

## PART TWO: REVIEW OF TRENDS AND OPERATIONS

The Indian securities markets witnessed significant uptrend and volatility in 2007-08. The equity markets registered gains and the benchmark indices breached historic highs on several occasions. However, since mid-January 2008, stock markets witnessed sharp corrections in tandem with the global equity markets. Resources raised by the corporates from the primary market were substantially higher indicating the continuation of investment boom in India. Mutual funds too mobilised large amount of resources during 2007-08. Sound domestic macro-economic fundamentals, private corporate profitability and active buying support from institutional investors were the major factors that dominated stock market movement during 2007-08.

### 1. PRIMARY SECURITIES MARKET

The upward trend in primary market activities continued in 2007-08. The buoyancy in the secondary market coupled with strong macro-economic fundamentals, active

institutional support led by FIIs and mutual funds encouraged large number of companies to raise resource from the primary market. Several large companies mobilised resources through public issues, rights issues and Qualified Institutions' Placement. The companies in private sector led in raising resources from primary market during 2007-08.

### I. Resource Mobilisation

During 2007-08, 124 companies accessed the primary market and raised Rs.87,029 crore through public (92) and rights issues (32) as against 124 companies which raised Rs.33,508 crore in 2006-07 (Table 2.1A). While the number of issues remained the same in both the years, the amount mobilised was more than twice in 2007-08 as compared to 2006-07. Of the total 92 public issues in 2007-08, 85 were initial public offerings (IPOs) (Rs.42,595 crore) and 7 were follow-on public offerings (FPOs) (Rs.11,916 crore). Even though the number of rights issues were

**Table 2.1A: Resource Mobilisation through Public and Rights Issues**

(Rs. crore)

Particulars	2006-07		2007-08		Percentage Share in Total Amount	
	No.	Amount (Rs.crore)	No.	Amount (Rs.crore)	2006-07	2007-08
1	2	3	4	5	6	7
<b>Public Issues</b>	85	29,797	92	54,511	88.93	62.63
<i>of which</i>						
IPOs	77	28,504	85	42,595	85.07	48.94
FPOs	8	1,293	7	11,916	3.86	13.69
<b>Rights Issues</b>	39	3,711	32	32,518	11.07	37.37
<b>Total</b>	<b>124</b>	<b>33,508</b>	<b>124</b>	<b>87,029</b>	<b>100.00</b>	<b>100.00</b>
<b>Memo Item</b>						
Offer for Sale*	6	587	7	2,152		

\* All offers for sale are initial public offers, hence are already counted under IPOs.

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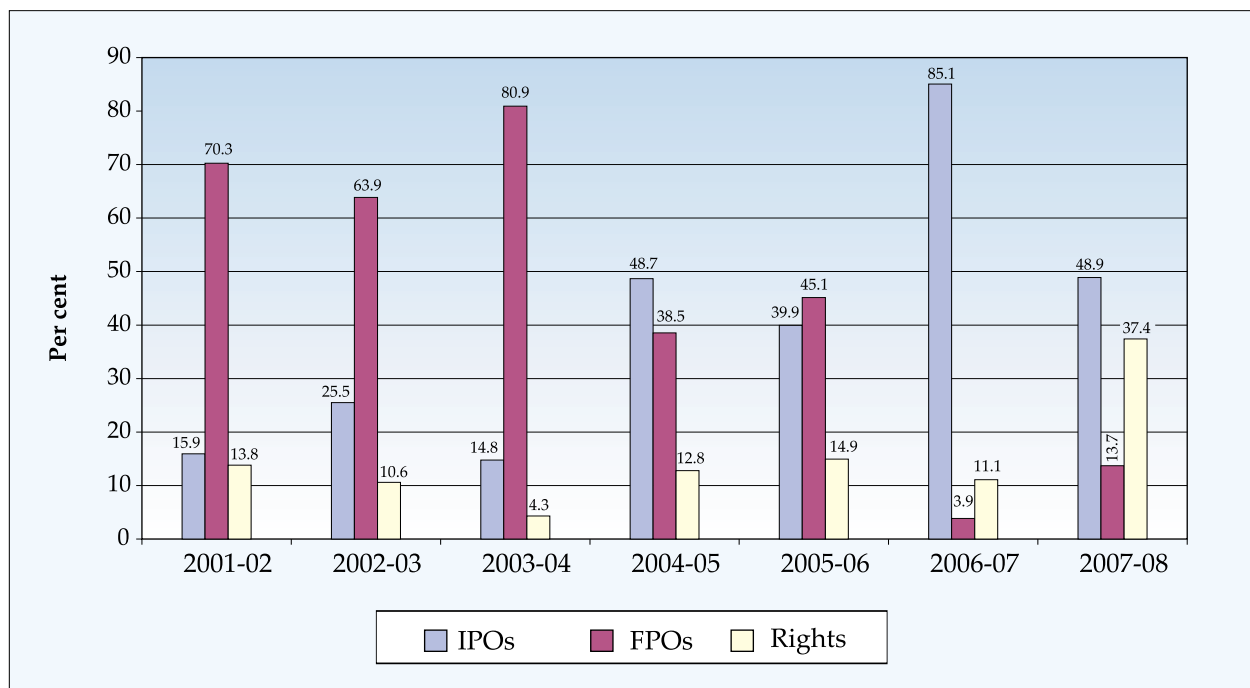
lower at 32, the amount raised increased by more than eight times from Rs.3,711 crore in 2006-07 to Rs.32,518 crore in 2007-08. The share of rights issues in the total resource mobilisation went up to 37.4 per cent in 2007-08 as compared to 11.1 per cent in 2006-07. The share of public issues in the total

resource mobilisation declined to 62.6 per cent in 2007-08 from 88.9 per cent in 2006-07 as the share of IPOs fell from 85.1 per cent in 2006-07 to 48.9 per cent in 2007-08 (Chart 2.1). Issues withdrawn during 2007-08 along with the reasons of withdrawal are provided in Table 2.1B.

**Table 2.1B: Issues Withdrawn during 2007-08**

Name of the Issuer	Type of Issue	Date of Opening of Issue	Date of Withdrawal of Issue	Reason for Withdrawal by the Company
1	2	3	4	5
IT People (India) Limited	FPO	27-08-2007	30-08-2007	Issue failed to generate adequate response
Wockhardt Hospitals Limited	IPO	31-01-2008	07-02-2008	Minimum of 90% subscription was not received
Emaar MGF Land Limited	IPO	01-02-2008	08-02-2008	Company felt that the prevailing market sentiments were adverse
SVEC Constructions Limited	IPO	04-02-2008	12-02-2008	Company felt that the prevailing market sentiments were adverse

**Chart 2.1: Share of Broad Categories of Issues in Resource Mobilisation**



The highest amount was mobilised in June 2007 (Rs.22,703 crore), followed by February 2008 (Rs.18,828 crore) and January 2008 (Rs.14,044 crore). However, the number of issues was the highest in June 2007 (15) and September 2007 (14).

Listed companies were also allowed to raise resources from institutional investors through Qualified Institutions' Placement (QIP). During 2007-08, 36 listed companies raised Rs.25,525 crore through QIP as compared to 25 companies which raised Rs.4,963 crore through QIPs in 2006-07 (Table 2.2).

