Securities Market in India – An Overview

Introduction

This publication reviews the reforms and other market developments in the securities market in India during April 2003 to June 2004. As a result of the reforms/initiatives taken by the Government and the Regulators, the market microstructure has been refined and modernized. The investment choices for the investors have also broadened. The securities market moved from T+3 settlement period to T+2 rolling settlement with effect from April 1, 2003. Further, straight through processing has been made mandatory for all institutional trades executed on the stock exchange. Real time gross settlement has also been introduced by RBI to settle inter-bank transactions online at real time mode. These reforms along with other market developments have been discussed in detail in the following chapters. This chapter, however, takes a general review of the stock market developments. These developments in the securities market provide the necessary impetus for growth and development, and thereby strengthen the emerging market economy in India.

Products and Participants

Mobilization of savings from surplus savers to deficit savers is most efficiently carried out by the securities market through a range of complex products called "securities". The definition of securities as per the SCRA, 1956 includes shares, bonds, scrips, stocks or other marketable securities of like nature in or of any incorporate company or body corporate, government securities, derivatives of securities, units of collective investment scheme, interest and rights in securities, security receipt or any other instruments so declared by the central government.

The securities market has essentially three categories of participants, *viz.*, the issuer of securities, investors in securities and the intermediaries. The issuers are the borrowers or deficit savers, who issue securities to raise funds. The investors, who are surplus savers, deploy their savings by subscribing to these securities. The intermediaries are the agents who match the needs of users and suppliers of funds for a commission. These intermediaries pack and unpack securities to help both the issuers and investors to achieve their respective goals. There are a large variety and number of intermediaries providing various services in the Indian securities market (Table 1-1).

This process of mobilization 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 1-1: Market Participants in Securities Market

Market Participants	Number as on March 31	
	2003	2004
Securities Appellate Tribunal	1	1
Regulators*	4	4
Depositories	2	2
Stock Exchanges		
With Equities Trading	23	23
With Debt Market Segment	1	1
With Derivative Trading	2	2
Brokers	9,519	9,368
Corporate Brokers	3,835	3,746
Sub-brokers	13,291	12,815
FIIs	502	540
Portfolio Managers	54	60
Custodians	11	11
Share Transfer Agents	143	78
Primary Dealers	19	18
Merchant Bankers	124	123
Bankers to an Issue	67	55
Debenture Trustees	35	34
Underwriters	43	47
Venture Capital Funds	43	45
Foreign Venture Capital Investors	6	9
Mutual Funds	38	37
Collective Investment Schemes	5	–

* DCA, DEA, RBI & SEBI.
Source: SEBI Bulletin.

Market Segments

The securities market has two interdependent segments: the primary and the secondary market. The primary market is the channel for creation of new securities. These securities are issued by public limited companies or by government agencies. In the primary market the resources 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.

These new securities issued in the primary market are traded in the secondary market. The secondary market enables participants who hold securities to adjust their holdings in response to changes in their assessment of risks and returns. 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. There are 23 exchanges in India and all of them 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 the National Stock Exchange (NSE) are cleared and settled by a clearing corporation. The clearing corporation acts as a counterparty and guarantees settlement. Nearly 100% of the trades in capital market segment are settled through demat delivery. NSE also provides a formal trading platform for trading of a wide range of debt securities, including government securities. 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 Stock Exchange, Mumbai (BSE) provides trading in the derivatives of securities.

International Scenario

Following the implementation of reforms in the securities industry during the last decade, Indian stock markets have graduated to a better position vis-à-vis the securities market in developed and emerging markets. As may be seen from Table 1-2, India has a turnover ratio, which is comparable to the other developed market, and also one of the highest in the emerging markets. At the end of 2003, Standard and Poor's (S&P) ranked India 17th in terms of market capitalization (19th in 2002), 16th in terms of total value traded in stock exchanges (17th in 2002) and 6th in terms of turnover ratio (7th in 2002). India has the number one ranking in terms of listed securities on the Exchanges followed by the USA. These data, though quite impressive, do not reflect the full Indian market, as S&P (even other international publications) does not cover the whole market. For example, India has more than 9000 listed companies at the end of March 2004, while S&P considers only 5,644 companies. If whole market were taken into consideration, India's position vis-à-vis other countries would be much better.

Table 1-2: International Comparison: end December 2003

Particulars	USA	UK	Japan	Germany	Singapore	Hongkong	China	India
No. of listed Companies	5,295	2,311	3,116	684	475	1,029	1,296	5,644
Market Capitalisation ($ Bn.)	14,266	2,412	3,041	1,079	145	715	681	279
Market Capitalisation Ratio (%)	139.8	159.7	70.3	57.5	168.4	426.4	55.2	56.4
Turnover ($ Mn.)	15,547	2,151	2,273	1,147	88	332	477	285
Turnover Ratio (%)	122.8	100.6	88.0	130.0	71.1	56.3	83.3	138.5

Source: S&P Emerging Stock Market Factbook, 2004

A comparative study of concentration of market indices and indices stocks in different world markets is presented in the table below. It is seen that the index stocks' share of total market capitalisation in India is 75.0% whereas US index accounted for 93.8%. The ten largest index stocks share of total market capitalisation is 36.5% in India and 16.4% in case of US.

Market Concentration in the World Index as on End 2003

(In Percent)

Market	Index Stocks Share of Total Market Capitalization	10 largest Index Stocks' Share of Total Market Capitalization
Japan	99.2	20.4
Singapore	91.2	57.9
France	89.5	42.2
Germany	83.6	44.6
Italy	95.5	55.9
United Kingdom	94.3	43.6
United States	93.8	16.4
India	75.0	36.5

The stock markets worldwide have grown in size as well as depth over last one decade. As can be observed from Table 1-3, the turnover on all markets taken together have grown from US $ 5.5 trillion in 1990 to $ 38 trillion in 2002 when it reached a peak. Thereafter, it has witnessed a decline and stood at US $ 29.6 trillion in 2003. It is significant to note that US alone accounted for about 52.4% of worldwide turnover in 2003. Despite having a large number of companies listed on its stock exchanges, India accounted for a meagre 0.96% in total world turnover in 2003. The market capitalization of all listed companies taken together on all markets stood at US $ 31 trillion in 2003 ($ 23 trillion in 2002). The share of US in worldwide market capitalisation decreased from 47.24% as at end-2002 to 44.66% in end-2003, while Indian listed companies accounted for 0.87% of total market capitalisation in 2003.

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

(US $ million)

Country/Region	Market Capitalisation (end of period)			Turnover		
	2001	2002	2003	2001	2002	2003
Developed Markets	25,242,989	20,957,836	28,290,981	39,676,018	36,098,731	26,743,153
Australia	374,269	380,969	585,475	240,667	294,658	369,845
Japan	2,251,814	2,126,075	3,040,665	1,826,230	1,573,279	2,272,989
UK	2,217,324	1,864,134	2,412,434	1,871,894	2,721,342	2,150,753
USA	13,810,429	11,052,403	14,266,266	29,040,739	25,371,270	15,547,431
All Emerging Markets	2,556,979	2,439,080	3,656,722	2,404,321	2,499,768	2,896,144
China	523,952	463,080	681,204	448,928	333,369	476,813
India	110,396	131,011	279,093	249,298	197,118	284,802
Indonesia	23,006	29,991	54,659	9,667	13,042	14,774
Korea	220,046	249,639	329,616	711,192	826,620	682,706
Malaysia	120,007	123,872	168,376	20,772	27,623	50,135
Philippines	41,523	39,021	23,565	3,148	3,103	2,635
Taiwan	292,621	261,474	379,023	544,808	631,931	592,012
World Total	27,799,968	23,396,916	31,947,703	42,080,339	38,598,498	29,639,297
US as % of World	49.68	47.24	44.66	69.01	65.73	52.46
India as % of World	0.40	0.56	0.87	0.59	0.51	0.96

Source: S&P Emerging Stock Market Factbook, 2004

There has also been an increase in market capitalisation as a per cent of GDP in some of the major country groups as is evident from Table 1-4. The increase, however, has not been uniform across countries. The market capitalization as a per cent of GDP was the highest at 83.4% for high-income countries as at end-2002 and lowest for low-income countries at 22.6%. Market capitalization as a per cent of GDP for India stood at 25.7% as at end-2002. The turnover ratio, which is a measure of liquidity, however was approximately same for both the high-income countries and low-income countries which stood at 137.9% and 139.6%, respectively. The total number of listed companies stood at 26,947 for high-income countries, 13,307 for middle-income countries and 7,322 for low-income countries as at end-2003.

