea is to give the percentage share of FIIs in the Indian markets*

*NSE data has been compiled on the basis of trading codes entered by the trading members at the time of order entry and corresponding client category classification provided by the trading members as part of unique client code details upload.*

*BSE data has been compiled on the basis of marking of 'client type' while executing orders on BOLT-TWs in equity segment.*

## Derivatives Market Segment

The FII gross turnover in the F&O Segment of NSE during 2008-09 was Rs.19,845,575 million (US $ 389,511 million) which was 9.01% of the total derivatives market turnover of Rs. 220,209,640 (US $ 2,161,037 million) (**Table 8-6 and Chart 8-4).**

**Table 8-6: FII Turnover in F&O Market Segment of NSE**

| | Buy Value (Rs. million) | | Sell Value (Rs. million) | | Gross No. of contracts traded | Gross Turnover of FIIs | Total Turnover on NSE (Rs. million) | %age of FII turnover to Total Turnover on Exchanges |
|---|---|---|---|---|---|---|---|---|
| | No. of contracts | Amount (Rs.mn) | No. of contracts | Amount (Rs.mn) | No. of contracts | Amount (Rs.mn) | Amount (Rs.mn) | |
| **2006-07** | 20,215,981 | 6,484,665 | 19,659,868 | 6,360,392 | 39,875,849 | 12,845,058 | 147,125,420 | 8.73 |
| **2007-08** | 47,880,785 | 12,633,510 | 46,078,979 | 12,401,616 | 93,959,764 | 25,035,126 | 261,809,560 | 9.56 |
| **2008-09** | 58,338,152 | 10,165,351 | 55,464,681 | 9,680,224 | 113,802,833 | 19,845,575 | 220,209,640 | 9.01 |
| **April -June 2009** | 15,232,138 | 3,562,077 | 15,231,627 | 3,612,879 | 30,463,765 | 7,174,956 | 78,051,900 | 9.19 |

***Note***
*Here the data for FII turnover is only the data of NSE which is reported to SEBI*
*Here data for total turnover on Exchange refers to NSE*

**Chart 8-4: Percentage of FII Turnover in Equity and Derivative segments of Stock Exchanges**


Note : Here, derivatives segment pertains to NSE.

## Offshore Derivative Instruments (ODIs):Participatory Notes

Offshore Derivative Instruments mean any instrument by whatever name called[3] which is issued overseas by a foreign institutional investor against securities held by it that are listed or proposed to be listed on any recognised stock exchange in India, as its underlying. No foreign institutional investor can issue or deal in ODIs directly or indirectly unless the following conditions are satisfied:

3 Participatory Notes, Equity-linked notes, capped return notes, participating note, investment note etc.

a) such offshore derivative instruments are issued only to persons who are regulated by an appropriate foreign regulatory authority.

b) such offshore derivative instruments are issued after compliance with 'know your client' norms.

A FII is required to ensure that no further issue or transfer is made of any offshore derivative instruments issued by or on behalf of it to any person other than a person regulated by an appropriate foreign regulatory authority. No sub accounts are directly or indirectly allowed to issue offshore derivative instruments.

As of March 2009, the total value of P-Notes with underlying Indian securities as a percentage of Assets Under Management of FIIs decreased to 17.72% from 34.05% in March 2008. **Table 8-7** shows the total value of participatory notes versus assets under management of FIIs from March 2004 onwards.

**Table 8-7: Total Value of Participatory Notes (PNs) Vs Assets Under Management of FIIs**

(in Rs. million)

| Month | *Total Value of PNotes with Underlying Indian securities | #Assets Under Management of FIIs | A as % of B |
|---|---|---|---|
| | A | B | C |
| **Mar-04** | **3,187,500** | **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** |
| Apr-08 | 2,587,480 | 8,148,650 | 31.75 |
| May-08 | 2,349,330 | 7,685,940 | 30.57 |
| Jun-08 | 1,812,380 | 6,122,680 | 29.60 |
| Jul-08 | 1,760,040 | 6,476,580 | 27.18 |
| Aug-08 | 1,679,620 | 6,601,440 | 25.44 |
| Sep-08 | 1,249,810 | 5,736,410 | 21.79 |
| Oct-08 | 822,820 | 4,151,090 | 19.82 |
| Nov-08 | 709,800 | 3,863,650 | 18.37 |
| Dec-08 | 713,200 | 4,174,760 | 17.08 |
| Jan-09 | 658,120 | 3,921,660 | 16.78 |
| Feb-09 | 609,480 | 3,691,550 | 16.51 |
| **Mar-09** | **694,450** | **3,919,540** | **17.72** |
| Apr-09 | 723,140 | 4,690,930 | 15.42 |
| May-09 | 1,034,700 | 6,244,880 | 16.57 |
| **Jun-09** | **978,850** | **6,310,470** | **15.51** |

***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 various sectors of NSE listed companies is presented in (**Table 8-8**). At the end of March 2009 FIIs held the highest stake of 14.27 % in the banking sector followed by finance and FMCG sector of 13.01% and 12.72% respectively. The total percentage of shares held by FIIs across different sectors was 8.40 % of the total shares of the companies listed on NSE as at end March 2009.

**Table 8-8: FII Share in different sectors of companies listed on NSE**

| | End of March 2007 | End of March 2008 | End of March 2009 | End of June 2009 |
|---|---|---|---|---|
| **Sectors** | **Percentage share of foreign institutional investors holdings** | | | |
| Banks | 18.41 | 19.15 | 14.27 | 15.05 |
| Engineering | 11.45 | 10.63 | 7.34 | 8.88 |
| Finance | 18.18 | 17.44 | 13.01 | 15.04 |
| FMCG | 11.91 | 14.07 | 12.72 | 12.87 |
| Information Technology | 14.53 | 16.00 | 12.44 | 11.46 |
| Infrastructure | 7.15 | 8.86 | 7.31 | 9.02 |
| Manufacturing | 9.57 | 9.46 | 7.28 | 7.79 |
| Media & Entertainment | 15.20 | 11.71 | 11.42 | 9.17 |
| Petrochemicals | 5.83 | 4.73 | 4.77 | 4.50 |
| Pharmaceuticals | 11.17 | 10.69 | 7.88 | 7.66 |
| Services | 13.09 | 10.70 | 8.39 | 8.07 |
| Telecommunication | 11.17 | 9.12 | 6.85 | 7.05 |
| Miscellaneous | 8.19 | 9.30 | 8.39 | 7.94 |
| **Total stake of FIIs in all the Sectors** | **10.78** | **10.62** | **8.40** | **8.89** |

*Source : NSE*

### FII Stock Market Indicators

The FIIs interest in the Indian Stock Markets can be gauged from various indicators like market capitalisation of FIIs (as a percentage of GDP and as a percentage of total M-Cap of NSE) and value traded ratio. **(Table 8-9)**