## II. Sector-wise Resource Mobilisation

Sector-wise classification reveals that private sector companies were in forefront in resource mobilisation through the primary market. These companies raised Rs.67,311 crore through 120 issues in 2007-08 compared to Rs.31,728 crore through 122 issues in 2006-07 (Table 2.3). However, the share of private sector in total resource mobilisation declined

**Table 2.2.: Resource Mobilisation through Qualified Institutions' Placement**

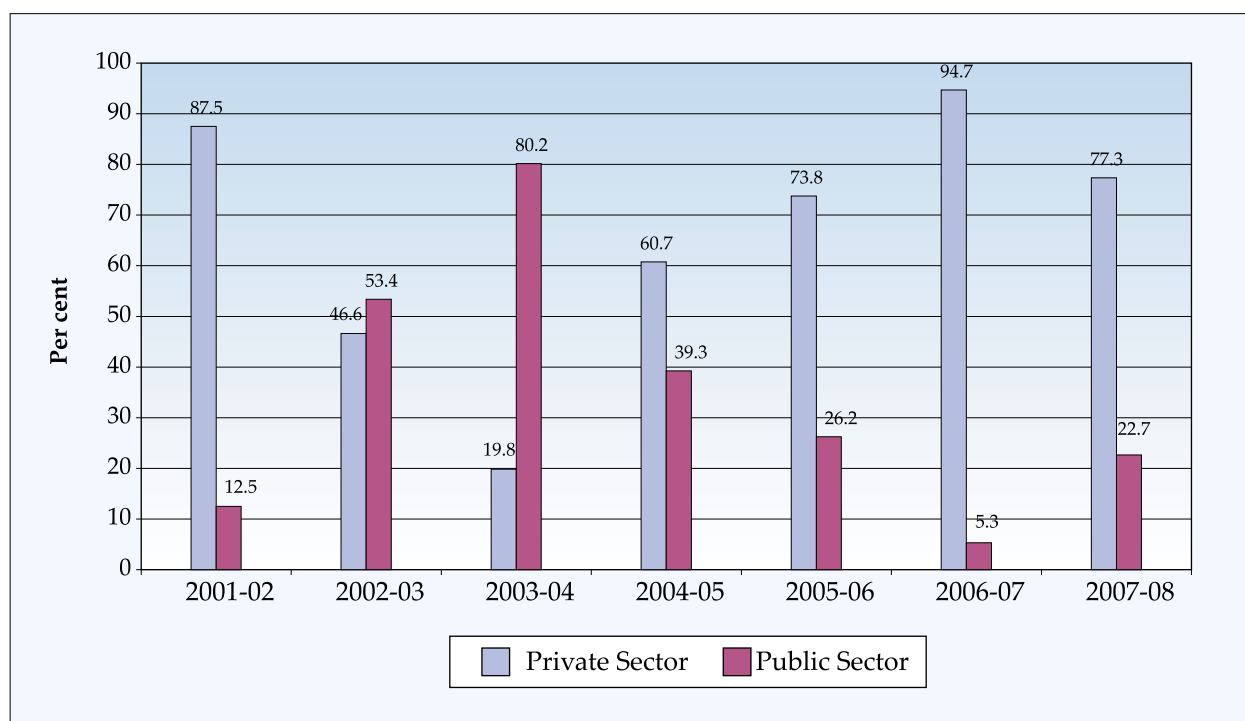
(Rs. crore)

Particulars	2006-07		2007-08	
	No.	Amount	No.	Amount
1	2	3	4	5
QIP at BSE	25	4,963	36	25,525
QIP at NSE	21	4,530	34	24,679
<b>Total</b>	<b>25</b>	<b>4,963</b>	<b>36</b>	<b>25,525</b>

Source: NSE, BSE

from 94.7 per cent in 2006-07 to 77.3 per cent during 2007-08. There were four issues from public sector companies which raised Rs.19,718 crore in 2007-08 which increased the share of public sector companies in resource mobilisation from 5.3 per cent in 2006-07 to 22.7 per cent in 2007-08 (Chart 2.2). Of the four public sector issues, two were from public sector banks and other two were those of Rural Electrification Corporation Ltd. and Bharat Earth Movers (BEM) Ltd.

**Chart 2.2: Sector-wise Resource Mobilisation**



**Table 2.3: Sector-wise Resource Mobilisation**

Sector	2006-07		2007-08		Percentage Share in the Total Amount	
	No.	Amount (Rs.crore)	No.	Amount (Rs.crore)	2006-07	2007-08
1	2	3	4	5	6	7
Private	122	31,728	120	67,311	94.69	77.34
Public	2	1,779	4	19,718	5.31	22.66
<b>Total</b>	<b>124</b>	<b>33,508</b>	<b>124</b>	<b>87,029</b>	<b>100.00</b>	<b>100.00</b>

### III. Size-wise Resource Mobilisation

About 87.8 per cent of resource mobilisation was through issues of above Rs.500 crore (Table 2.4). The number of issues above Rs.500 crore category doubled from 11 in 2006-07 to 24 in 2007-08.

The average size of the issue was Rs.702 crore in 2007-08 as against Rs.270 crore in 2006-07. The mean issue-size of the public issues increased from Rs.351 crore in 2006-07 to Rs.593 crore in 2007-08. The larger size of the issues reflected high capital expenditure plans of companies in view of strong economic and industrial expansion.

There were 31 mega issues in 2007-08 (Table 2.5). The largest issue during 2007-08 was the rights issue of State Bank of India (Rs.16,736 crore). The other large issues include Reliance Power Ltd. (Rs.11,563 crore) and ICICI Bank Ltd.(Rs.10,063 crore) which were the largest IPO and FPO, respectively during the year. Of the total 31 mega issues, 19 were IPOs and nine were rights issues, and the three were FPOs. Instrument-wise, 28 mega issues were equity issues, and one each was of debt, CCCPS and NCD issue.

**Table 2.4: Size-wise Resource Mobilisation**

Issue Size	2006-07		2007-08		Percentage Share in the Total Amount	
	No.	Amount (Rs.crore)	No.	Amount (Rs.crore)	2006-07	2007-08
1	2	3	4	5	6	7
< Rs.5 crore	3	10	4	16	0.03	0.02
≥ Rs.5 crore & < Rs.10 crore	6	45	1	6	0.14	0.01
≥ Rs.10 crore & < Rs.50 crore	40	1,129	33	920	3.37	1.06
≥ Rs.50 crore & < Rs.100 crore	31	2,386	25	1,669	7.12	1.92
≥ Rs.100 crore & < Rs.500 crore	33	7,537	37	7,999	22.49	9.19
≥ Rs.500 crore	11	22,400	24	76,420	66.85	87.81
<b>Total</b>	<b>124</b>	<b>33,508</b>	<b>124</b>	<b>87,029</b>	<b>100.00</b>	<b>100.00</b>

Table 2.5: Mega Issues in 2007-08\*

Name of the Entity	Type of Issue	Type of Instrument	Date of Opening of Issue	Offer Size (Rs. crore)	Percentage Share in the Grand Total Amount
1	2	3	4	5	6
Fortis Healthcare Ltd.	IPO (Fresh)	Equity	16-Apr-07	497	0.57
DLF Ltd.	IPO (Fresh)	Equity	9-Jun-07	9,188	10.56
ICICI Bank Ltd.	FPO	Equity	19-Jun-07	10,063	11.56
Spice Communication Ltd.	IPO (Fresh)	Equity	25-Jun-07	520	0.60
Bharat Earth Movers Ltd.	FPO	Equity	27-Jun-07	527	0.61
Housing Development & Infrastructure Ltd.	IPO (Fresh)	Equity	28-Jun-07	1,708	1.96
Omaxe Systems Ltd.	IPO (Fresh)	Equity	17-Jul-07	552	0.63
IVR-Prime Urban Developers Ltd.	IPO (Fresh)	Equity	23-Jul-07	778	0.89
Central Bank of India	IPO (Fresh)	Equity	24-Jul-07	816	0.94
Puravankara Projects Ltd.	IPO (Fresh)	Equity	31-Jul-07	869	1.00
GTL Infrastructure Ltd.	Rights	Equity	16-Aug-07	336	0.39
Power Grid Corporation of India Ltd.	IPO (Fresh+ OFS)	Equity	10-Sep-07	2,984	3.43
ICICI Bank Ltd.	FPO	Debt	29-Sep-07	1,000	1.15
Mundra Port & Special Economic Zone Ltd.	IPO (Fresh)	Equity	1-Nov-07	1,771	2.03
Edelweiss Capital Ltd.	IPO (Fresh)	Equity	15-Nov-07	692	0.80
Jyothy Laboratories Ltd.	IPO (Fresh)	Equity	22-Nov-07	306	0.35
Tata Steel Ltd.	Rights	Equity	22-Nov-07	3,654	4.20
Tata Steel Ltd.	Rights	CCCPS	22-Nov-07	5,481	6.30
BGR Energy Systems Ltd.	IPO (Fresh)	Equity	5-Dec-07	439	0.50
Hindustan Oil Exploration Company Ltd.	Rights	Equity	7-Dec-07	611	0.70
Brigade Enterprises Ltd.	IPO (Fresh)	Equity	10-Dec-07	746	0.86
The Federal Bank Ltd.	Rights	Equity	17-Dec-07	2,141	2.46
Future Capital Holdings Ltd.	IPO (Fresh)	Equity	11-Jan-08	491	0.56
Reliance Power Ltd.	IPO (Fresh)	Equity	15-Jan-08	11,563	13.29
Onmobile Global Ltd.	IPO (Fresh+ OFS)	Equity	24-Jan-08	480	0.55
IRB Infrastructure Developers Ltd.	IPO (Fresh)	Equity	31-Jan-08	945	1.09
State Bank of India	Rights (Fast Track)	Equity	18-Feb-08	16,736	19.23
Rural Electrification Corporation Ltd.	IPO (Fresh+ OFS)	Equity	19-Feb-08	1,639	1.88
Godrej Consumer Products Ltd.	Rights	Equity	31-Mar-08	397	0.46
The Indian Hotels Company Ltd.	Rights	Equity	14-Mar-08	844	0.97
The Indian Hotels Company Ltd.	Rights	NCD	15-Mar-08	603	0.69
<b>Total (Mega Issues)</b>				<b>79,375</b>	<b>91.21</b>
<b>Grand Total Amount Mobilised</b>				<b>87,029</b>	<b>100.00</b>