Table 1-4: Select Stock Market Indicators

Markets	Market Capitalisation as % of GDP			Turnover Ratio (%)			Listed Domestic Companies		
	1990	2001	2002	1990	2002	2003	1990	2002	2003
High Income	51.6	103.9	83.4	59.4	138.5	137.9	17,747	26,035	26,947
Middle Income	20.0	35.7	35.3	78.3	44.4	44.1	4,231	9,442	13,307
Low & Middle Income	18.8	33.1	33.3	70.7	58.0	57.8	7,677	17,284	20,629
East Asia & Pacific	16.4	45.8	40.4	117.2	72.5	72.7	774	2,886	3,132
Europe & Central Asia	2.2	19.3	22.7	–	54.2	53.6	110	2,759	6,781
Latin America & Caribbean	7.7	33.4	27.4	29.8	21.6	21.7	1,734	1,570	1,381
Middle East & N. Africa	27.4	26.3	26.1	–	19.8	19.6	817	2,020	1,585
South Asia	10.8	19.7	22.7	54.0	180.3	180.3	3,231	7,010	6,839
Sub-Saharan Africa	52.2	103.9	47.3	–	23.8	23.7	1,011	1,039	911
Low Income	9.8	18.3	22.6	53.8	53.8	139.6	3,446	7,842	7,322
India	12.2	23.1	25.7	65.9	225.8	14.1	2,435	5,650	5,644
World	48.0	90.7	74.6	57.2	57.2	123.0	25,424	43,319	47,576

Source: World Development Indicators 2004, World Bank.

Dependence on Securities Market

Corporate Sector

The 1990s witnessed the emergence of the securities market as a major source of finance for trade and industry in India. A growing number of companies have been accessing the securities market rather than depending on loans from financial institutions (FIs)/banks. The corporate sector is increasingly depending on external sources (domestic market borrowings and loans) for meeting its funding requirements. According to CMIE data (Table 1-5), the share of capital market based instruments in resources raised externally had been quite significant in the 1990s, however it declined to 21% in 2001-02. However, the year 2002-03 witnessed the erosion of the corporates to raise money from capital market, which was mainly because of the subdued conditions prevalent in the primary and secondary market

Table 1-6 presents sector-wise shareholding pattern of companies listed on NSE. It is observed that on an average the promoters hold more than 55% of total shares. Though the non-promoter holding is about 44.9%, the public held only 17.7% and the institutional holdings (by FIIs, MFs, FIs) accounted for 16.4%. There is not much significant difference in the shareholding pattern of companies in different sectors. About 56% of shares in companies in

Petrochemicals sector are held by Indian promoters. The promoter holding is not strikingly high in respect of companies in the IT sectors.

Table 1-5: Dependence on Securities Market

Year	Share (%) of Securities Market in			
	External Finance of Corporates	Fiscal Deficit of Central Government	Fiscal Deficit of State Government	Financial Savings of Households
1990-91	19.35	17.9	13.6	14.4
1991-92	19.17	20.7	17.5	22.9
1992-93	33.38	9.2	16.8	17.2
1993-94	53.23	48.0	17.6	14.0
1994-95	44.99	35.2	14.7	12.1
1995-96	21.67	54.9	18.7	7.7
1996-97	22.12	30.0	17.5	6.9
1997-98	28.16	36.5	16.5	4.5
1998-99	27.05	60.9	14.1	4.2
1999-00	33.58	67.1	13.9	7.3
2000-01	31.39	61.4	13.8	4.3
2001-02	20.60	69.4	15.2	8.0
2002-03	(17.98)	77.6	19.9	5.9
2003-04	N. A.	64.9	32.1	N. A.

Source: CMIE & RBI.

Table 1-6 : Shareholding Pattern at the end of March 2004 of Companies Listed on NSE

(In per cent)

Sectors	Non-Pomoters' Holding							Promoters' Holding		
	Institutional Investors			Non-Institutional Investors						
	FIs	FIIs	MFs	Indian Public	NRIs/ OCBs	Private Corporate Bodies	Others	Indian Promoters	Foreign Promoters	Persons Acting in Concert
Finance	7.61	10.41	2.04	19.06	0.90	3.97	5.80	46.96	0.10	3.05
FMCG	11.18	10.58	1.12	20.75	0.43	1.42	0.14	13.82	40.43	0.14
Infrastructure	5.62	4.36	1.10	24.27	1.59	5.79	3.72	42.31	4.81	6.42
IT	3.07	10.94	2.16	27.57	2.04	13.34	7.89	28.27	2.69	2.03
Manufacturing	6.22	5.73	3.57	15.45	1.28	4.25	2.83	51.45	5.47	3.75
Media & Entertainment	5.45	11.06	2.77	17.62	0.57	5.49	0.74	51.77	3.96	0.56
Petrochemicals	6.42	2.91	2.75	18.45	0.98	4.42	4.00	56.62	1.33	2.13
Pharmaceuticals	5.40	7.86	2.17	26.93	3.92	5.00	3.48	37.83	5.67	1.75
Services	8.28	5.57	4.03	20.25	1.30	4.48	2.75	45.89	4.51	2.95
Telecommunication	4.42	8.69	2.32	5.09	0.86	1.67	24.51	48.56	3.03	0.86
Misc	9.55	2.62	3.53	20.08	2.47	7.74	5.86	37.35	6.70	4.10
All Companies	6.58	7.06	2.83	17.72	1.27	4.67	4.80	46.85	5.36	2.86

Governments

Due to the increase in fiscal deficits of the Governments, their dependence on market borrowings to finance fiscal deficits has also increased over the years (Table 1-5). During the year 1990-91, the state governments and the central government financed nearly 14% and 18%, respectively, of their fiscal deficit by market borrowing. In percentage terms, dependence of the state governments on market borrowing did not increase much during the decade as it ranged between 13.8% and 32.1%. In 2003-04, the state and the central government market borrowings financed 32.1% and 64.9% of the fiscal deficit respectively.

Households

According to the RBI data, household sector accounted for 85.6% of gross domestic savings during 2002-03. They invested 41.5% of financial savings in deposits, 29.8% in insurance/ provident funds, 14.3% on small savings, and 5.9% in securities (out of which the investment in Gilts has been 4.3%), including government securities and units of mutual funds during 2002-03 (Table 1-7). Thus the fixed income bearing instruments are the most preferred assets of the household sector.