**Table 8-9: FII Market Indicators**

(in percent)

| FII Market Indicators | 2006-07 | 2007-08 | 2008-09 |
|---|---|---|---|
| Value Traded Ratio<br>(Traded Value / GDP) | 11.08 | 18.03 | 10.83 |
| Market Capitalisation of FIIs holding (in NSE Listed Companies) to Total Market Capitalisation of NSE | 16.10 | 14.66 | 12.50 |
| Market Capitalisation Ratio of FIIs | 13.14 | 15.08 | 6.80 |

*Source : NSE, Central Statistical Organisation*
Value traded ratio of FIIs is computed using turnover of FIIs on NSE + BSE divided by GDP
Market Capitalisation ratio of FIIs is computed using Market Capitalisation of FIIs on NSE divided by GDP

## 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 Technology Development and Information Company of India Ltd. (TDICI) promoted by ICICI and UTI Bank. At the same time, Gujarat Venture Fund Limited & Andhra Pradesh Industrial Development Corporation in the early 90s were started by State level Financial Institutions. Thus, venture capital was initially the prerogative of development financial institutions. The mid 90's saw the rise of Foreign Venture Capital Funds which focused on development capital without any sectoral focus and was 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 upon private placements, public offerings and lending by financial institutions.

In **1973**, a committee on "Development of Small and Medium Enterprises" highlighted the need to foster venture capital as a source of funding 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 took a policy initiative and announced guidelines for venture capital funds (VCFs) in 1988. Thereafter, it issued guidelines in September 1995 for overseas venture capital investment in India. Further, as a part of its mandate to regulate and to develop the Indian securities markets, SEBI under Sec 12 of SEBI Act 1992 framed SEBI (Venture Capital Funds) Regulations, 1996.

Pursuant to the regulatory framework, some domestic VCFs were registered with 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 suggest suitable measures to facilitate the growth of VC activity in India. Also keeping in view the need for a global perspective, it was decided to associate Indian entrepreneurs from Silicon Valley in the committee headed by KB Chandrasekhar. Thereafter, based on recommendations of the **K.B. Chandrasekhar Committee**, 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 to provide a uniform, hassle free, single window regulatory framework. SEBI also notified regulations for foreign venture capital investors in the year 2000. On the pattern of foreign institutional investors (FIIs), 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 the year 2003. It helped SEBI in considering the amendments to the regulations that facilitated the further development of vibrant VC industry in India. Over time FVCI registration gained momentum as can be seen in **Table 8-10**.

**Table 8-10: SEBI Registered FVCIs in India**

| Year | FVCI at end of March | Net Additons in FVCIs during the year |
|---|---|---|
| 2000-01 | 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 |

*Source : SEBI*

## Market design for Foreign Venture Vapital Investor (FVCI)*

| | |
|---|---|
| **Foreign Venture Capital Investors** | Foreign Venture Capital Investor means an investor incorporated, established outside India is registered under SEBI Foreign Venture Capital Investors Regulations, 2000.<br>A SEBI registered Foreign Venture Capital Investor (FVCI) with specific approval from RBI under FEMA Regulations can invest in Indian Venture Capital Undertaking (IVCU) or Indian Venture Capital Fund (IVCF) or in a Scheme floated by such IVCFs subject to the condition that the VCF should also be registered with SEBI. |

* RBI master circular on foreign investments.

<table>
<tr><td>FVCI Investments</td><td>A registered FVCI may through the SEBI apply to the Reserve Bank for permission to invest in Indian Venture Capital undertaking (IVCU) or in a VCF or in a scheme floated by such VCFs. Permission may be granted by Reserve Bank subject to such terms and conditions as necessary. The registered FVCIs permitted by 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 Reserve Bank permits the FVCI to open a Foreign Currency Account and/or a Rupee Account with a designated branch of an AD Category – I bank. Following are the permissible transactions:<br>(i) Crediting inward remittance received through normal banking channels or the sale proceeds (net of taxes) of investments.<br>(ii) Making investment in accordance with the provisions stated by regulations<br>(iii) Transferring funds from the foreign currency account of the FVCI to their own rupee account<br>(iv) Remitting funds from the Foreign currency or rupee account subject to payment of applicable taxes.<br>(v) Meeting local expenses of the FVCI.</td></tr>
<tr><td>Investment Conditions and Restrictions</td><td>The Foreign Venture capital investor has to abide by the following conditions pertaining to investments made by it.<br>i. It has to disclose the investment strategy to the board.<br>ii. It can invest its total funds committed in one foreign venture capital investor.<br>iii. Foreign Venture Capital Undertaking (FVCU) should make investment as enumerated below:<br>i) At least 66.67 % of the investible funds should be invested in unlisted equity shares or equity linked instruments of venture capital undertakings.<br>ii) Not more than 33.33 % of the investible funds may be invested by way of<br>• subscription to Initial Public Offer (IPO) of a VCU whose shares are proposed to be listed.<br>• debt or debt instrument of a VCU in which the FVCI has already made an investment by way of equity.<br>• Preferential allotment of equity shares of a listed company subject to lock-in-period of one year. This condition should be achieved by FVCI by end of the life cycle.<br>• It should disclose the duration of the life cycle of the fund.<br>• Special Purpose Vehicles (SPVs) which are created by a venture capital fund for the purpose of facilitating or promoting investment in accordance with these Regulations.<br>The investment conditions and restrictions stipulated above should be achieved by the venture capital fund by the end of its life cycle.<br>The venture capital fund should disclose the duration of life cycle of the fund</td></tr>
<tr><td>General Obligations and Responsibilities</td><td>Certain general obligations and responsibilities relating to maintenance of books and records, power to call for information by SEBI, appointment of designated banks etc. have been laid down for FVCIs by SEBI Foreign Venture Capital Investors Regulations, 2000.</td></tr>
<tr><td>Risk Management</td><td>AD Category – I banks can offer forward cover to FVCIs to the extent of total inward remittance. In case the FVCI has made any remittance by liquidating some investments, original cost of the investments has to be deducted from the eligible cover to arrive at the actual cover that can be offered.</td></tr>
</table>

| | |
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| **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 SEBI Foreign Venture Capital Investors Regulations, 2000 and statutory provisions contained in 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. PE has now entered the economic mainstream and this segment has particularly gained momentum over the past few years. The concepts of VC and PE are very recent in India as compared to other countries like USA, UK, Europe, Israel etc where they have been in existence since many years.