\*An issue of Rs.300 crore and above is referred as Mega Issue.

#### IV. Industry-wise Resource Mobilisation

Industry-wise classification reveals that banks and financial institutions topped resource mobilisation (Table 2.6). Their share was 35.6 per cent followed by cement and construction including real estate (21.7 per cent) and the power (15.8 per cent). However, cement and construction had the highest number of 27 issues during 2007-08. The accelerated growth of the economy has paved the way for large number of infrastructure companies viz., cement and construction and power, to tap the capital market for their fund requirements for various projects.

#### 2. SECONDARY SECURITIES MARKET

##### IA. Equity Market in India: An Overview

Equity markets witnessed unprecedented buoyancy as well as steep corrections in 2007-08. Notwithstanding financial crisis in advanced economies and surge in the international crude oil prices, the benchmark indices in India crossed several landmarks during major part of the year 2007-08. However, towards the end of the year, there was steep correction in the indices on account of concerns over domestic inflation and impending global recession.

Table 2.6: Industry-wise Resource Mobilisation

Industry	2006-07			2007-08		
	No.	Amount (Rs.crore)	Percentage Share in the Total Amount	No.	Amount (Rs.crore)	Percentage Share in the Total Amount
1	2	3	4	5	6	7
Banks/Fls	5	2,190	6.53	6	30,955	35.57
Cement & Construction	13	2,747	8.20	27	18,905	21.72
Chemical	5	147	0.44	8	661	0.76
Electronics	9	480	1.43	4	684	0.79
Engineering	2	465	1.39	5	378	0.43
Entertainment	8	1,219	3.64	2	403	0.46
Finance	9	2,765	8.25	7	1,773	2.04
Food Processing	9	634	1.89	2	100	0.11
Healthcare	2	208	0.62	3	542	0.62
Information Technology	12	2,077	6.20	10	691	0.79
Paper & Pulp	1	15	0.05	1	35	0.04
Plastic	3	106	0.32	5	211	0.24
Power	1	30	0.09	4	13,709	15.75
Printing	2	121	0.36	0	0	0.00
Telecommunication	3	2,994	8.94	2	1,000	1.15
Textile	15	1,064	3.17	7	442	0.51
Miscellaneous	25	16,246	48.49	31	16,541	19.01
<b>Total</b>	<b>124</b>	<b>33,508</b>	<b>100.00</b>	<b>124</b>	<b>87,029</b>	<b>100.00</b>

## Annual Report 2007-08

The benchmark indices surpassed many landmarks during 2007-08. The BSE Sensex and S&P CNX Nifty appreciated by 19.7 per cent and 23.9 per cent, respectively, on March 31, 2008, over March 31, 2007 (Chart 2.3). During the year, BSE Sensex gained 2572 points to close at 15644 on March 31, 2008 from 13072 as on March 31, 2007. The S&P CNX Nifty added 913 points to close at 4735 at the end of March 2008 over 3822 recorded as on March 31, 2007.

The financial year 2007-08 commenced with an uptrend in the equity markets. The BSE Sensex crossed the level of 14000 in April 2007. Thereafter, markets displayed strength in the first quarter on account of liquidity support from FIIs and mutual funds and strong corporate profitability.

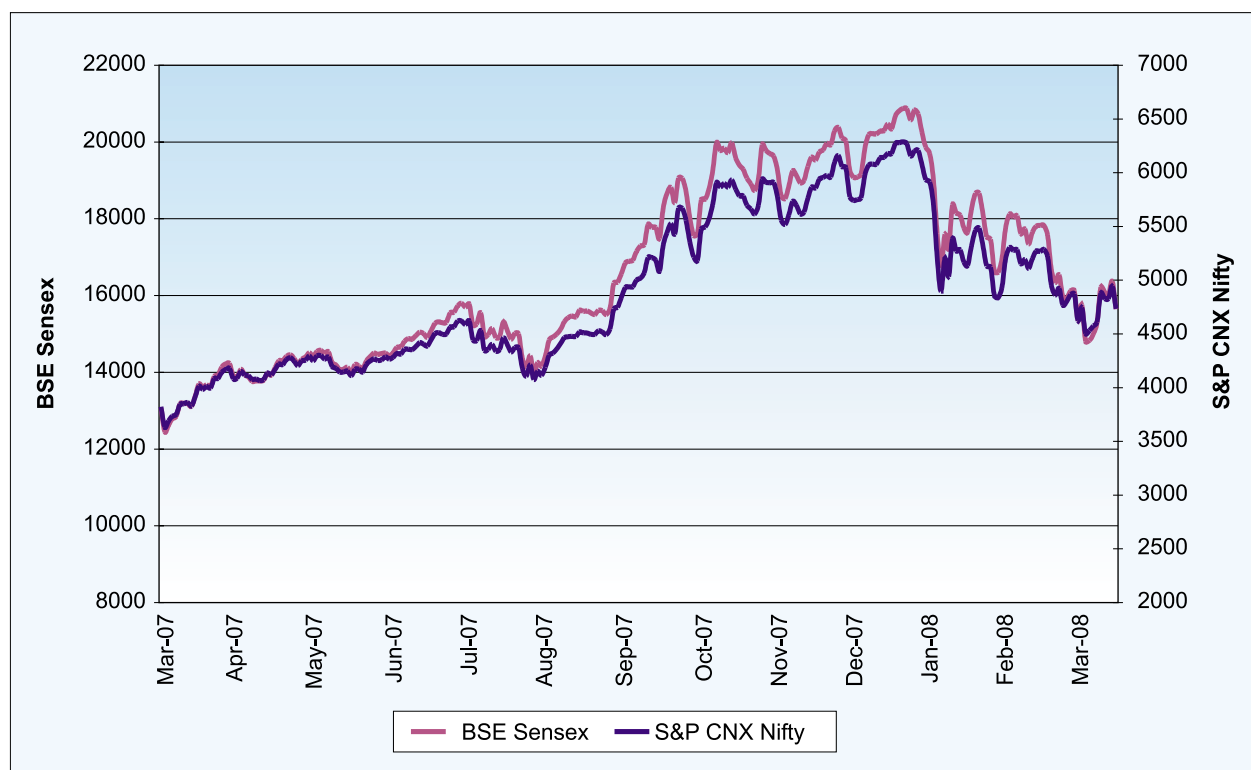
During the second quarter, the buoyant trend continued with corrections in between. Apart from the growth factors, benign inflation rate and upward trend in the global equity markets supported the trend.