Table 1-7: Savings of Household Sector in Financial Assets

(In per cent)

Financial Assets	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 (P)
Currency	10.6	12.0	8.2	12.2	10.9	13.3	8.6	7.4	10.4	8.6	6.4	9.5	8.5
Fixed Income Investments	74.9	65.1	74.6	73.9	77.0	79.1	84.5	88.0	85.3	84.2	89.4	82.4	85.6
Deposits	33.3	28.9	42.5	42.6	45.5	42.5	48.1	46.6	39.2	39.2	44.3	37.9	41.5
Insurance/ Provident/ Pension Funds	28.4	28.6	27.2	25.4	22.5	29.2	29.4	30.1	33.3	34.0	33.5	33.4	29.8
Small Savings	13.2	7.6	4.9	5.9	9.0	7.4	7.0	11.3	12.8	11	11.6	11.1	14.3
Securities Market	14.4	22.9	17.2	14.0	12.1	7.7	6.9	4.5	4.2	7.3	4.3	8.0	5.9
Mutual Funds	9.1	16.4	8.6	5.5	3.8	0.5	2.7	1.4	1.9	4.9	1.3	1.7	1.3
Government Securities	0.2	-0.4	0	0.4	0.1	0.4	0.4	1.6	0.6	0.9	1.6	5.7	4.3
Other Securities	5.1	6.9	8.6	8.1	8.2	6.8	3.8	1.5	1.7	1.5	1.4	0.6	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: RBI Annual Report

P: Provisional Figures.

Investor Population and Perception

SEBI in association with National Council of Applied Economic Research (NCAER) conducted a Survey of Indian Investors in 1998-99 and then followed it up in 2000-01. The survey of 2000-01 was based on a sample of 288,081 geographically dispersed rural and urban areas. The findings of this survey were released in September 2003. The survey estimated that a total of 13.1 million or 7.4 per cent of all Indian households totaling 21 million individuals directly invested in equity shares or debentures or both during 2000-01. The other findings are as listed below:

1. The number of debenture owning households and individual debenture holders far exceeds household and individual equity investors. Of the total 13.1 million investor households, 9.6 million households owned bonds or debentures, whereas only 6.5 million investor households owned equity shares.
2. The percentage of households investing in equity or debentures is more in urban areas than in rural areas. This divergence is more in case of equities compared to debentures.

Of the 51 million urban households, 7.8 million households representing more than 12 million urban individual investors owned equity shares or debentures or both. Whereas, of the 125 million rural households, only 5.3 million households representing more than 8 million individual investors shows a definite migration of investors from equity market to bond market during the period between the two surveys.

3. The survey results also clearly reveal that number of non-investor households have increased from about 156 million in 1998-99 to nearly 164 million in 2001-02 constituting nearly 92.6 per cent of all households.

4. It was also observed that the investor population and town size are directly proportional. The largest city with more than 50 lakh population accounted for about 17 per cent of investor households and the next higher segment, more than 31 per cent investor households were in towns with population between 10 and 50 lakh.

Primary Market

An aggregate of Rs. 2,676,600 million were raised by the government and corporate sector during 2003-04 as against Rs. 2,572,201 million during the preceding year. Government raised about two third of the total resources, with central government alone raising nearly Rs. 1,476,360 million.

Corporate Securities

The average annual capital mobilisation from the primary market has grown manifold since the last two-three decades. It received a further boost during the first half of 1990s with the capital raised by non-government public companies rising sharply from Rs. 43,120 million in 1990-91 to Rs. 264,170 million in 1994-95. Thereafter, there has been a decline due to conditions prevailing in the secondary market. However, the year 2003-04 took a turnaround in its performance as compared to the previous year by mobilising Rs. 32,100 million. The capital raised, which used to be less than 1% of gross domestic saving (GDS) in the 1970s increased to about 13% in 1992-93 but thereafter witnessed declines. Though there has been a considerable increase in the amount mobilised in 2003-04, when seen as a percentage of GDS, it is 1.20% (Table 1-8). Data in Table 1-9 shows that there is a high preference for raising resources in the primary market through private placement route. Private placements accounted for 89% of total resources mobilised through domestic issues by corporate sector during 2003-04.

As may be seen from the Table 1-9, Indian market is getting integrated with the global market, though in a limited way through Euro Issues. Since they were permitted access in 1992, Indian companies have raised about Rs. 30,980 million through American Depository Receipts (ADRs)/Global Depository Receipts (GDRs).

FIIs have invested heavily in Indian market in 2003-04. They had net cumulative investments of US$ 25.75 billion as at end of March 2004. There were 540 FIIs registered with SEBI as of end March 2004.

It appears that more and more people prefer mutual funds (MFs) as their investment vehicle. This change in investor behavior is induced by the evolution of a regulatory framework for MFs, tax concessions offered by Government and preference of investors for passive investing. Starting with an asset base of Rs. 250 million in 1964, the total assets under management at the end of March 2004 has risen to Rs. 1,396,160 million. During the last one decade, the resources mobilized by the MFs are increased from Rs. 112,440 million in 1993-94 to Rs. 476,840 million in 2003-04.

Table 1-8: Resources Mobilised through Public Issues

(Amount in Rs. million)

Year	Resources raised by non-government companies	% of GDS	% of disbursements by FIs	Mobilisation by mutual funds
1990-91	43,120	3.32	33.66	750,800
1991-92	61,930	4.38	38.08	112,530
1992-93	198,030	12.76	85.54	130,210
1993-94	193,300	9.98	74.85	112,430
1994-95	264,170	10.48	78.69	112,750
1995-96	160,750	5.34	41.59	–583,30
1996-97	104,100	3.28	24.40	–203,70
1997-98	31,380	0.84	5.85	40,640
1998-99	50,130	1.27	8.59	36,110
1999-00	51,530	1.11	7.51	199,532
2000-01	49,490	1.01	6.89	111,350
2001-02	56,924	1.17	10.18	71,370
2002-03	18,777	0.74	18.37	45,830
2003-04	32,100	1.20	15.08	476,840

Government Securities

The primary issues of the Central Government have increased manifold during the decade of 1990s from Rs. 89,890 million in 1990-91 to Rs. 1,476,360 million in 2003-04 (Table 1-9). The issues by state governments have also increased over this period from Rs. 25,690 million to Rs. 505,210 million. The Central Government mobilised Rs. 1,215,000 million through issue of dated securities and Rs. 261,360 million through issue of T-bills. After meeting repayment liabilities of Rs. 326,930 million for dated securities, and redemption of T-bills of Rs. 261,260 million, net market borrowing of Central Government amounted to Rs. 888,160 million for the year 2003-04. The State Governments collectively raised Rs. 505,210 million during 2003-04 as against Rs. 308,530 million in the preceding year. The net borrowings of State Governments in 2003-04 amounted to Rs. 463,760 million.

Along with growth of the market, the investor base has also widened. In addition to banks and insurance companies, corporates and individual investors are also investing in government securities. Due to the soft interest rate policy pursued by the RBI, the coupon rates offered on government borrowings have fallen sharply. The weighted average cost of its borrowing have declined to 5.71% in 2003-04. The maturity structure of government debt is also changing. About 77% of primary issues were raised through securities with maturities above 5 years and up to 10 years. As a result the weighted average maturity of dated securities increased to 14.94 years in 2003-04.

Table 1-9: Resource Mobilisation from the Primary Market

(Rs. mn.)