## Market Design for Private Equity

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| **PRIVATE EQUITY PLAYERS** | **Private equity players** are established investment bankers and typically invest into proven/established businesses. 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. PE funds are generally seen to attract huge amount of capital from investors, including pension funds, insurance funds, university foundations and individuals. 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 Private equity (PE) investments from outside the country are either classified as Foreign Institutional Investment (FII) for investments in listed companies or 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 by a PE Firm. These are :<br>• **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 investment in public equity (PIPEs) are large transactions contracted between the PE Fund.<br>• **Ordinary secondary market transactions** where the PE fund buys shares on the secondary market. These are pure FII transactions.<br>However, these two cases are differentiated by capital control. |
| **Exit strategies of PEs** | There are various forms of exit from an investment by a private equity investor. These are:<br>• **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.<br>• **Post-purchase** listing of the company permitting sale of equity through the stock market.<br>• **Sale to** another private equity firm, referred to as a **secondary buyout**.<br>• **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 compliances 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 regulation therein. For tax exemption purpose, guidelines are issued by the Central Board of Direct Taxes (CBDT). Private investment in public equity (PIPE) deals are also governed by the SEBI Initial Capital Disclosure (ICD) Regulations, which deals with the regulations relating to QIBs and Preferential Placement.<br>***Foreign Direct Investments***<br>Most PE funds make direct investment 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 with the approval of Foreign Investment Promotion board (FIPB). Further, FDI is prohibited in few sectors like multi-brand retail trading, gambling and betting etc.<br>RBI follows definition of FDI given by IMF wherein PE investments more than 10% are treated as FDI.<br>***Foreign institutional investors***<br>Foreign institutional investors, including PE funds so registered, 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% of the capital and limit the aggregate investments of all FIIs and its sub-accounts to 24%, 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 scenario of PE/VC investments gained momentum in the late 1990s with the growth of Indian IT companies and with the simultaneous global dot-com boom. On the back of global IT boom, Indian IT sector was viewed as a prominent funding opportunity and consequently saw a lot of VC coming into the country.

In the year 2005, 124 deals worth US $ 2.03 billion were struck. This increased significantly by 287.19% to 302 deals of US $ 7.86 billion in 2006. Maximum number of PE deals were struck in the year 2007 with 405 deals worth US $ 19.03 billion. In the year 2008, the volume of PE deals witnessed a fall in value by 44.35% from US $ 19.03 billion to US $ 10.59 billion (Table 8-11 and Chart 8-5).

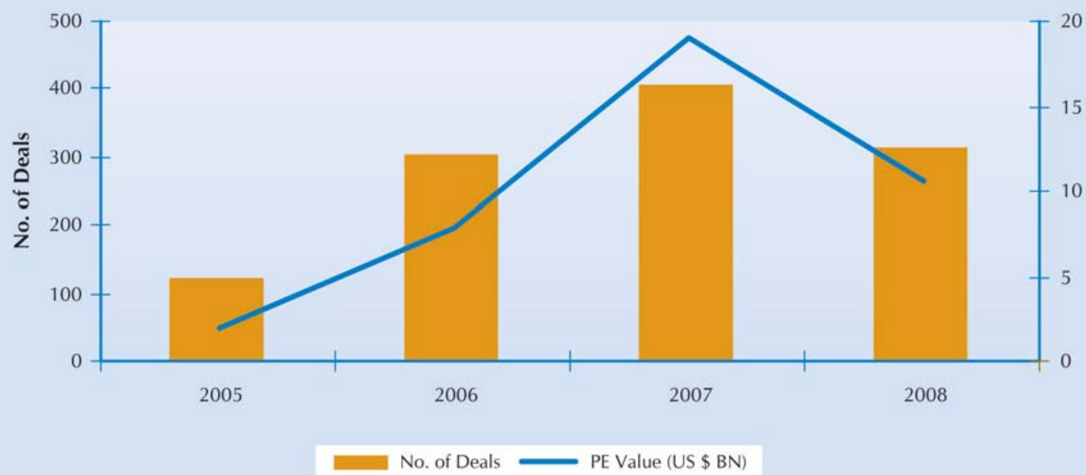
**Table 8-11: Private Equity Deals in India**

| Year | No. of Deals | Total PE Value (US $ bn) | Y-o-Y % |
|---|---|---|---|
| 2005 | 124 | 2.03 | -- |
| 2006 | 302 | 7.86 | 287.19 |
| 2007 | 405 | 19.03 | 14.11 |
| 2008 | 312 | 10.59 | -44.35 |

***Source: Grant Thornton, Deal Tracker 2009***

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 8-5: Private Equity Deals




According to the data published by Grant Thornton, most of the PE/VC investments were concentrated in the real estate and infrastructure sector, telecom, banking and financial services and IT sector. The trend can be seen in Table 8-12. The real estate sector witnessed investments worth US $ 3,312.61 million followed by PE investment of US $ 1,396.75 million in telecom and US $ 900.20 million in power.

**Table 8-12: All Sectors PE Trends**

| Sector | 2006 | | 2007 | | 2008 | |
|---|---|---|---|---|---|---|
| | No. of Deals | US $ mn | No. of Deals | US $ mn | No. of Deals | US $ mn |
| Real estate & Infrastructure Management | 31 | 1,318.68 | 61 | 6,764.26 | 52 | 3,312.61 |
| Telecom | 14 | 1,393.42 | 10 | 3,421.3 | 15 | 1,396.75 |
| Power and Energy | 7 | 113.07 | 15 | 681.51 | 16 | 900.2 |
| Banking & Financial Services | 26 | 657.33 | 60 | 3,230.71 | 32 | 818.77 |
| IT & ITeS | 55 | 1,608.56 | 67 | 744.17 | 55 | 488.48 |
| Manufacturing | 14 | 217.62 | 11 | 91.5 | 8 | 409.83 |
| Electricals & Electronics | - | - | 3 | 133.26 | 8 | 348.94 |
| Pharma, Healthcare & Biotech | 26 | 467.89 | 35 | 448.67 | 22 | 337.41 |
| Media, Entertainment and Publishing | 15 | 196.2 | 31 | 999.22 | 18 | 305.13 |
| Others | 114 | 1,886.45 | 112 | 2,516.49 | 86 | 2267.9 |
| **Grand Total** | 302 | 7,859.22 | 405 | 19,031.09 | 312 | 10,586.02 |

***Source:Grant Thornton, Dealtracker 2009***

### PE Fundraising / Investments in BRIC countries

According to the data reported by Emerging Markets Private Equity Association (EMPEA), 2008 among the BRIC economies - China and India have been most preferred destination for Private equity players. In the year 2008, the fundraising by private equity in China and India was US $ 14,461 million and US $ 7,710 million respectively. In China fundraising by PE witnessed a rise of 271.75%, in India it increased by 68.75% while in Brazil PE fundraising increased by 42.99%. Russia saw a fall of 50.84% in fundsraising[5]. **(Table 8-13)**

**Table 8-13: PE 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 |

***Source: Emerging Market Private Equity Association, Dec 2009***

Private equity investments fell in most of the BRIC countries barring Russia. Maximum fall of PE investments was seen in Brazil where investments dipped by 42.86%, India saw a fall of 23.29% and China witnessed a meager fall of 4.91%. **(Table 8-14)**

**Table 8-14: Private Equity (PE) Investments in BRIC Countries**

(in US $ mn)

| Year | 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 | 2,594 | 7,598 | 8,994 |

***Source: Emerging Market Private Equity Association, Dec 2009***

## ADRs and GDRs

Foreign investors may also invest in Indian companies through the purchase of American Depository Receipts ("ADRs") and Global Depository Receipts (GDRs). Depository receipts, whether ADRs or GDRs, are basically 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. Because ADRs/GDRs represent the underlying shares of the issuing company, their value fluctuates along with the value of the underlying shares.