However, concerns over US sub-prime mortgage crisis, surge in international crude oil prices, political uncertainty and policy to cap on ECBs were some of the worry-some factors. By the end of second quarter, BSE Sensex and S&P CNX Nifty breached 17000 level and 5000 level, respectively.

In the third quarter, upward trend continued in emerging markets and with the boom in commodity prices, the Indian equity markets also surged forward. However, in mid-December 2007, the decline in developed equity markets due to sub-prime losses, fears of credit squeeze and global recession led to a decline in Indian equity markets. The depreciation of the US dollar against major currencies and increase in global crude oil prices to high levels also contributed to decline in major equity markets.

In the beginning of the fourth quarter, on January 8, 2008, BSE Sensex and S&P CNX Nifty closed at record high of 20873 and 6288, respectively. Since mid-January 2008, markets

**Chart 2.3: Movement of Benchmark Stock Market Indices (2007-08)**





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turned volatile. On January 21, 2008, the markets recorded highest intra-day corrections in the Indian equity markets so far. During the month of October 2007 and January 2008, emerging markets witnessed higher volatility as compared to other markets. Indian indices were one of the highly volatile indices in the world during

January 2008. The annualised volatility of BSE Sensex and S&P CNX Nifty were 30.6 per cent and 32.1 per cent, respectively during 2007-08.

There was a significant rise in market capitalisation and turnover in 2007-08 on account of buoyancy in the equity market during major part of the year (Table 2.7).

**Table 2.7: Major Indicators of Indian Stock Markets**

Item	2006-07	2007-08	Percentage Variation over the Previous Year	
			2006-07	2007-08
1	2	3	4	5
<b>A. Indices</b>				
BSE Sensex				
Year-end	13072	15644	15.89	19.68
Average	12273	16569	48.27	35.00
S&P CNX Nifty				
Year-end	3822	4735	12.31	23.89
Average	3572	4897	42.14	37.08
S&P CNX 500				
Year-end	3145	3826	8.08	21.64
Average	2972	4097	35.28	37.85
<b>B. Annualised Volatility *(per cent)</b>				
BSE Sensex	27.57	30.55	—	—
S&P CNX Nifty	28.03	32.09	—	—
<b>C. Total Turnover (Rs.crore)</b>				
Cash Segment (All-India)	29,03,057	51,30,816	21.46	76.74
<i>of which</i>				
BSE	9,56,185	15,78,857	17.17	65.12
NSE	19,45,287	35,51,038	23.94	82.55
Derivatives Segment	74,15,278	1,33,32,787	53.71	79.8
<i>of which</i>				
BSE	59,007	2,42,309	655.533	310.64
NSE	73,56,271	1,30,90,478	52.49	77.95
<b>D. Market Capitalisation (Rs.crore) @</b>				
BSE	35,45,041	51,38,014	17.30	44.94
NSE	33,67,350	48,58,122	19.70	44.27
<b>E. P/E Ratio @</b>				
BSE Sensex	20.33	20.11	—	—
S&P CNX Nifty	18.40	20.63	—	—
S&P CNX 500	17.11	17.86	—	—

\* Annualised volatility is measured in terms of standard deviation of returns on index multiplied by the square root of the number of trading days.

@ As on March 31 of the respective year.

Source: Various Stock Exchanges



In the cash segment, the turnover at BSE and NSE rose by 65.1 per cent and 82.6 per cent, respectively in 2007-08 over the previous year. Significant upward trend was recorded in the derivatives segment and the combined derivative turnover at BSE and NSE rose by 79.8 per cent in 2007-08. The market capitalisation at BSE and NSE witnessed a rise of 44.9 and 44.3 per cent, respectively over the previous year. Indian markets with strong economic growth and good corporate profitability continued to attract FIIs. Substantial resource mobilisation by mutual funds from income/debt oriented schemes and equity related schemes was another significant feature of Indian securities market in 2007-08. Liquidity support by institutional investors was the major reason for the buoyancy in the Indian stock markets.

### **I.B. Global Equity Markets: An Overview**

The global equity markets were dominated by the US sub-prime mortgage and credit squeeze crisis in 2007-08. The other key downside risks were inflation, oil prices, and slowdown in the world economy led by recession in USA. The main source of inflationary pressure was on account of rising commodity prices, particularly food and crude oil. During the first half of 2007-08, the upward revision in growth expectations, robust corporate earnings, increased merger and acquisition activity and increased risk appetite led to buoyancy in equity markets in major economies. However, in the second half of 2007-08, the re-pricing of risks resulting from the deterioration in the sub-prime mortgage sector in US led to decline in the equity markets in advanced economies. In the third quarter of 2007-08, the depreciation of US dollar vis-à-vis major currencies and rise in international crude oil prices dampened the market sentiment. However, emerging markets, India in

particular, recorded gains during the third quarter due to strong portfolio flows and robust economic and corporate earnings growth.

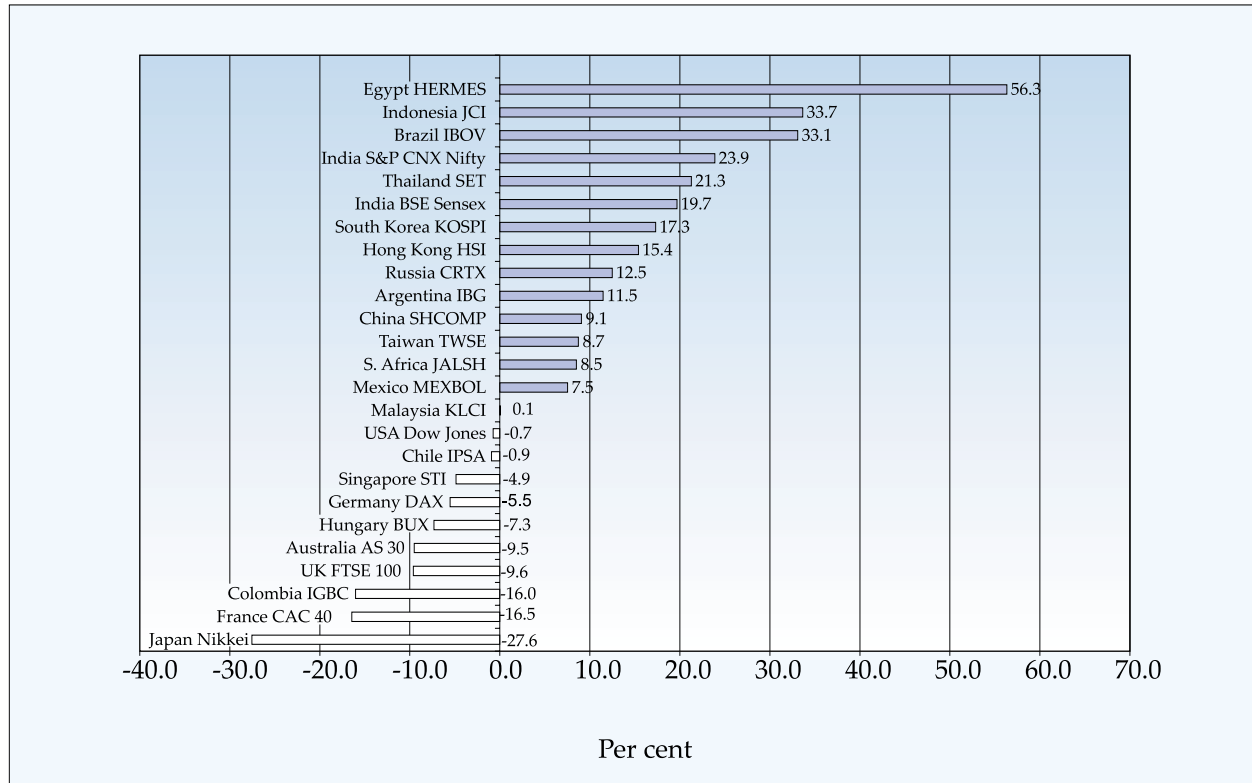
The annual return on a point-to-point basis was the highest for HERMES index of Egypt (56.3 per cent) followed by JCI of Indonesia (33.7 per cent) and IBOV of Brazil (33.1 per cent) (Chart 2.4). India's index return was the fourth highest in the world. All the advanced equity markets recorded decline during 2007-08, except Hong Kong. The decline was the highest for NIKKEI index of Japan (27.6 per cent) followed by CAC 40 index of France (16.5 per cent) and IGBC index of Colombia (16.0 per cent).