Issues	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
Corporate Securities	142,190	163,660	235,370	444,980	480,840	366,890	371,470	421,250	601,920	724,500	783,956	744,032	752,411	695,030
Domestic Issues	142,190	163,660	232,860	370,440	419,740	361,930	338,720	377,380	590,440	689,630	741,986	720,612	718,147	664,050
Non-Govt. Public Companies	43,120	61,930	198,030	193,300	264,170	160,750	104,100	31,380	50,130	51,530	48,900	56,920	18,777	32,100
PSU Bonds	56,630	57,100	10,620	55,860	30,700	22,920	33,940	29,820	–	–	–	–	–	–
Govt. Companies	–	–	4,300	8,190	8,880	10,000	6,500	430	–	–	–	3,500	–	1,000
Banks & FIs	–	–	3,560	38,430	4,250	34,650	43,520	14,760	43,520	25,510	14,720	10,700	29,890	38,800
Private Placement	42,440	44,630	16,350	74,660	111,740	133,610	150,660	300,990	496,790	612,590	678,360	649,500	669,480	592,150
Euro Issues	–	–	7,020	78,980	67,430	12,970	55,940	40,090	11,480	34,870	41,970	23,420	34,264	30,980
Government Securities	115,580	122,840	176,900	545,330	432,310	467,830	426,880	673,860	1,060,670	1,133,360	1,284,830	1,525,080	1,819,790	1,981,570
Central Government	89,890	89,190	138,850	503,880	381,080	405,090	361,520	596,370	939,530	996,300	1,151,830	1,338,010	1,511,260	1,476,360
State Governments	25,690	33,640	38,050	41,450	51,230	62,740	65,360	77,490	121,140	137,060	133,000	187,070	308,530	505,210
Total	257,770	286,500	412,270	990,310	913,150	834,720	798,350	1,095,110	1,662,590	1,857,860	2,068,786	2,269,112	2,572,201	2,676,600

Source: RBI.

Table 1-10: Secondary Market - Selected Indicators

(Amount in Rs. mn.)

At the End of Financial Year	Capital Market Segment of Stock Exchanges								Turnover of Non-Repo Govt. Securities		Turnover of Derivatives Segment of Exchanges
	No. of Brokers	No. of Listed Companies	S&P CNX Nifty	Sensex	Market Capitalisation	Market Capitalisation Ratio (%)	Turnover	Turnover Ratio (%)	On WDM Segment of NSE	On SGL	
1990-91	–	6,229	366.45	1167.97	1,102,790	20.6	–	–	–	–	–
1991-92	–	6,480	1261.65	4285.00	3,541,060	57.4	–	–	–	–	–
1992-93	–	6,925	660.51	2280.52	2,287,800	32.4	–	–	–	–	–
1993-94	–	7,811	1177.11	3778.99	4,000,770	45.6	2,037,030	50.9	–	–	–
1994-95	6,711	9,077	990.24	3260.96	4,733,490	45.6	1,629,050	34.4	–	–	–
1995-96	8,476	9,100	985.30	3366.61	5,722,570	47.0	2,273,680	39.7	92,433	295,300	–
1996-97	8,867	9,890	968.85	3360.89	4,883,320	34.6	6,461,160	132.3	381,023	939,210	–
1997-98	9,005	9,833	1116.65	3892.75	5,898,160	37.7	9,086,810	154.1	975,152	1,610,900	–
1998-99	9,069	9,877	1078.05	3739.96	5,740,640	34.1	10,233,820	178.3	904,158	1,875,310	–
1999-00	9,192	9,871	1528.45	5001.28	11,926,300	84.7	20,670,310	173.3	2,915,915	4,564,910	–
2000-01	9,782	9,954	1148.20	3604.38	7,688,630	54.5	28,809,900	374.7	4,124,958	5,721,456	40,180
2001-02	9,687	9,644	1129.55	3469.35	7,492,480	36.4	8,958,180	119.6	9,269,955	12,119,658	1,038,480
2002-03	9,519	9,413	978.20	3048.72	6,319,212	28.5	9,689,093	153.3	10,305,497	13,923,834	4,423,333
2003-04	9,368	–	1771.90	5590.60	13,187,953	52.3	16,204,977	122.9	12,741,190	17,013,632	21,422,690

Note: Turnover figures for the respective year. – Not Available.
Source: SEBI & NSE

Secondary Market

Corporate Securities

There are 23 exchanges in the country, which offer screen based trading system. The trading system is connected using the VSAT technology from over 357 cities. There were 9,368 trading members registered with SEBI as at end March 2004 (Table 1-10).

The market capitalization has grown over the period indicating more companies using the trading platform of the stock exchange. The all India market capitalization is estimated at Rs. 13,187,953 million at the end of March 2004. The market capitalization ratio defined as the value of listed stocks divided by GDP is used as a measure of stock market size. It is of economic significance since market is positively correlated with the ability to mobilize capital and diversify risk. It increased sharply to 52.3% in 2003-04 against 28.5% in the previous year.

The trading volumes on exchanges have been witnessing phenomenal growth over the past decade. The trading volume, which peaked at Rs. 28,809,900 million in 2000-01, fell substantially to Rs. 9,689,093 million in 2002-03. However, the year 2003-04 saw a turnaround in the total trading volumes on the exchanges. It registered a volume of Rs. 16,204,977 million. The turnover ratio, which reflects the volume of trading in relation to the size of the market, has been increasing by leaps and bounds after the advent of screen based trading system by the NSE. The turnover ratio for the year 2003-04 accounted at 122.9%.

The relative importance of various stock exchanges in the market has undergone dramatic change during this decade. The increase in turnover took place mostly at the big exchanges. The NSE yet again registered as the market leader with more 85% of total turnover (volumes on all segments) in 2003-04. Top 5 stock exchanges accounted for 99.88% of turnover, while the rest 18 exchange for less than 0.12% during 2003-04 (Table 1-11). About ten exchanges reported nil trading volume during the year.

Table 1-11: Growth and Distribution of Turnover on Stock Exchanges

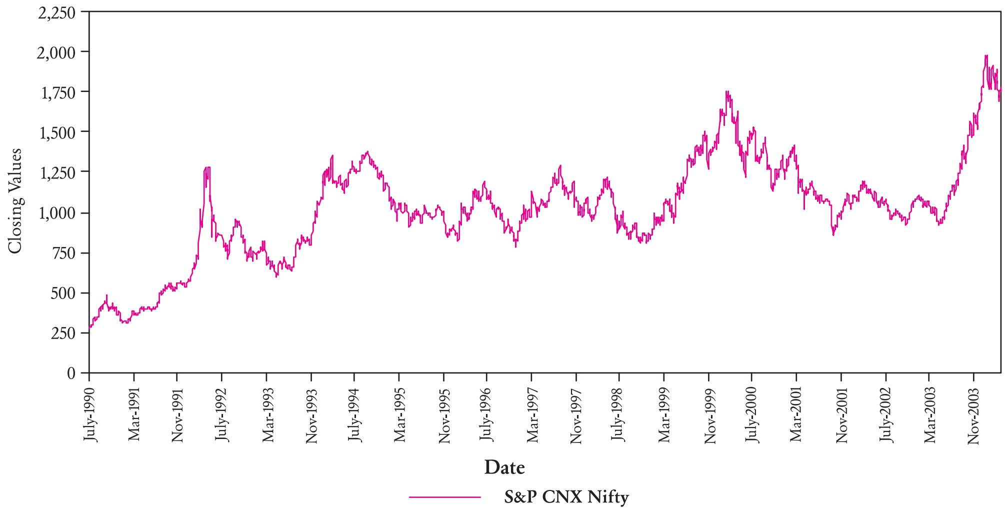
(Rs. mn.)