5 The data reported for India may not match here with the earlier section on 'Growth of PE/VC investments in India' because this data source is EMPEA and earlier data source is Grant Thornton which reports data for India only.

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.

The ADR/GDR growth is shown in Table 8-1.

## Non Resident Indian (NRI's) and Persons of Indian Orgin (PIO)

## Market Design

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| **NRIs and PIOs** | **Non Resident Indian (NRI)** means 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 outside India 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, it means a person resident outside India who is a citizen of India or is a Person of Indian Origin.<br>**Person of Indian Origin** means any person:<br>a) who at any time, held an Indian passport; or<br>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<br>c) the person is a spouse of an Indian citizen or a person referred to in clause (a) or (b) above.<br>For investments in immovable properties;<br>Person of Indian Origin means an individual (not being a citizen of Pakistan or Bangladesh or Afghanistan or Bhutan or Sri Lanka or Nepal or China or Iran):<br>a) who at any time, held an Indian passport or<br>b) who or either of whose father or whose grandfather was a citizen of India by virtue of the Constitution of India or the Citizenship Act, 1955 (57 of 1955). |
| **Rupee and Foreign Currency Accounts** | **1) Non-Resident (External) Rupee Accounts (NRE Accounts)**<br>NRIs and PIOs, are eligible to open NRE Accounts. These are rupee denominated accounts. The balance in the account is freely repatriable.<br>**2) Ordinary Non-Resident Rupee Accounts (NRO Accounts)**<br>These are Rupee denominated non-repatriable accounts<br>**3) Foreign Currency Non Resident (Banks) Accounts (FCNR (B) Accounts)**<br>NRIs/PIOs are permitted to open FCNR (B) Accounts in Canadian Dollars and Australian dollars also besides the existing provision of maintaining such accounts in US dollars, Japanese Yen, Sterling Pounds, Euro. The account may be opened only in the form of term deposit for any of the three maturity periods viz; (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.<br>Interest income is tax free in the hands of NRI until he maintains a non-resident status or a resident but not ordinarily resident status under the Indian tax laws.<br>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 foreign investment guidelines. |

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| **Portfolio Investments** | Reserve Bank of India has granted general permission to NRIs/PIOs, for undertaking direct investments in Indian companies, under the Automatic Route, purchase of shares under Portfolio Investment Scheme, investment in companies and proprietorship/partnership concerns on non-repatriation basis and for remittances of current income. NRIs/PIOs do not have to seek specific permission for approved activities under these schemes.<br>NRIs are permitted to make portfolio investment in shares/debentures (convertible and non-convertible) of Indian companies (except print media sector), with or without repatriation benefit provided the purchase is made through a stock exchange and also through designated branch of an authorised dealer. NRIs are required to designate only one branch authorised by Reserve Bank for this purpose. **For NRIs to invest in Indian Stock Market, it is mandatory to have a PAN (Permanent Account Number) Card.**<br>NRIs are allowed to invest in shares of listed companies in recognised stock exchanges under the Portfolio Investment Scheme. NRIs can invest through designated ADs on repatriation and non-repatriation basis under the PIS route upto 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 ceilings of 10 percent can be raised to 24 percent, if the general body of the Indian company passes a special resolution to that 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 NRE/FCNR (B) account maintained in India. If the shares are purchased on non-repatriation basis, the NRIs can also utilize their funds in NRO account in addition to above. |
| **No Transferability of Shares purchase of stock exchanges is allowed** | Shares purchased by NRIs on the stock exchange under 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 chariatable trust duly registered under the laws in India) to a person resident in India or outside India without prior approval of the Reserve Bank. |
| **Investment Restrictions for NRIs/PIOs** | Investments in shares or convertible debentures of an Indian Company engaged in following type of activities are not permitted.<br>• Chit Fund or Nidhi Company<br>• Agricultural or Plantation activities<br>• Real Estate Business<br>• Construction of farm houses or<br>Dealing in Transfer of Development Rights (TDRs). |
| **Investments Allowed to NRIs/PIOs** | NRIs can invest in India as under:<br>1. Investment under Automatic Route with repatriation benefits<br>2. Investment with Government approval<br>3. Other investments with repatriation benefits<br>4. Investments upto 100% equity without repatriation benefits<br>Other investments by NRIs without repatriation benefits |

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| **Investment by NRIs on Non-Repatriation Basis** | NRIs intending to invest on non-repatriation basis should submit the application to a designated branch of an Authorised Dealer (AD). The AD will grant general permission to purchase shares/debentures to NRI subject to the condition that the payment for such investment is received through inward remittance or from the investor's NRE/FCNR/NRO Account. Investment on non-repatriation basis is allowed in the following instruments:<br>• Government dated securities (other than bearer securities)/treasury bills.<br>• Units of domestic mutual funds.<br>• Units of Money Market Mutual Funds in India.<br>• Non-convertible debentures of a company incorporated in India.<br>• The capital of a firm or proprietary concern in India, not engaged in any agricultural or plantation activity or real estate business.<br>• Deposits with a company registered under the Companies Act, 1956 including NBFC registered with RBI, or a body corporate 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 transfer from NRE/FCNR(B) Accounts into the NRO Account.<br>• Commercial Paper issued by an Indian company.<br>• Shares and convertible debentures of Indian companies other than under Portfolio Investment Scheme<br>**Securities acquired by NRIs under 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 AD. The AD will grant to NRI permission for purchase of shares/debentures subject to the conditions that -<br>• The payment is received through an inward remittance in foreign exchange or by debit to the investor's NRE/FCNR account.<br>• Investment made by any single NRI investor in equity/preference shares and convertible debentures of any listed Indian company does not exceed 5% of its total paid-up equity or preference capital or 5% of the total paid-up value of each series of convertible debentures issued by it.<br>• NRIs take delivery of the shares/convertible debentures purchased and give delivery of the shares/convertible debentures sold under the Scheme.<br>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** | Same procedure as indicated in paragraphs for Investment on Non-Repatriation Basis and Repatriation Basis above is applicable. However, approvals already granted for portfolio investment in shares/debentures of Indian companies will also be valid for purchase of units of domestic mutual funds. |

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| | 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 Scheme 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 investment are eligible for repatriation subject to some compliance. If the investment is made on a non-repatriation basis, only the net income, that is, dividend (after tax), arising out of investment is eligible for repatriation.<br>Indexation benefit is made available to NRIs in case mutual fund units are held for more than twelve months. |
| **Investment in exchange trade derivative contracts** | NRIs are allowed to invest in Exchange Trade Derivative Contracts approved by SEBI from time to time of Rupee Funds held in India on non-repatriation basis subject to the limits prescribed by SEBI.<br>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 of RBI. |
| **Monitoring of Investment Position by RBI** | Reserve Bank of India monitors the investment position of FIIs/NRIs in listed Indian companies reported by Custodian / designated AD banks on a daily basis.<br>The concept of caution list/ban list is same as discussed under the market design for FIIs. |