### **II. Performance of Sectoral Indices**

For the major part of 2007-08, the sectoral indices recorded buoyant performance. Among the broad-based indices of BSE, BSE 100 recorded rise of 25.0 per cent, BSE 200 (24.1 per cent) and BSE 500 (24.3 per cent) over the previous year (Chart 2.5). Among the indices of NSE, the S&P CNX 500 and CNX Mid-cap gained by 21.6 per cent and 28.7 per cent, respectively in 2007-08 (Table 2.8).

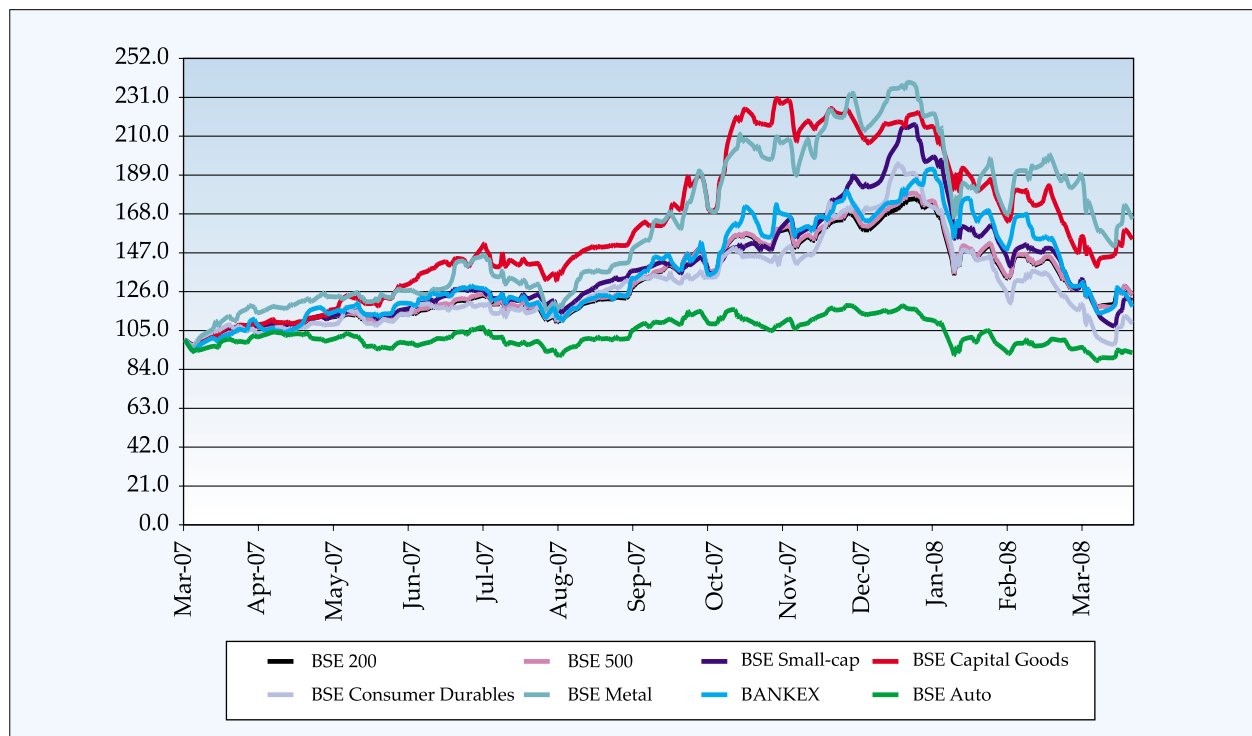
The BSE Small-cap index recorded a gain of 21.2 per cent in 2007-08. Among the sectoral indices, the highest gain was recorded by BSE Metal index (65.2 per cent), BSE Oil and Gas index (56.1 per cent) and BSE Capital Goods index (54.4 per cent) (Table 2.8 and 2.9). The rise in BSE Metal index reflected sharp rise in metal prices on account of commodity boom worldwide. BSE Oil index rose sharply on account of spiraling oil prices. The only indices which witnessed a decline were BSE Teck index (14.3 per cent) and BSE Auto index (7.1 per cent). The decline in technology indices was mainly on account of appreciation in rupee vis-a vis-dollar which affected the revenue of IT sector in rupee terms.

Chart 2.4: Year-on-Year Returns of International Indices (2007-08)



Source: Bloomberg Financial Services.

Chart 2.5: Movement of Sectoral Indices of BSE (2007-08)



Source: Bloomberg Financial Services.

**Table 2.8: Major Stock Indices and their Returns**

Year/ Month	BSE Sensex	Percent- age Variation	BSE 100	Percent- age Variation	S&P CNX Nifty	Percent- age Variation	CNX Mid Cap	Percent- age Variation	S&P CNX 500	Percent- age Variation
1	2	3	4	5	6	7	8	9	10	11
2003-04	5591	83.37	2966	97.60	1772	81.18	2165	NA	1458	107.98
2004-05	6493	16.13	3482	17.39	2036	14.90	2927	35.20	1773	21.60
2005-06	11280	73.73	5904	69.56	3403	67.14	4787	63.55	2910	64.13
2006-07	13072	15.89	6587	11.57	3822	12.31	4850	1.32	3145	8.09
2007-08	15644	19.68	8233	24.99	4735	23.87	6241	28.68	3826	21.65
Apr-07	13872	6.12	7033	6.77	4088	6.96	5246	8.16	3379	7.44
May-07	14544	4.84	7469	6.20	4296	5.09	5644	7.60	3564	5.46
Jun-07	14651	0.73	7605	1.83	4318	0.52	5976	5.87	3626	1.74
Jul-07	15551	6.15	8004	5.24	4529	4.88	6178	3.38	3784	4.36
Aug-07	15319	-1.49	7858	-1.83	4464	-1.43	6044	-2.17	3712	-1.91
Sep-07	17291	12.88	8967	14.12	5021	12.48	6867	13.62	4189	12.85
Oct-07	19838	14.73	10391	15.88	5901	17.52	7450	8.49	4807	14.77
Nov-07	19363	-2.39	10384	-0.07	5763	-2.34	7994	7.30	4870	1.31
Dec-07	20287	4.77	11154	7.41	6139	6.52	9200	15.09	5355	9.96
Jan-08	17649	-13.00	9441	-15.36	5137	-16.31	7308	-20.57	4349	-18.79
Feb-08	17579	-0.40	9405	-0.38	5224	1.67	7246	-0.85	4361	0.27
Mar-08	15644	-11.00	8233	-12.46	4735	-9.36	6241	-13.87	3826	-12.27

**Note:** Indices relate to closing values as on the last trading day of the respective year/month.

Source: BSE, NSE.