Stock Exchanges		1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1.	NSE	85,090	800,090	3,367,820	4,811,970	5,198,520	11,432,680	17,704,580	15,622,830	21,265,445	45,462,793
2.	Mumbai	677,480	500,640	1,242,840	2,073,830	3,119,990	6,850,282	10,016,190	3,093,156	3,165,516	5,146,730
3.	Calcutta	528,720	621,280	1,056,640	1,787,780	1,717,804	3,571,655	3,550,354	270,747	65,399	19,275
4.	Delhi	90,827	100,760	486,310	678,400	517,593	932,889	838,711	58,280	111	34
5.	Ahmedabad	56,508	87,860	205,330	307,710	297,342	375,656	540,352	148,435	154,586	45,445
6.	Uttar Pradesh	78,230	23,730	160,700	153,900	186,267	240,478	247,467	252,373	147,634	117,510
7.	Ludhiana	24,880	48,490	52,740	83,150	59,779	77,405	97,322	8,566	–	–
8.	Pune	36,720	70,710	99,030	86,240	74,528	60,868	61,705	11,710	18	–
9.	Bangalore	7,120	8,900	43,980	86,360	67,790	111,474	60,328	703	–	1
10.	Hyderabad	13,752	12,850	4,800	18,600	12,759	12,365	9,778	413	46	20
11.	ICSE	–	–	–	–	7	5,452	2,331	554	648	1
12.	Cochin	5,970	18,030	14,010	17,830	7,730	–	1,866	–	–	–
13.	OCTEI	3,650	2,180	2,210	1,250	1,422	35,879	1,259	38	1	158
14.	Madras	30,327		23,150	12,280	3,696	2,502	1,092	241	–	1,009
15.	Madhya Pradesh	1,182	2,040	120	10	9	97	24	235	–	–
16.	Magadh	7,968	16,290	27,550	3,230	–	80	16	–	5	1
17.	Vadodara	16,210	12,590	42,680	45,760	17,491	1,593	9	101	25	1
18.	Gauhati	2,853	6,190	4,840	200	302	–	–	1	1	–
19.	Bhubaneshwar	1,434	2,260	2,310	2,020	770	701	–	–	–	–
20.	Coimbatore	13,095	25,030	23,980	21,360	3,947	388	–	266	–	–
21.	Jaipur	8,786	10,470	15,190	4,310	648	21	–	–	–	–
22.	Mangalore	615	390	3,730	3,080	112	1	–	–	–	–
23.	SKSE	5,447	5,640	3,980	170	–	–	–	–	–	–
	Total	1,696,864	2,376,420	6,883,940	10,199,440	11,288,506	23,712,466	33,133,385	19,468,650	24,799,434	50,792,977

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

The movement of the S&P CNX Nifty, the most widely used indicator of the market, is presented in Chart 1-1. The index movement have been responding to changes in the government's economic policies, the increase in FIIs inflows, etc. However, the year 2003-04 witnessed a favorable movement in the Nifty, wherein it registered its all time high in January 2004 of 2014.65. The point-to-point return of Nifty was 80.14% for 2003-04.

Chart 1-1: Movement of S&P CNX Nifty



Government Securities

The trading in government securities exceeded the combined trading in equity segments of all the exchanges in the country during 2003-04. The aggregate trading in central and state government dated securities, including treasury bills, increased by manifold over a period of time. During 2003-04 it reached a level of Rs. 26,792,090 million. The share of WDM segment of NSE in total turnover for government securities decreased marginally from 52% in 2002-03 to 47.6% in 2003-04. However, the share of WDM segment of NSE in the total of Non-repo government securities increased marginally from 74.01% in 2002-03 to 74.89% in 2003-04 (Table 1-10).

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 S&P CNX Nifty Index and BSE-30 (Sensex) Index. This was followed by approval for trading in options based on these two indices and options on individual securities and also futures on interest rates derivative instruments (*91-day Notional T-Bills and 10-year Notional 6% coupon bearing as well as zero coupon bonds*). Now, there are futures and options based on benchmark index S&P CNX Nifty and CNX IT Index as well as options and futures on single stocks (51 stocks).

The total exchange traded derivatives witnessed a value of Rs. 21,422,690 million during 2003-04 as against Rs. 4,423,333 million during the preceding year. While NSE accounted for about 99.5% of total turnover, BSE accounted for less than 1% in 2003-04. NSE has created a niche for itself in terms of derivatives trading in the global market.

Regulatory Framework

The four main legislations governing the securities market are (a) the SEBI Act, 1992 (b) the Companies Act, 1956 (c) the Securities Contracts (Regulation) Act, 1956, and (d) the Depositories Act, 1996. A brief about these legislations are as given below:

- *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 issuing capital and all intermediaries and persons associated with securities market. It can conduct enquiries, audits and inspection of all concerned participants and adjudicate offences under this Act. It has powers to register and regulate all the market intermediaries. Further it can also penalize them in case of violations of the provisions of the Act, Rules and Regulations made thereunder. 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 the securities trading including the running of stock exchanges with an aim to prevent undesirable transactions in securities. It gives the Central Government regulatory jurisdiction over (a) stock exchanges through a process of recognition and continued supervision, (b) contracts in securities, and (c) listing of securities on stock exchanges. As a condition of recognition, a stock exchange complies with the requirements prescribed by the Central Government. The stock exchanges frame their own listing regulations in consonance with the minimum listing criteria set out in the Rules.

- *Depositories Act, 1996:* The Depositories Act, 1996 provides for the establishment of depositories for securities to ensure transferability of securities with speed, accuracy and security. For this, these provisions have been made: (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 moving the securities from persons to persons. 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 standards of disclosure in the public issues, 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.

Rules, Regulations & Regulators

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

The regulator has to ensure 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 while protecting the interest of investors.

The responsibility for regulating the securities market is shared jointly by Department of Economic Affairs (DEA), Department of Company Affairs (DCA), Reserve Bank of India (RBI) and SEBI. The activities of all these agencies are coordinated by a High Level Committee on Capital Markets.

Most of the powers under the SCRA are exercisable by DEA while a few others by SEBI and some are concurrently by them. The regulation 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 with the RBI. The SEBI Act and the Depositories Act are mostly administered by SEBI. While the rules under the securities laws are framed by government, regulations are framed 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 of market participants with their own rules as well as with the rules relevant for them under the securities laws.

Reforms in Indian Securities Markets

Corporate Securities Market

During the last decade, there have been substantial regulatory, structural, institutional and operational changes in the securities industry. These have been carried out with the objective of improving market efficiency, enhancing transparency, preventing unfair trade practices and bringing the Indian market up to international standards. The following paragraphs list the principal reform measures undertaken in the last decade.

Establishment of SEBI: The Securities and Exchange Board of India (SEBI) was set up as an administrative body in April 1988. It was given statutory status on November 1992 by promulgation of the SEBI Ordinance. The objective of setting up SEBI is to protect the interest of investors in securities and to promote the development and to regulate the security market. Its regulatory jurisdiction extends over corporates in the issuance of capital and transfer of securities, in addition to all the intermediaries and persons associated with securities market. The market participants are also required to appoint a compliance officer who is responsible for monitoring compliance with all the securities laws and for redressal of investor grievances. The courts have upheld the powers of SEBI to impose monetary penalties and to levy fees from market intermediaries. In a recent amendment to the SEBI Act, the regulator has also been given search and seizure powers.