## NRI Investments data

**Table 8-15: NRI Turnover at NSE**

| Date | Cash Market Gross Turnover (Rs. mn) | Derivatives Gross Turnover (Rs. mn) |
|---|---|---|
| 2007-08 | 85,443.35 | 39,464.26 |
| 2008-09 | 50,161.38 | 30,190.46 |

***Source: NSE***

1. In cash segment data has been collated on the basis of client category uploaded by the Trading Members
2. Buy and Sell Amounts in Derivatives identified after custodial confirmations and completion of settlement for Institutional Category NRI
3. Both buy and sell value have been calculated as :

   Options Value (Buy/Sell) = (Premium + Strike price) × Qty

   Futures Value (Buy/Sell) = Traded Price × Qty

# Policy Debates

## Complex Regulatory Issues and Fiscal Challenges for PE Investments

Private Equity (PE) Financing is becoming an increasingly popular route of foreign investment into India. According to the *Price Waterhouse Coopers (PWC), Global Private Equity Report 2008*, among the nine Asia Pacific countries featuring among the top 20 countries based on PE Investments in 2007, India's share was the highest at 22.24% followed by Japan with a share of 18.68% and Australia (18.56%). India has carved out a niche for itself in the global PE market. As per the PWC report, India ranks number one in terms of the compound annual growth of PE investments of 79% followed by Malaysia (67%) and Denmark (56%). It was ranked third in terms of funds raised and investment value after USA and UK.

Though PE firms have shown their interest in India on the back of robust economic growth and financial opportunities in the country, there is further scope for enhanced investments by them. A main barrier to entry for PE's in India are complex regulatory issues relating to sector investment and ambiguities in the interpretation of tax codes as well as the regulatory costs. Moreover, what aggravates the problem is that there are multiple regulations with little harmonization of guidelines across government agencies and regulators; viz, SEBI, RBI, Central Board of Direct Taxes (CBDT) and Ministry of Company Affairs. The important statutes that require compliances for PE investment in India are the Companies Act, 1956, the Foreign Exchange Management Act, 2000 and the SEBI Act, 1992 along with the rules and regulation therein. For tax purposes, guidelines are issued by the CBDT. PIPE deals are also governed by the SEBI ICD Regulations, which deals with the regulations relating to QIBs and Preferential Placement. Specifically, PE funds are covered under FVCI (Foreign Venture Capital Investor) regulations as there are no separate guidelines for PE funds. PE needs to be defined as a separate asset class with separate regulations/guidelines. The definition needs to appreciate that PE is long-term capital, unlike a hedge fund where main motives are short-term gains.

PE has entered the economic mainstream and has gained a lot of momentum over the past few years. A simple well defined regulatory regime with no scope of confusion can go a long way in helping the PE firms to grow further in the country.

# Knowledge Initiatives

Several initiatives have been taken over the last few years with a view to develop the skills of market intermediaries, educate the investors and promote high quality research in the securities market.

## Quality Intermediation

In some of the developed and developing markets, there is a system of testing and certification for persons joining market intermediaries. This ensures that these personnel have a minimum required knowledge about the market and the existing regulations. The benefits of this system are wide spread. While the intermediaries are assured of qualified staff, the employees get an opportunity to improve their career prospects. This in turn instills confidence in the investors to be associated with the securities market. The formal educational or training programme on securities markets is not adequate to cover their areas of operations. As a result, a need for certification was being increasingly felt by the regulators as well as by the securities industry.

## NSE's Certification in Financial Markets [NCFM]

National Stock Exchange's Certification in Financial Markets (NCFM), a testing and certification mechanism, has become extremely popular and is sought after by the candidates as well as employers due to its unique on-line testing and certification programme. It offers all the certifications mandated by SEBI, NSDL, AMFI, FIMMDA and NSE itself. The entire process from generation of question paper, testing, assessing, scores reporting and certifying is fully automated and there is absolutely no human intervention. It allows tremendous flexibility in terms of testing centres, dates and timing by providing easy accessibility and convenience to candidates as they can be tested at any time and from any location. The purpose is to test the practical knowledge and skills that are required to operate in the financial markets, in a very secure and unbiased manner.

NCFM offers a comprehensive range of modules covering many different areas in finance. NCFM currently tests expertise in the modules mentioned below in Table 9-1.

During the year 2009-10, NCFM introduced the AMFI – Mutual (Advisors) Module Test and Financial Markets Module Test in Gujarati and Hindi languages. Various new modules were also launched. The 'Currency Derivatives: A Beginner's Module' was launched in September 2009 with a view to improve awareness about the 'Currency Derivatives' product. The course content is structured to help a beginner understand what the product is, how it is traded and what uses it can be put to. On November 19, 2009 the module on 'Equity Derivatives: A Beginner's Module': was launched to equip candidates with basic but essential information and concepts regarding the equity derivatives markets. On January 11, 2009 a module on 'Interest Rate Derivatives: A Beginner's Module' was introduced. This module aims at creating a better understanding of the concepts underlying the money market and giving insights into the motives of and operations related to the trading of interest rate derivatives. The Investment Analysis and Portfolio Management Module was launched on March 19, 2010 which aims at providing an overview of the various investment instruments in the financial markets with details on evaluating investment opportunities to satisfy risk-return objectives of investors.

**Table 9-1: NCFM Module Test Details**

| Sr. No. | Name of Module | Fees (Rs.) | Test Duration (in minutes) | No. of Questions | Maximum Marks | Pass Marks (%) | Certificate Validity (in years) |
|---|---|---|---|---|---|---|---|
| 1 | Financial Markets: A Beginner's Module | 1500 | 120 | 60 | 100 | 50 | 5 |
| 2 | Mutual Funds : A Beginner's 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 | Securities Market (Basic) Module | 1500 | 105 | 60 | 100 | 60 | 5 |
| 7 | Capital Market (Dealers) Module | 1500 | 105 | 60 | 100 | 50 | 5 |
| 8 | Derivatives Market (Dealers) Module | 1500 | 120 | 60 | 100 | 60 | 3 |
| 9 | FIMMDA-NSE Debt Market (Basic) Module | 1500 | 120 | 60 | 100 | 60 | 5 |
| 10 | Investment Analysis and Portfolio Management | 1500 | 120 | 60 | 100 | 60 | 5 |
| 11 | NISM-Series-I: Currency Derivatives Certification Examination | 1000 | 120 | 60 | 100 | 60 | 3 |
| 12 | NISM-Series-II-A: Registrars to an Issue and Share Transfer Agents – Corporate Certification Examination | 1000 | 120 | 100 | 100 | 50 | 3 |
| 13 | NISM-Series-II-B: Registrars to an Issue and Share Transfer Agents – Mutual Fund Certification Examination | 1000 | 120 | 100 | 100 | 50 | 3 |
| 14 | NSDL–Depository Operations Module | 1500 | 75 | 60 | 100 | 60 # | 5 |
| 15 | Commodities Market Module | 1800 | 120 | 60 | 100 | 50 | 3 |
| 16 | AMFI-Mutual Fund (Basic) Module | 1000 | 90 | 62 | 100 | 50 | No limit |
| 17 | AMFI-Mutual Fund (Advisors) Module | 1000 | 120 | 72 | 100 | 50 | 5 |
| 18 | Surveillance in Stock Exchanges Module | 1500 | 120 | 50 | 100 | 60 | 5 |
| 19 | Corporate Governance Module | 1500 | 90 | 100 | 100 | 60 | 5 |
| 20 | Compliance Officers (Brokers) Module | 1500 | 120 | 60 | 100 | 60 | 5 |
| 21 | Compliance Officers (Corporates) Module | 1500 | 120 | 60 | 100 | 60 | 5 |
| 22 | Information Security Auditors Module (Part-1) | 2250 | 120 | 90 | 100 | 60 | 2 |
| | Information Security Auditors Module (Part-2) | 2250 | 120 | 90 | 100 | 60 | |
| 23 | FPSB India Exam 1 to 4 | 2000 per exam | 120 | 75 | 140 | 60 | NA |
| 24 | Options Trading Strategies Module | 1500 | 120 | 60 | 100 | 60 | 5 |