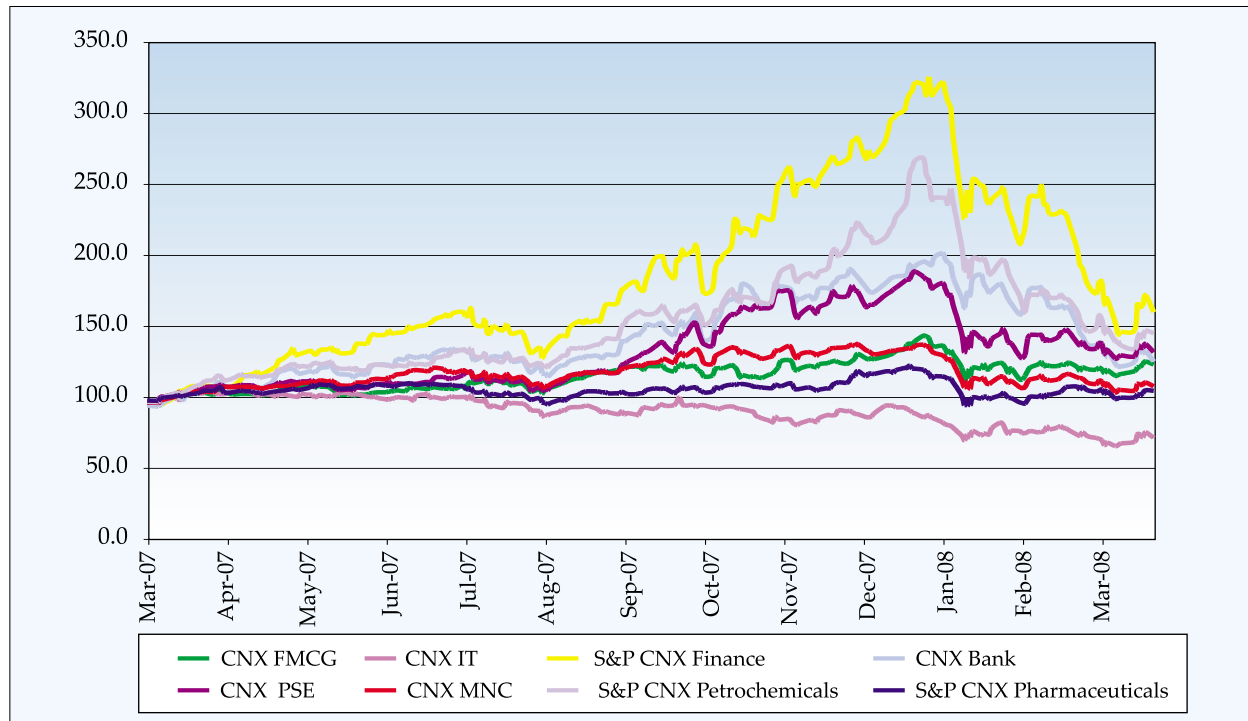
**Table 2.9: Sectoral Stock Indices and their Returns**

Year/ Month	CNX IT	Percent- age Variation	CNX Bank	Percent- age Variation	CNX PSE	Percent- age Variation	BSE Oil and Gas	Percent- age Variation	BSE FMCG	Percent- age Variation
1	2	3	4	5	6	7	8	9	10	11
2003-04	1937	29.39	2814	NA	1684	147.65	3200	133.92	718	31.48
2004-05	2923	50.90	3537	25.69	1726	2.49	3054	-4.58	1053	11.55
2005-06	4353	48.92	4662	31.79	2554	47.97	4919	61.07	2211	110.07
2006-07	5181	19.01	5309	13.87	2484	-2.73	6419	30.50	1739	-21.38
2007-08	3705	-28.49	6655	25.35	3274	31.80	10017	56.05	2290	31.69
Apr-07	5418	4.58	5621	5.88	2673	7.62	7135	11.16	1801	3.54
May-07	5218	-3.69	6325	12.52	2764	3.39	7796	9.25	1907	5.93
Jun-07	5192	-0.50	6740	6.57	2734	-1.09	7627	-2.17	1829	-4.09
Jul-07	5087	-2.03	6928	2.79	2858	4.53	8131	6.61	1973	7.86
Aug-07	4813	-5.38	6676	-3.65	2858	0.02	8160	0.36	1974	0.04
Sep-07	4804	-0.19	8042	20.47	3274	14.53	9562	17.18	2161	9.49
Oct-07	4794	-0.21	9013	12.07	3967	21.18	11658	21.93	2127	-1.61
Nov-07	4431	-7.57	9376	4.03	4065	2.47	12360	6.01	2155	1.33
Dec-07	4813	8.62	9863	5.19	4515	11.07	13302	7.62	2320	7.66
Jan-08	3838	-20.26	9226	-6.46	3391	-24.89	10705	-19.52	2167	-6.58
Feb-08	3985	3.83	8688	-5.83	3639	7.31	11032	3.05	2274	4.94
Mar-08	3705	-7.03	6655	-23.40	3274	-10.03	10017	-9.20	2290	0.69

**Note:** Indices relate to closing values as on the last trading day of the respective year/month.

Source: BSE, NSE.

Chart 2.6: Movement of Sectoral Indices of NSE (2007-08)



The movement of sectoral indices at NSE is depicted in Chart 2.6. During 2007-08, the highest rise was witnessed in S&P CNX Finance (60.1 per cent), followed by S&P CNX Petrochemicals (45.3 per cent), CNX PSE (31.8 per cent) and CNX Bank (25.4 per cent). CNX IT index saw a decline of 28.5 per cent in 2007-08.

### III. Turnover in Indian Stock Market

There has been a spurt in the growth of trading volumes in stock exchanges since 2005-06. During 2007-08, turnover of all stock exchanges in the cash segment rose by 76.7 per cent to Rs. 51,30,816 crore compared to Rs. 29,03,057 crore in 2006-07 (Table 2.10). BSE and NSE together contributed more than 99 per cent of the turnover, and of which NSE accounted for 69.2 per cent in the total turnover in cash market. Apart from NSE and BSE, the only two stock exchanges which recorded turnover during 2007-08 were Kolkata Stock Exchange and UPSE. There

was hardly any transaction on other stock exchanges. Growth in turnover at BSE and NSE was phenomenal in 2007-08 as it rose by 65.1 per cent and 82.5 per cent, respectively over the previous year. Month-wise, BSE and NSE recorded the highest turnover in October 2007 followed by January 2008 and November 2007 (Table 2.11).

The rise in the volumes in NSE and BSE has augmented their positions in the global scenario. As per the data released by World Federation of Exchanges (WFE), NSE was ranked third and BSE was ranked sixth in the world in terms of the number of trades in equity shares. In terms of the value of shares traded, NSE was ranked 17<sup>th</sup> in the world for the calendar year 2007.

City-wise distribution of the turnover of NSE and BSE indicates the geographical spread of the securities market in India. Of the top ten cities, Mumbai/Thane accounted for 23.4 per cent and 39.9 per cent of the total

Table 2.10: Exchange-wise Cash Segment Turnover

(Rs. crore)

Stock Exchange	2006-07	2007-08	Percentage Share (2007-08)
1	2	3	4
<b>Recognised Stock Exchanges</b>			
Ahmedabad	Nil	Nil	Nil
BSE	9,56,185	15,78,857	30.77
Bangalore	Nil	Nil	Nil
Bhubaneswar	Nil	Nil	Nil
Cochin	Nil	Nil	Nil
Coimbatore	Nil	NA	NA
Delhi	Nil	Nil	Nil
Gauhati	Nil	Nil	Nil
ISE	Nil	Nil	Nil
Jaipur	Nil	Nil	Nil
Kolkata	694	446	0.01
Ludhiana	Nil	Nil	Nil
Madras	1.2	Nil	Nil
MPSE	Nil	Nil	Nil
NSE	19,45,287	35,51,037	69.21
OTCEI	Nil	Nil	Nil
Pune	Nil	Nil	Nil
UPSE	799	475	0.01
Vadodara	Nil	Nil	Nil
<b>De-recognised Stock Exchanges</b>			
Hyderabad	92	NA	NA
Magadh	Nil	NA	NA
Mangalore	NA	NA	NA
SKSE	Nil	NA	NA
<b>Total</b>	<b>29,03,057</b>	<b>51,30,816</b>	<b>100.00</b>

Source: Various Stock Exchanges

## Part Two: Review of Trends and Operations

**Table 2.11: Turnover at BSE and NSE: Cash Segment**

(Rs. crore)

Year / Month	BSE		NSE		Total Turnover
	Turnover	Percentage Variation*	Turnover	Percentage Variation*	
1	2	3	4	5	6
2003-04	5,03,053	60.17	10,99,534	77.92	16,02,587
2004-05	5,18,717	3.11	11,40,071	3.68	16,58,788
2005-06	8,16,074	57.33	15,69,558	37.67	23,85,632
2006-07	9,56,185	17.17	19,45,287	23.94	29,01,471
2007-08	15,78,857	65.12	35,51,037	82.55	51,29,894
Apr-07	78,693	0.85	1,68,567	0.36	2,47,260
May-07	98,821	25.58	2,07,585	23.15	3,06,406
Jun-07	95,268	-3.59	1,93,648	-6.71	2,88,916
Jul-07	1,25,054	31.26	2,67,227	38.00	3,92,281
Aug-07	1,06,041	-15.20	2,31,241	-13.47	3,37,282
Sep-07	1,23,144	16.13	2,66,050	15.05	3,89,194
Oct-07	1,99,089	61.67	4,55,589	71.24	6,54,678
Nov-07	1,70,623	-14.30	4,14,419	-9.04	5,85,042
Dec-07	1,63,516	-4.17	3,66,385	-11.59	5,29,901
Jan-08	1,85,642	13.53	4,47,138	22.04	6,32,780
Feb-08	1,21,975	-34.30	2,80,176	-37.34	4,02,151
Mar-08	1,10,991	-9.01	2,53,012	-9.70	3,64,003

Source: BSE, NSE.