DIP Guidelines: With the repeal of the Capital Issues (Control) Act, 1947 in May 1992, Government's control over issue of capital, pricing of the issues, fixing of premia and rates of interest on debentures etc. ceased. Thereafter, the market has been allowed to allocate resources among the competing uses. In the interest of investors, SEBI issued the Disclosure and Investor Protection (DIP) guidelines. These guidelines contain a slew of requirements for issuers/ intermediaries with a broad intention to ensure that all concerned observe high standards of integrity and fair dealing. The guidelines also aim to secure fuller disclosure of relevant information about the issuer and the nature of the securities to be issued. This enables the investors to take informed decisions. For example, issuers are required to disclose any material 'risk factors' and give justification for pricing in their prospectus. The guidelines cast a responsibility on the lead managers to issue a due diligence certificate, stating that they have examined the prospectus and that it brings out all the facts and does not contain anything wrong or misleading. Issuers are now required to comply with the guidelines and then access the market. The companies can access the market only if they fulfill minimum eligibility norms in terms of their track record of distributable profits and net worth.

Screen Based Trading: Prior to 1990s, the trading on stock exchanges in India used to take place through an open outcry system. This system did not allow immediate matching or recording of trades. This was time consuming and imposed limits on trading. In order to provide efficiency, liquidity and transparency, NSE introduced a nation-wide on-line fully-automated screen based trading system (SBTS). In this system a member can punch into the computer quantities of securities and the prices at which he desires to transact and the transaction is executed as soon as it finds a matching sale or buy order from a counter party. SBTS electronically matches orders on price/time priority and hence it cuts down on time and cost. 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. Given the efficiency and cost effectiveness delivered by the NSE's trading system, it became the leading stock exchange in the country in its very first year of operation. This forced the other stock exchanges to adopt SBTS. As a result, open outcry system has disappeared from India.

Trading Cycle: Initially, the trading cycle varied from 14 days for specified securities to 30 days for others and settlement took another fortnight. Often this cycle was not adhered to and on several occasions led to defaults and risks in settlement. In order to reduce large open positions, the trading cycle was reduced over a period of time to a week. The exchanges, however, continued to have different weekly trading cycles, which enabled shifting of positions from one exchange to another. Rolling settlement on T+5 basis was introduced in respect of specified scrips reducing the trading cycle to one day. It was made mandatory for all exchanges to follow a uniform weekly trading cycle in respect of scrips not under rolling settlement. All scrips moved to rolling settlement from December 2001. The settlement period has been reduced progressively from T+5 to T+3 days. Currently T+2 day settlement cycle is being followed.

Derivatives Trading: To assist market participants to manage risks better through hedging, speculation and arbitrage, SC(R)A was amended in 1995 to lift the ban on options in securities. However, trading in derivatives took off much later after the suitable legal and regulatory framework was out in place. Derivatives trading commenced in June 2000 in the Indian securities market on NSE and BSE only. The market presently offers index futures and index options on three indices and stock options and stock futures on individual stocks (presently 51 stocks on NSE) and futures in interest rate products like notional 91-day T-Bills and notional 10-year bonds.

Demutualisation: Historically, brokers owned, controlled and managed the stock exchanges. In case of disputes, integrity of the exchange suffered. Therefore regulators focused on reducing the dominance of trading members in the management of stock exchanges. They advised them to reconstitute their governing councils to provide for at least 50% non-broker representation. However, this did not materially alter the situation. In face of extreme volatility in the securities market in 2000, the Government proposed to corporatise the stock exchanges by which ownership, management and trading membership would be segregated from one another. A few exchanges have already initiated demutualisation process. NSE, however, adopted a pure demutualised governance structure where ownership, management and trading are with three different sets of people. This completely eliminates any conflict of interest and helped NSE to aggressively pursue policies.

Depositories Act: The earlier settlement system gave rise to settlement risk. This was due to the time taken for settlement and due to the physical movement of paper. Further, the transfer of shares in favour of the purchaser by the company also consumed considerable amount of time. To obviate these problems, the Depositories Act, 1996 was passed to provide for the establishment of depositories in securities. The objective was of ensuring free transferability of securities with speed and accuracy. This act brought in changes by (a) making securities of public limited companies freely transferable subject to certain exceptions; (b) dematerialising of securities in the depository mode; and (c) providing for maintenance of ownership records in a book entry form. In order to streamline both the stages of the settlement process, the Act envisages transfer of ownership of securities electronically by book entry without making the securities move from person to person. In order to promote dematerialisation, the regulator has been promoting settlement in demat form in a phased manner in an ever-increasing number of securities. The stamp duty on transfer of demat securities has been waived. There are two depositories in India, *viz.* NSDL and CDSL. They have been set up to provide instantaneous electronic transfer of securities. At the end of March 2004, the number of companies connected to NSDL and CDSL were 5,212 and 4,720, respectively. The number of dematerialised securities increased to 97.7 billion at the end of March 2004 from 76.9 billion as of end March 2003. As on the same date, the value of dematerialsied securities was Rs. 10,701 billion and the number of investor accounts was 5,832,552. All actively traded scrips are held, traded and settled in demat form. Demat settlement accounts for over 99% of turnover settled by delivery. This has almost eliminated the bad deliveries and associated problems.

To prevent physical certificates from sneaking into circulation, it has been mandatory that all new securities issued should be compulsorily traded in dematerialised form. The admission to a depository for dematerialisation of securities has been made a prerequisite for making a public or rights issue or an offer for sale. It has also been made compulsory for public listed companies making IPO of any security for Rs. 10 crore or more only in dematerialised form.

Risk Management: With a view to avoid any kind of market failures, the regulator/ exchanges have developed a comprehensive risk management system, which is constantly monitored and upgraded. It encompasses capital adequacy of members, adequate margin requirements, limits on exposure and turnover, indemnity insurance, on-line position monitoring and automatic disablement, etc. They also administer an efficient market surveillance system to detect and prevent price manipulations. The clearing corporation has also put in place a system which tracks online real time client level portfolio based upfront margining. Exchanges have set up trade/settlement guarantee funds for meeting shortages arising out of non-fulfillment/partial fulfillment of funds obligations by the members in a settlement. As a part of the risk management system, index based market wide circuit breakers have also been put in place.

The anonymous electronic order book ushered in by the NSE did not permit members to assess credit risk of the counter-party necessitated some innovation in this area. To address this concern, NSE had set up the first clearing corporation, *viz*. National Securities Clearing Corporation Ltd. (NSCCL), which commenced its operations in April 1996. The NSCCL assured the counterparty risk of each member and guaranteed financial settlement. NSCCL established a Settlement Guarantee Fund (SGF). The SGF provides a cushion for any residual risk and operates like a self-insurance mechanism wherein members contribute to the Fund. In event of failure of a trading member to meet his obligations, 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.

Investor Protection: The SEBI Act established SEBI with the primary objective of protecting the interests of investors in securities and empowers it to achieve this objective. SEBI specifies that the critical data should be disclosed in the specified formats regarding all the concerned market participants. The Central Government has established a fund called Investor Education and Protection Fund (IEPF) in October 2001 for the promotion of awareness amongst investors and protection of the interest of investors.

DEA, DCA, the SEBI and the stock exchanges have set up investor grievance cells for redressal of investor grievance. The exchanges maintain investor protection funds to take care of investor claims. The DCA has also set up an investor education and protection fund for the promotion of investors' awareness and protection of interest of investors. All these agencies and investor associations are organising investor education and awareness programmes. In January 2003, SEBI launched a nation-wide Securities Market Awareness Campaign that aims at educating investors about the risks associated with the market as well as the rights and obligations of investors.