Candidates have the option to take the Capital Market (Dealers) Module (CMDM) test in English, Gujarati or Hindi language. The workbook for the module is presently available in ENGLISH.

Candidates have the option to take the Derivatives Market (Dealers) Module (DMDM) test in English, Gujarati or Hindi language. The workbook for the module is also available in ENGLISH, GUJARATI and HINDI languages.

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

Candidates have the option to take the AMFI (Adv) test in English, Gujarati or Hindi languages. The workbook for the module, which is available for a fee at AMFI, remains in ENGLISH.

Modules of Financial Planning Standards Board India (Certified Financial Planner Certification) i.e. (i) Risk Analysis & Insurance Planning (ii) Retirement Planning & Employee Benefits (iii) Investment Planning and (iv) Tax Planning & Estate Planning.

The curriculum for each of the module (except FPSB India Exam 1 to 4) is available on our website: www.nseindia.com > NCFM > Curriculum & Study Material.

## NSE Certified Market Professional (NCMP)

NSE Certified Market Professional (NCMP) certificate is issued to those candidates who have cleared NCFM modules as prescribed by the exchange. This certification was launched on August 17, 2009 as per the below eligibility criteria. This hierarchy of certifications is aimed at enabling the candidates to better demonstrate their domain knowledge relating to financial markets. Thus, a candidate clearing 3 – 4 modules would be given "NCMP Level 1" certificate and so on. Currently there are 13 modules qualifying for the NCMP certification which are available on the NSE website.

- **NCMP Level 1** : 3 – 4 modules
- **NCMP Level 2** : 5 – 6 modules
- **NCMP Level 3** : 7 – 8 modules
- **NCMP Level 4** : 9 or more modules

## CBSE – NSE joint certification in Financial Markets

CBSE and NSE introduced a joint certification in Financial Markets for Std. XI and XII. The course, titled "Financial Markets Management" had been introduced by CBSE for academic year 2007 - 2008. The course comprises of various subjects, such as Languages, Economics, Business Studies, Accounting for Business etc. Besides these, two financial market related subjects, "Introduction to Financial Markets – I" and "Introduction to Financial Markets – II" are taught in Std. XI and XII respectively. Students opting for the course are required to take the NCFM on-line tests in "Financial Markets : A Beginners Module" in Std. XI and both "Capital Markets (Dealers) Module and Derivatives Markets (Dealers) Module", in Std. XII. The course is in its third year and over 1500 students are enrolled for the course. This is the first such attempt to introduce financial literacy in a formal way in schools.

## Research Initiatives

Knowledge management is very important in today's competitive world. It acts as a tool which helps to acquire the cutting edge in a globalised financial market. The regulators and SROs have been actively promoting academicians and market participants to carry out research about various topics in the various segments of securities market. During the year 2009 nine research papers were completed under the NSE Research Initiative. While the completed papers are available on the NSE website, we present here non-technical abstracts of these papers

1. ***Dynamic Interaction among Mutual Fund Flows, Stock Market Return and Volatility***

*BY M.Thenmozhi, Professor, Department of Management Studies, IIT Madras and Manish Kumar*

*Research Scholar, Department of Management Studies, IIT Madras*

This study examines the dynamic interaction between mutual fund flows and security returns and between mutual fund flows and volatility. The results based on the contemporaneous relationship using daily data suggest that a positive relationship exist between stock market returns and mutual fund flows measured as stock purchases and sales. This positive concurrent relationship continues to exist even after controlling for volume. The analysis of causal relationship between mutual fund flows and market returns show that mutual fund outflows (sales) are significantly affected by return in the equity market. However, the latter is not significantly influenced by variation in these flows which suggests negative feedback trading behavior in the Indian market. The results show that a strong positive relationship exists between stock market volatility and mutual fund flows measured as stock purchases and sales. This positive concurrent relationship continues to exist even after controlling for volume. The analysis on the direction of relationship between volatility and mutual fund flows suggests that market volatility is positively related to lag flow, and that shock inflow has a positive impact on market volatility. The results provide evidence that the relationship is stable even after including these exogenous variables such as volume and market fundamental variables such exchange rates, dividend and short term interest rates in the model. Increase in the aggregate inflows and outflows are associated with more volatile market.

2. ***Correlation Dynamics in Equity Markets: Evidence from India***

*By S. Raja Sethu Durai and Saumitra N Bhaduri, Madras School of Economics*

Equity market integration has wider notion in finance literature. Markets are said to be highly integrated only if irrespective of the market, assets with similar risk have identical expected return. Albeit this, understanding the correlation structure and dynamics of the equity markets of the world is the first step in getting the bigger picture of market integration. Without a good correlation structure, other aspects of market integration are not theoretically reflective. Keeping that in mind this study analyzes the correlation structure of the Indian equity markets with that of world markets. This paper uses daily data from 1st July 1997 to 18th August 2006 of the following 11 world indices: NASDAQ Composite (USA), S&P 500 (USA), FTSE 100 (UK) and DAX 30 (Germany) are classified as developed markets, whereas KLSE Composite (Malaysia), Jakarta Composite (Indonesia), Straits Times (Singapore), Seoul Composite (South Korea), Nikkei (Japan), Taiwan Weighted Index (Taiwan) and the S&P CNX Nifty (India) are considered as Asian markets.