\* Over previous period.

turnover at BSE and NSE respectively (Table 2.12). The share of other cities remained far behind. At NSE, Delhi accounted for 10.2 per cent of turnover followed by Calcutta/Howrah (7.6 per cent) and Ahmedabad

(2.3 per cent). About 61.3 per cent of the turnover at NSE originated from top 5 cities. However at BSE, the share of top 5 cities was 26.4 per cent.

Table 2.12: City-wise Turnover of Top 10 Cities in Cash Segment of BSE and NSE during 2007-08

BSE			NSE		
City	Turnover (Rs.crore)	Percentage Share in All-India Turnover	City	Turnover (Rs.crore)	Percentage Share in All-India Turnover
1	2	3	4	5	6
Mumbai/ Navi Mumbai	12,02,557 (7,39,354)	23.44 (25.47)	Mumbai / Thane	20,47,376 (11,09,986)	39.90 (38.24)
Ahmedabad	53,835 (29,096)	1.05 (1.00)	Delhi	5,20,951 (2,63,365)	10.15 (9.07)
Delhi	50,653 (31,412)	0.99 (1.08)	Calcutta / Howrah	3,89,270 (2,05,918)	7.59 (7.09)
Rajkot	28,750 (12,090)	0.56 (0.42)	Ahmedabad	1,19,866 (56,326)	2.34 (1.94)
New Delhi	16,174 (5,277)	0.32 (0.19)	Chennai	67,341 (42,348)	1.31 (1.46)
Kolkata	15,336 (10,458)	0.30 (0.36)	Hyderabad/Secunderabad/ Kukatpally	44,887 (23,521)	0.87 (0.81)
Vadodara	13,555 (8,522)	0.26 (0.29)	Ghaziabad	30,928 (19,750)	0.60 (0.68)
Jaipur	11,812 (7,116)	0.23 (0.24)	Bangalore	28,575 (25,820)	0.56 (0.89)
Noida	11,592 (8,331)	0.23 (0.29)	Baroda	28,391 (17,302)	0.55 (0.60)
Pune	11,734 (7,797)	0.23 (0.27)	Rajkot	26,718 (6,926)	0.52 (0.24)

**Note:** Figures in parentheses pertain to 2006-07.

Source: BSE, NSE

#### IV. Market Capitalisation

The market capitalisation of BSE increased by 44.9 per cent to Rs. 51,38,014 crore in 2007-08 from Rs. 35,45,041 crore at the end of 2006-07 (Table 2.13). At NSE also, market capitalisation rose by 44.3 per cent to Rs. 48,58,122 crore at the end of March 2008 from Rs. 33,67,350 crore at the end of March 2007. As per the data release of WFE, BSE and NSE were ranked 11<sup>th</sup> and 13<sup>th</sup> in the world in terms of market capitalisation at the end of March 2008.

Among the indices of BSE, the market capitalisation was the highest for BSE Sensex

(Rs.22,23,701 crore) which recorded a rise of 29.9 per cent over the previous year. During 2007-08, market capitalisation of BSE PSU index and Bankex index increased by 59.6 per cent and 46.7 per cent, respectively, over the previous year. However, the BSE Teck index, witnessed a decline of 5.0 per cent in the market capitalisation during 2007-08 over the previous year.

At NSE, market capitalisation was the highest for S&P CNX Nifty (Rs.28,48,773 crore) and the growth rate was 49.2 per cent over the previous year (Table 2.14). Of the other indices followed by NSE, rise in market



Table 2.13: Market Capitalisation at BSE

(Rs. crore)

Year/ Month	All Listed Companies	Perce- tage Variation	BSE Sensex	Perce- tage Variation	BSE- TECK	Perce- tage Variation	BANKEX	Perce- tage Variation	BSE PSU	Perce- tage Variation
1	2	3	4	5	6	7	8	9	10	11
2003-04	12,01,206	109.90	6,25,173	148.93	1,45,053	63.47	1,13,094	151.09	4,11,532	158.75
2004-05	16,98,428	41.39	7,25,553	16.06	2,82,425	94.70	1,54,048	36.21	5,16,365	25.47
2005-06	30,22,190	77.94	14,24,112	96.28	4,68,278	65.81	2,19,894	42.74	7,48,614	44.98
2006-07	35,45,041	17.30	17,11,241	20.16	7,17,127	53.14	2,57,026	16.89	7,22,517	-3.49
2007-08	51,38,014	44.94	22,23,701	29.95	6,81,431	-4.98	3,77,020	46.69	11,53,034	59.59
Apr-07	38,28,177	7.99	18,19,912	6.35	7,96,751	11.10	2,74,343	6.74	7,86,261	8.82
May-07	40,74,550	6.44	18,96,827	4.23	8,03,868	0.89	3,06,986	11.90	8,27,523	5.25
Jun-07	41,68,271	2.30	18,92,504	-0.23	8,04,199	0.04	3,26,492	6.35	8,33,939	0.78
Jul-07	45,29,770	8.67	20,32,960	7.42	8,36,903	4.07	3,60,100	10.29	8,96,063	7.45
Aug-07	45,38,005	0.18	20,08,913	-1.18	7,97,942	-4.66	3,53,306	-1.89	8,88,040	-0.90
Sep-07	52,02,953	14.65	22,49,888	12.00	8,24,978	3.39	4,31,846	22.23	10,26,543	15.60
Oct-07	63,32,092	21.70	26,26,260	16.73	8,83,188	7.06	4,80,891	11.36	12,11,356	18.00
Nov-07	63,85,474	0.84	27,12,818	3.30	8,33,836	-5.59	5,04,969	5.01	14,72,344	21.55
Dec-07	71,69,983	12.29	28,61,341	5.47	9,16,736	9.94	5,33,225	5.60	16,03,267	8.89
Jan-08	57,96,077	-19.16	24,47,180	-14.47	7,42,729	-18.98	5,18,488	-2.76	12,69,645	-20.81
Feb-08	58,87,846	1.58	24,46,257	-0.04	7,30,173	-1.69	4,91,106	-5.28	13,17,188	3.74
Mar-08	51,38,014	-12.74	22,23,701	-9.10	6,81,431	-6.68	3,77,020	-23.23	11,53,034	-12.46

Source: BSE

capitalisation was 35.3 per cent for CNX Mid-cap and 53.0 per cent for CNX Bank. The CNX IT index and S&P CNX Pharmaceuticals index however, witnessed decline in market capitalisation by 23.3 per cent and 3.5 per cent, respectively.

## V. Stock Market Indicators

The market capitalisation to GDP ratio is an important indicator of stock market development. Also, liquidity of the market can be measured by the traded value ratio, i.e., value of the shares traded to GDP at current market prices. The market capitalisation to GDP ratio has increased substantially during the last five years at BSE

and NSE. The BSE market capitalisation to GDP ratio increased from 23.3 per cent in 2002-03 to 85.5 per cent in 2006-07 and further to 109.0 per cent in 2007-08 (Table 2.15). Similarly, the market capitalisation to GDP ratio at NSE also increased from 21.9 per cent in 2002-03 to 103.1 per cent in 2007-08.

The phenomenal increase in turnover has also pushed up the traded value to GDP ratio significantly in 2007-08. It rose from 70.0 per cent in 2006-07 to 108.9 per cent in 2007-08. The rise in the traded value ratio of the derivatives segment was more impressive which increased from 178.9 per cent in 2006-07 to 282.9 per cent in 2007-08.