Globalisation: Indian securities market is getting increasingly integrated with the rest of the world. Indian companies have been permitted to raise resources from abroad through issue of ADRs, GDRs, FCCBs and ECBs. Further, foreign companies are allowed to tap the domestic stock markets.

Indian companies are permitted to list their securities on foreign stock exchanges by sponsoring ADR/GDR issues against block shareholding. NRIs and OCBs are allowed to invest in Indian companies. FIIs have been permitted to invest in all types of securities, including government securities. The investments by FIIs enjoy full capital account convertibility. They can invest in a company under portfolio investment route upto 24% of the paid-up capital of the company. This can be increased up to the sectoral cap/statutory ceiling, as applicable. The Indian Stock Exchanges have been permitted to set up trading terminals abroad. The trading platform of Indian exchanges is now accessed through the Internet from anywhere in the world.

The two-way fungibility for ADRs/GDRs has been permitted by RBI, which meant that the investors (foreign institutional or domestic) in any company that has issued ADRs/ GDRs can freely convert the ADRs/GDRs into underlying domestic shares. They could also reconvert the domestic shares into ADRs/GDRs, depending on the direction of price change in the stock. This is expected to bring about an improvement in the liquidity in ADR/GDR market and elimination of arbitrage opportunity. This will better align ADR/GDR prices and domestic share prices of companies that have floated ADRs/GDRs.

Government Securities Market

The Government securities market has witnessed significant transformation in the 1990s. There have been major institutional and operational changes in the government securities market. In the primary market, securities are issued through the auction system at market related rates. They are issued across maturities to develop a yield curve from short to long end, which is used as a benchmark. Also, the types of bonds issued have diversified include floating rate bonds, capital index bonds, zero coupon bonds. Further, non-competitive bids are accepted from retail investors in order to widen investor base. The reforms in the secondary market include setting up a system of primary dealers, who provide with two way quotes for transactions in securities, setting up of Clearing Corporation of India as the central clearing agency wherein Delivery versus Payment system is used for settlement, and negotiated dealing screen for reporting of all the trades. Further, to facilitate retail investors to invest in Government securities, RBI permitted select entities to provide custody (Constituent SGL) accounts. Other measures include abolition of TDS on government securities and stamp duty on transfer of demat debt securities.

Market Infrastructure: As part of the ongoing efforts to build debt market infrastructure, two new systems/set-up have been made operational the Negotiated Dealing System (NDS) and the Clearing Corporation of India Limited (CCIL). NDS, interalia, facilitates screen based negotiated dealing for secondary market transactions in government securities and money market instruments, online reporting of transactions and dissemination of trade information to the market. Government Securities (including T-bills), call money, notice/ term money, repos in eligible securities, Commercial Papers and Certificate of Deposits are available for negotiated dealing through NDS among the members. Initially, the settlement of trades was carried out on individually, that is, irrespective of couterparties each trade was settled separately. Further, there was no central agency to guarantee the trades. Therefore, the CCIL was set up to facilitate settlement using the higher versions of Delivery versus Payment mechanism. It began by settling the securities on gross basis and settlement of funds on net basis. Subsequently, both the securities and funds are settled on net basis. It, also, acts as a central counterparty for clearing and settlement of government securities transactions done on NDS.

The major reforms planned include strengthening and modernising legislative framework through a Government Securities Act and switching over to order-driven screen based trading in Government securities on the stock exchanges.

Research in Securities Market

In order to deepen the understanding and to assist in policy-making, SEBI has been promoting high quality research in the Indian capital market. Its monthly bulletin carries research articles pertaining to issues in the capital market. In order to improve market efficiency further and to set international benchmarks in the securities industry, NSE administers a scheme called the NSE Research Initiative. The objective of this initiative is to foster research to better design market microstructure. The NSE Research Initiative has so far come out with 32 Working Papers.

Testing and Certification

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

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

As such, the reforms in the securities market are far from complete. At the same time, the reforms undertaken so far have aimed at improving the operational and informational efficiency in the market by enabling the participants to carry out transactions in a cost effective manner and providing them with full, relevant and accurate information in time. A number of checks and balances have been set up to protect investors, enhance their confidence and avoid systemic failure of the market. As a result of these reforms, the market design has changed drastically. Today the Indian securities market bears a look which is absolutely different from what they were 10 years ago or what they will be 10 years hence.

International Initiatives

As a result of the reforms pursued during the past decade, there have been substantial changes in the operations of the securities market, institutions and the regulatory framework. However, there is still scope for improving the system as a whole. While charting the agenda for future, it would be worthwhile to review the international initiatives in the form of standards/guidelines/ recommendations.

Principles of Securities Regulation

In February 2002, IOSCO released a new version of the *Objectives and Principles of Securities Regulation*, and a technical document titled "Assessment methodology for Recommendations for Securities Settlement Systems". These provided advice and a yardstick against which the progress made towards effective regulation would be measured. IOSCO members, including SEBI, have endorsed these principles and within their jurisdiction intend to adhere to these principles. The principles are listed below:

Regulator

1. The responsibilities of the regulator should be clear and objectively stated. This requires a clear definition of responsibilities, preferably set out by law; strong cooperation among responsible authorities through appropriate channels. In addition, there should be adequate legal protection for the regulators and their staff acting in bona fide discharge of their functions and powers. Any division of responsibility should avoid gaps and inequities in regulation.

2. The regulator should be operationally independent and accountable in the exercise of its functions and powers. Independence is enhanced by a stable source of funding for the regulator. The regulator should operate independent of sectoral interests. Nevertheless, a system of public accountability of the regulator and a system permitting the judicial review of decisions of the regulator should be in place.

3. The regulator should have adequate powers, proper resources and the capacity to perform its function and exercise its powers. The regulator should have powers of licensing, supervision, inspection, investigation and enforcement and also access to adequate funding.

4. The regulator should adopt clear and consistent regulatory processes. The regulator should have a process for consultation with the public by openly disclosing its policies. It should observe standards of procedural fairness and have regard to the cost of compliance with the regulations. It should also play an active role in the education of investors and other participants in the capital market.

5. The staff of the regulator should observe the highest professional standards, including appropriate standards of confidentiality. They should be given clear guidance on conduct relating to conflict of interest, appropriate use of information obtained in the course of duty, observance of confidentiality and secrecy provisions, observance of procedural fairness, etc.

Self-Regulation

6. The regulatory regime should make appropriate use of self-regulatory organisations (SROs) that exercise some direct oversight responsibility in their areas of competence. SROs should undertake those regulatory responsibilities to the extent of their size and complexity of the markets.

7. SROs should be subject to the oversight of the regulator and should observe standards of fairness and confidentiality while exercising powers and responsibilities. The regulator must ensure that no conflict of interest arises because of SRO's access to valuable information about market participants. The conflict may be acute when SRO is responsible both for supervision of its members and regulation of the market sector. If the powers of a SRO are inadequate to address a particular misconduct or conflict of interest, then

the regulator should take over the responsibility. SROs should also follow similar professional standards as expected of the regulator.

Enforcement of Securities Regulation

8. The regulator should have comprehensive inspection, investigation and surveillance powers. It should have the power to seek information, or to carry out inspections of business operations to ensure compliance with relevant standards.

9. The regulator should have comprehensive enforcement powers, including regulatory and investigative powers. It should be able to obtain data/information, to impose administrative sanctions and/or seek orders from court, to initiate or refer matters for criminal prosecution, to suspend trading in securities, to enter into enforceable settlements etc. It is, however, not necessary that all aspects of enforcement of securities law be given to a single body.