The following three generic correlation measures are derived. *All markets* considered the entire 11 markets specified, *Asian markets* considered only the 7 markets classified, *developed markets* considered only the 4 markets classified. Further to get deeper insight on the individual correlation structure between S&P CNX Nifty with world markets two other measures are derived. *S&P CNX Nifty-Asian* considered S&P CNX Nifty with other 6 Asian markets and *S&P CNX Nifty-Developed* considered S&P CNX Nifty with the 4 developed markets. Estimates of correlations indicate poor correlation with an average correlation being below 30 percent. The highest correlation is seen for 4 developing countries specified with around 60 percent. The individual correlation structures between S&P CNX Nifty with other markets are fairly lower than other estimates.

Tests to see if there have been any potential regime shift in the correlation dynamics and to categorize the phase of integration across these markets, for *S&P CNX Nifty-Asian* and *S&P CNX Nifty- Developed* indices show that there is a significant regime shift in the year 2000 and there is a considerable increase in integration in the second regime. This indicates that the S&P CNX Nifty index is moving towards a better integration with other world markets but not at a very noteworthy phase. The high volatility in recent years faced by the Indian equity markets can be attributed to this low level of correlation and market integration with other world markets as it provides space for the global funds to diversify risk.

3. ***Price Discovery and Arbitrage Efficiency of Indian Equity Futures and Cash Markets***

*By Kapil Gupta and Dr. Balwinder Singh*

This study investigates the price discovery efficiency and validity of Law of One Price in the Indian equity market by using tick-by-tick data available of NSE. The study finds that strong and stable long-run relationship exists between Indian equity futures and cash markets. However, during short-run significant deviations from equilibrium relationship have been observed. Empirical findings in the study suggest that price discovery takes place in both markets, whereas, the Indian equity futures market dominates the information transmission process and the duration of lead-lag between two markets has been found to be varying in the range of five to fifty five minutes.

The study further finds that days to expiry do not play significant role in the price discovery mechanism of Nifty futures contracts. However, mispricings for individual stock futures contracts are found to be significantly negatively associated with days to expiry. This implies that near to the expiration date more arbitrage opportunities are available and these findings support the early liquidation option. Regulatory restriction on the participation of institutional traders may be a significant factor leading to negative association between mispricings of futures contracts and days to expiry. Therefore, there is a tendency for institutional traders to either unwind or rollover their positions before maturity date, which not only makes money available to them but also enables them to take new positions.

4. ***Stock Market Seasonality: A Study of the Indian Stock Market***

*By Ash Narayan Sah, Assistant Professor, University of Petroleum & Energy Studies*

Seasonality refers to regular and repetitive fluctuation in a time series which occurs periodically over a span of less than a year. The existence of seasonality in stock returns however violates an important hypothesis in finance, that is, efficient market hypothesis (EMH). According to this hypothesis, security prices reflect fully all the information that is available in the market. Since all the information is already incorporated in prices, a trader is not able to make any excess returns.

This study examines the seasonality of stock market in India. It considers the S&P CNX Nifty as the representative of stock market in India and tests whether seasonality is present in Nifty and Nifty Junior returns using daily and monthly data sets. The study finds that daily and monthly seasonality is present in Nifty and Nifty Junior returns. The analysis of stock market seasonality using daily data, reveals Friday Effect in Nifty returns while Nifty Junior returns were statistically significant on Friday, Monday and Wednesday. In case of monthly analysis of returns, the study finds that Nifty returns are statistically significant in July, September, December and January. In case of Nifty Junior, June and December months are statistically significant. The results establish that the Indian stock market is not efficient and investors can improve their returns by timing their investment.

5. ***The Dynamic Relationship between Stock Returns, Trading Volume and Volatility: Evidence from Indian Stock Market***

*By Brajesh Kumar and Priyanka Singh*

This paper empirically examines the relationship between returns, volatility and trading volume for 50 Indian stocks. Three measures of trading volume namely number of transactions; number of shares traded and value of shares traded are used. The contemporaneous correlation between returns and trading volume and asymmetric relation between level of trading volume and returns is examined. The dynamic relation as marked by lead-lag relationship is also investigated between the returns and volume. In case of volatility, the contemporaneous and asymmetric relation is examined between unconditional volatility and volume. The evidence for positive contemporaneous relation between returns and volume as well as conditional and unconditional volatility and volume is found. The results indicate that the level of volume is dependent on the direction of price change only in case of 60% of the stocks in the sample. Further empirical tests indicate that for some stocks returns cause trading volume, which is easily conceivable in the context of an emerging market where development of the market causes sequential information dissemination. It is also found that in Indian stock market, the number of transactions may be a better proxy of information than the number of shares traded and the value of shares traded.

6. ***Optimal investment horizons for S&P CNX Nifty and its components***

*By Dr. Pradeep Raje, Adfactors PR Pvt. Ltd.*

The distributions of the first passage time for the S&P CNX Nifty and its 50 constituent stocks are examined. Numerical analysis shows the 'optimal' investment horizon at 5% return level is about 15 days for the index and is most frequently distributed at seven days (range: 5 to 15 days) for the 50 constituent stocks. This suggests a complex dynamics between the index and its constituents in terms of feedback and feed-forward loops. The paper also examines the distribution of first passage times for six world indices, the Dow Jones Industrial, Hang Seng, FTSE, SSEC, Kospi and the Nikkei. These range between 13 days (for the Kospi) to 47 days for the FTSE. Two distinct regimes, for both positive and negative returns) are observed in the evolution of the optimal investment horizon over different return levels.

7. ***Global Stock Futures: A Diagnostic Analysis Of A Selected Emerging And Developed Markets With Special Reference To India***

*By Dr. Debasis Bagch, Professor of Finance, IILM Graduate School of Management*

This paper investigates the nature of dynamic relationship that exists amongst selected futures indexes in American, European and Asian continents. A total of nine futures indexes are selected for investigation. The correlations among the future indexes on regional account are found to be strongly positive which is suggestive that the indexes are affected more on regional news rather on world news. The futures indexes are found to be non-stationary and American and Asian futures markets are not cointegrated, while European futures markets are found to be cointegrated. It implies that diversification and risk reduction is possible in American and Asian futures markets, but not likely in European futures markets on individual regional basis. However, the futures markets are cointegrated on inter-region basis, meaning thereby that long-term dynamic equilibrium relationship exists amongst the inter-region futures indexes, for instance, American and European, American and Asian, Asian and European futures markets. The results suggest risk diversification is less possible between regions, yet arbitrage opportunity may exist due to short-term deviation from the long-term equilibrium.

Further tests indicate that the longrun equilibrium is affected by short-run deviations, but such deviations are small that quickly revert to equilibrium condition. Also, emerging market in American continent, i.e., Mexico has a reflective effect on US Futures market while in Europe, the FTSE 100 Futures index has a predominating character. For the European futures, the France and UK futures indexes are dynamically deviating in short-run period as the shock is found to transmit in a powerful manner over the time horizon, while it is found to be low for S&P MIB (Italian futures index), revealing short-term deviations are less in this case. In Asian region, Kospi 200 Futures is found to respond comparatively higher with respect to Nifty Futures and MSCI SGX Futures. The results of the study are useful for the global fund managers in their effort to diversify risk, as cointegrated markets give little opportunity to minimize the risk through diversifications, while the non-cointegrated markets do. Nevertheless, since the cointegration is also useful to analyze arbitrage opportunity, the fund managers can utilize such opportunities available in the futures markets to their advantages by understanding the nature and extent of short-run deviations from equilibrium. The results are also important for the policy makers as the desired impact of introduction of regulatory or deregulatory measures could be affected due to underlying linkages, whose cumulative effect may remain hidden and which could jeopardize the policy framework. The policy makers may incorporate these linkages into their policy decisions model to make their implementation process successful.

8. ***Examining Associations between S&P CNX Nifty and selected Asian & US Stock Markets***

*By Dr Saif Siddiqui, Assistant Professor-Finance, Centre for Management Studies, Jamia Millia Islamia*

In a dynamic economic environment, knowledge of the international stock market structure is important for both investors and portfolio managers. Various theories in finance, suggest that individual and institutional investors should hold a well-diversified portfolio to reduce risk. From the perspective of an international investor who is willing to make portfolio investments in different stock markets, it is important to know if diversification can give some gain or not. International diversification is sought due to differences in the levels of economic growth and timing of business cycles among various countries. But, if the stock markets of different countries move together, then investing in different national stock markets would not generate any long-term gain to portfolio diversification.

This paper examines the interdependence between different Asian markets, including S&P CNX Nifty and its relation with other markets. Stock Indices under study are BSE 30 (BSE), S&P CNX Nifty (NIFTY), Shanghai Composite (SC), Hang Seng (HS), Jakarta Composite (JC), KLSE Composite (KLSE), Nikkei 225 (NIKKEI), Straits Times (ST),Seoul Composite (SEOUL), Taiwan Weighted (TAIWAN), TA-100 (TA) , DJIA (DJIA) and S&P 500 (S&P). The study is based on secondary data, which covers the period using daily closing figure from 01/06/1999 to 01/06/2009. For better understanding and to judge time varying results the time period is divided into two equal parts. Period-I starts from 01/06/2009 to 02/06/2004 and Period –II is ranged between 01/06/2004 to 01/06/1999

Interdependency among global stock markets is studied primarily through correlation of returns, Co-integration and the Granger Causality. It is observed that a significant change took place in results derived from the analysis of data of Period- I and II. The results show that volatility has gone down in Period-II. Change in correlation between the indices is also widespread in Period-II. It can further be derived that the interdependencies among the indices understudy has increased in Period-II. No very clear direction of relationships exists in the sense of Granger Causality indicating the fact that influence of few markets, especially that of the US, has eroded over a period of time. Both the US markets are unable to cause impacts in various Asian markets.

It can be concluded that stock market integration and causation between different markets and indices have changed. These developments in the international stock markets will pose great challenges before the investors to look for the markets with low correlation (study suggest that correlation of returns has increased in most of the cases in Period –II) with that of the domestic markets so as to exploit the gains of diversification as well as before policy makers because these growing interdependencies will infuse crisis in the domestic economy from other economies.

9. ***Does the stock market overreact? : Empirical evidence of contrarian returns from Indian Markets***

*By Dr. Mayank Joshipura, Associate Professor, Finance, S. P. Jain Institute of Management & Research*

The study documents the presence of contrarian returns in Indian markets. The study is based on the monthly return data of listed companies on NSE for the period of 1995 to 2008. The results show an evidence of momentum profits for shorter periods of six months and one year, whereas contrarian returns are evident in a longer test period of three years. It is also found that the presence of momentum and contrarian returns cannot be associated with risk adjustments only. The study provides enough evidence against weak form of market efficiency-which claims that superior returns cannot be produced on the basis of investment strategies based on historical data and if any such returns are earned it may be a mere compensation for the higher risk taken. The study confirms the behavioral explanation of overreaction due to activity of momentum traders followed by reversal in long run. The results of the study find evidence in favour of overreaction hypothesis and short term momentum followed by reversal. The study provides evidence of overreaction led momentum profits in short run followed by contrarian profits in long run.

## Data Dissemination

NSE compiles, maintains and disseminates high quality data to market participants, researchers and policy-makers. This acts as a valuable input for formulating strategy, doing research and making policies. NSE has been maintaining the historical database of all the details of every order placed on its trading system and every trade executed. This data is disseminated through monthly CD/DVDs releases which are priced at a nominal rate. The following information is available on CDs/DVDs:

- Summary information about each security's high price, low price, closing price and last traded price, turnover (value and volume), and number of trades for each trading day.
- Database of stock market indices computed by IISL. Both intra day and end of day information is available for Nifty, CNX Midcap and Defty.
- Snapshots of limit order book of NSE at different points during a day.
- Database of circulars issued during the month. Every development in the market in terms of market design is documented in these circulars.

## Investor Awareness and Education

NSE has been carrying out investor awareness and education seminars on a regular basis in various centres across the country. Informative brochures and booklets have been prepared for educating investors which are distributed free of cost at the seminars. 900 Investor Awareness Programmes were conducted during the year 2009.

## 'Visit to NSE' Program

It has been the endeavor of NSE to spread knowledge about financial markets as widely as possible. As part of this endeavor, NSE has been organizing the 'Visit to NSE' Program, under which groups of students visit NSE to attend a 2-hour session. The sessions are based on different topics where the students learn about stock exchange structure, its operations, products traded on it and so on. They also learn about NSE's NCFM certification which not only expands their knowledge base, but also improves their career prospects. This program is conducted in the Mumbai office as well as the regional offices located at Delhi, Kolkata and Chennai**.** More than 45 colleges have visited the Exchange since August 2009.

## Investor awareness efforts for Currency Derivatives

The Exchange has been in the forefront of the securities market reforms including creation of a vibrant derivatives market. Over the years, NSE has taken many new initiatives to strengthen the securities industry. With active participation from all market participants, NSE has launched several new products in the last couple of months like Mini Nifty, Long Dated Options, Cross Margining, Currency and Interest Rate Futures, Mutual Fund Service System to name a few.

Focused efforts have been made to enhance the awareness and understanding of the new products introduced by NSE for its members The efforts have been well received and have helped in driving volumes in these product categories. The daily average turnover in Currency Futures has increased from Rs 262 Crs in Sep'08 to Rs 11981 Crs in Feb'10.

To spread awareness on the new products introduced in the recent past, such as Currency Derivatives/ Interest Rate Derivatives more than 755 interactive sessions have been organized in association with NSE members, trade associations and professional groups at in more than 100 locations, most of which are tier II towns and cities.

Some of the highlights of the Awareness program conducted are

- Seminars and workshops with more than 100 NSE members and their network across regions.
- Seminars on Currency and Interest Rate Futures with more than 42 trade promotion councils, export promotion councils, Chambers of Commerce and professional bodies.
- Programs conducted at more than 100 locations across tier I and tier II locations.
- Faculties include academicians, experts from Banking industry, Forex market and senior officials from top AMCs and Exchange officials.

# NOTES

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