10. The regulatory system should ensure that an effective and credible use of inspection, investigation, surveillance and enforcement powers is made. The powers of regulator should be sufficient to ensure its effectiveness in cases of cross border misconduct. The regulator should require market intermediaries to have in place policies and procedures to prevent use of their business as a vehicle for money laundering.

Co-operation in Regulation

11. The regulator should have authority to share both public and non-public information with domestic and foreign counterparts.

12. Regulators should establish information sharing mechanisms that set out when and how they will share both public and non-public information with their domestic and foreign counterparts.

13. The regulatory system should allow for assistance to be provided to foreign regulators, who need to make inquiries in the discharge of their functions and exercise of their powers. There should be arrangements, which identifies the circumstances under which such assistance may be sought, identification of the types of information and assistance that can be provided, safeguards of confidentiality of information transmitted, and a description of permitted uses of information.

Issuers

14. There should be full, timely and accurate disclosure of financial results and other information, which may impact the investors' decisions. Disclosures should be clear, reasonably specific and timely.

15. Holders of securities in a company should be treated in a fair and equitable manner.

16. Accounting and auditing standards should be of a high and internationally acceptable quality.

Collective Investment Schemes

17. The regulatory system should set standards for the eligibility for those who wish to market or operate a collective investment scheme. The criteria may include honesty and integrity of the operator, competence to carry out the functions and duties of a scheme operator, financial capacity, internal management procedures, etc.

18. The regulatory system should provide for rules governing the legal form, structure of collective investment schemes and protection of client assets.

19. Regulation should require disclosure, which is necessary to evaluate the suitability of a collective investment scheme for a particular investor and the value of the investor's interest in the scheme.

20. Regulation should ensure that there is a proper and disclosed basis for assets valuation, the pricing and the redemption of units in a collective investment scheme.

Market Intermediaries

21. Regulation should provide for minimum entry standards for market intermediaries. It should reduce the risk to investors caused by negligent or illegal behaviour or inadequate capital. The licensing process should require a comprehensive assessment of the applicant and the licensing authority should have the power to withdraw or suspend the license. The regulator should ensure that the public has access to relevant information concerning the licensee.

22. There should be initial and on going capital and prudential requirements for market intermediaries to cover the risks that the intermediaries undertake. The regulations should provide for inspection, investigation, enforcement, discipline and revocation of license.

23. Market intermediaries should be required to comply with the standards. They should conduct their operations with the aim to protect the interest of clients by undertaking proper risk management.

24. There should be a procedure for dealing with the failure of a market intermediary in order to minimise damage and loss to investors and to contain systemic risk.

Secondary Market

25. The establishment of trading systems should be subject to regulatory authorisation and oversight. The relevant factors for authorisation could be operator's competence, admission of products to trading, admission of participants to trading, provision of trading information, etc.

26. There should be ongoing regulatory supervision of exchanges and trading systems, which should aim to ensure that the integrity is maintained through fair and equitable rules that strike an appropriate balance between the demands of different market participants. Approval of trading system should be re-examined or withdrawn by the regulator when considered necessary.

27. Regulation should promote transparency of trading.

28. Regulation should be designed to detect and deter market manipulation and other unfair trading practices. The regulation should prohibit misleading conduct, insider trading and other fraudulent or deceptive conduct which may distort price discovery system, distort prices and unfairly disadvantage investors. These may be addressed by direct surveillance, inspection, reporting, product design requirements, position limits, market halts, etc.

29. Regulation should aim to ensure the proper management of large exposures, default risk and market disruption.

30. Systems for clearing and settlement of securities should be subject to regulatory oversight. They should be designed in a fair, effective and efficient manner and reduce systemic risk.

A comparison of these principles and the regulations in the Indian Securities Market indicates that India has almost complied with all thirty principles.

Recommendations for Securities Settlement Systems

The 19 recommendations of BIS-IOSCO cover legal risk, pre-settlement risk, settlement risk, operational risk and other issues relating to securities settlement system. India's readiness vis-à-vis BIS-IOSCO principles have been discussed in detail in Chapter 5. The 19 recommendations are discussed below:

Legal risk

1. *Legal framework:* Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdictions.

Pre-settlement risk

2. *Trade confirmation:* Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). If confirmation of trades by indirect market participants (such as institutional investors) is required, then it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.

3. *Settlement cycles:* Rolling settlement should be adopted in all the securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated.

4. *Central counterparties (CCPs):* The benefits and costs of a CCP should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

5. *Securities lending:* Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions.

Settlement risk

6. *Central securities depositories (CSDs):* Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest extent possible.

7. *Delivery versus payment (DVP):* CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

8. *Timing of settlement finality:* Final settlement should occur not later than the end of the settlement day. Intraday or real-time finality should be provided where necessary to reduce risks.

9. *CSD risk control system to address participants' failures to settle:* CSDs that extend intraday credit to participants and that operate net settlement systems, should institute risk controls. To ensure that timely settlement is made even if the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.

10. *Cash settlement assets:* Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. Efforts must be taken to protect CSD members from potential losses and liquidity pressures which may arise due to faulty assets used for that purpose.

Operational risk

11. *Operational reliability:* the sources of operational risk in the clearing and settlement process should be identified and minimised through an appropriate systems of controls and procedures. Systems should be reliable and secure. Contingency plans and backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

Custody risk

12. *Protection of customers' securities:* Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.

Other issues

13. *Governance:* Governance arrangements for CSDs and CCPs should be designed to fulfill public interest requirements and to promote the objectives of owners and users.

14. *Access:* CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access.

15. *Efficiency:* While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

16. *Communication procedures and standards:* Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.

17. *Transparency:* CSDs and CCPs should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using their services.

18. *Regulation and oversight:* Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.

19. *Risks in cross-border links:* CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.

World Federation of Exchanges Trading Survey 2002

The World Federation of Exchanges conducted a survey in 2002 on trading practices at major stock exchanges. This survey was conducted by Professor Maureen O'Hara of Cornell University. The report was released in March 2003. The survey covered 42 Exchanges and focussed on 6 operational areas: trading platform, traded products, orders and order routing mechanism, execution, transparency, information.

Trading Platform: The study found that electronic systems prevail and are typically order driven. 32 Exchanges have order driven system and only 2 stock exchanges have a floor system. 14 Exchanges have introduced new trading platform in the past 12 months and 15 are planning to do so in next 12 months. About 86% of Exchanges have platforms that include stock watch or real time error alerts. About 88% of Exchanges have backup systems in place that are fully redundant.

Trading Products: The study found that 33 exchanges reported negative to flat value growth over the last year but the growth of derivatives has been stronger. The study also found a significant growth in Exchange Traded Funds.

Order and Order Routing: The study found that 12% of the Exchanges have the system that gives direct access for order routing and straight through processing is in place (55%).

Execution: The execution quality has generally improved with the electronic system in place in most of the Exchanges. The study found that 49% of exchanges offer automatic execution of small orders and 71% offer opportunities for price improvement. The time taken to process the order is typically less than a second.

Transparency and Information: The survey indicated that global markets are becoming more and more transparent. The majority of exchanges disclose substantial market information and disseminate them through a variety of ways: 90% through data feed, 74% through internet, 69% through trading system, 36% through special information system and 7% through satellite. The depths of all prices is displayed by 57% of exchanges, another 26% display depth for specific price levels and 17% allow indicative quotes to be disclosed.

Other Issues: The survey finds that 76% of the Exchanges reported operating within a self-regulatory framework. The regulatory functions are handled internally in 40% of exchanges, by a separate non-governmental entity for 14%. While Government regulator handles 21%, 38% are handled jointly with a regulatory agency.