Table 2.14: Market Capitalisation at NSE

(Rs. crore)

Year/ Month	All Listed Com- panies	Perce- tage Varia- tion	S&P CNX Nifty	Perce- tage Varia- tion	CNX Mid Cap	Perce- tage Varia- tion	CNX IT	Perce- tage Varia- tion	CNX Bank	Perce- tage Varia- tion	S&P CNX Pharma- ceuticals	Perce- tage Varia- tion
1	2	3	4	5	6	7	8	9	10	11	12	13
2003-04	11,20,976	108.70	6,38,599	NA	81,280	-1.32	1,03,168	39.52	1,01,928	NA	68,831	83.69
2004-05	15,85,585	41.44	9,51,672	49.02	1,48,019	82.11	2,27,191	120.20	1,36,921	34.33	93,126	35.30
2005-06	28,13,201	77.42	15,90,155	67.09	3,38,927	128.98	3,48,096	53.22	2,00,503	46.44	1,47,124	57.98
2006-07	33,67,350	19.70	19,09,448	20.08	3,41,869	0.87	4,20,814	20.89	2,29,084	14.25	1,46,394	-0.50
2007-08	48,58,122	44.27	28,48,773	49.19	4,62,665	35.33	3,22,637	-23.33	3,50,535	53.02	1,41,314	-3.47
Apr-07	36,50,368	8.40	20,96,100	9.78	4,00,233	17.07	4,58,781	9.02	2,56,972	12.17	1,49,281	1.97
May-07	38,98,078	6.79	22,06,712	5.28	4,31,631	7.84	4,42,648	-3.52	2,89,142	12.52	1,56,827	5.05
Jun-07	39,78,381	2.06	22,19,151	0.56	4,59,934	6.56	4,40,706	-0.44	3,08,602	6.73	1,56,949	0.08
Jul-07	43,17,571	8.53	23,58,907	6.30	4,77,205	3.76	4,31,849	-2.01	3,36,862	9.16	1,51,528	-3.45
Aug-07	42,96,994	-0.48	23,31,929	-1.14	4,71,770	-1.14	4,09,960	-5.07	3,32,468	-1.30	1,45,380	-4.06
Sep-07	48,86,561	13.72	27,74,625	18.98	4,83,469	2.48	4,10,397	0.11	4,00,564	20.48	1,48,025	1.82
Oct-07	57,22,227	17.10	33,28,356	19.96	5,26,552	8.91	4,09,725	-0.16	4,50,897	12.57	1,54,209	4.18
Nov-07	58,76,742	2.70	32,57,297	-2.13	5,71,790	8.59	3,78,837	-7.54	4,69,132	4.04	1,48,819	-3.50
Dec-07	65,43,272	11.34	35,22,527	8.14	6,60,262	15.47	4,11,742	8.69	4,93,675	5.23	1,70,332	14.46
Jan-08	52,95,387	-19.07	29,66,421	-15.79	5,25,451	-20.42	3,28,431	-20.23	4,79,332	-2.91	1,39,646	-18.02
Feb-08	54,19,942	2.35	30,16,694	1.69	5,28,591	0.60	3,41,077	3.85	4,52,936	-5.51	1,44,311	3.34
Mar-08	48,58,122	-10.37	28,48,773	-5.57	4,62,665	-12.47	3,22,637	-5.41	3,50,535	-22.61	1,41,314	-2.08

Source: NSE

The valuation of the shares could be gauged from the price-earning ratio. In contrast to the trend in the previous year, the P/E ratios of the majority of indices witnessed

a moderate rise in 2007-08. India's P/E ratio was one of the highest in the emerging markets in 2007-08 (Chart 2.7). At the end of March 2008, the P/E ratios of BSE Sensex and

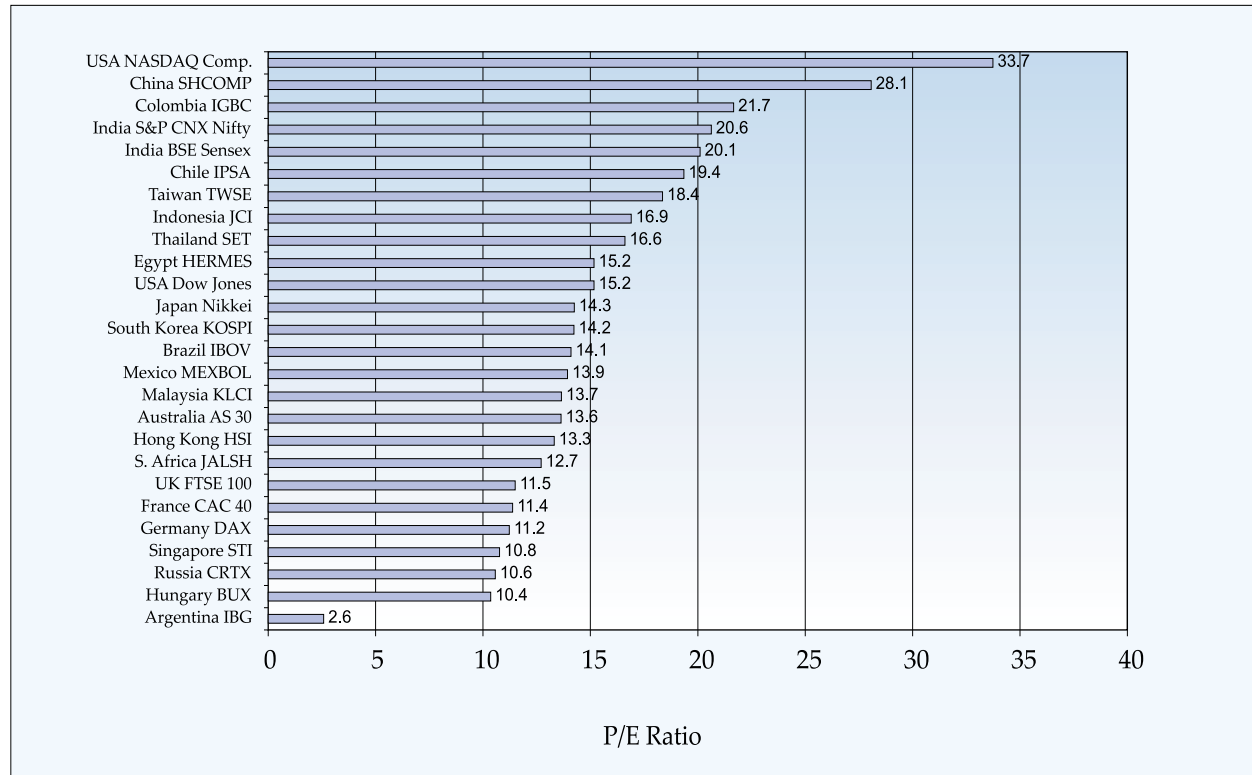
Table 2.15: Select Ratios Relating to Stock Market

(Per cent)

Year	BSE Market Capitalisation to GDP Ratio	NSE Market Capitalisation to GDP Ratio	Total Turnover to GDP Ratio	
			Cash Segment (All India)	Derivatives Segment (BSE+NSE)
1	2	3	4	5
2002-03	23.28	21.85	39.33	17.95
2003-04	43.44	40.53	58.71	77.64
2004-05	54.32	50.71	53.40	82.12
2005-06	84.41	78.57	66.76	134.74
2006-07	85.51	81.22	70.02	178.86
2007-08	109.01	103.08	108.86	282.89

Sources: Central Statistical Organisation and Various Stock Exchanges.

Chart 2.7: P/E Ratios of International Indices



Source: Bloomberg Financial Services.

S&P CNX Nifty were 20.1 and 20.6, respectively. Month-wise data indicate rise in the P/E ratios of benchmark indices in every month in 2007-08, except in July 2007, August 2007, January 2008 and March 2008. The P/E ratios of the indices viz., S&P CNX Nifty and BSE Sensex were the fifth and sixth highest in the world, respectively.

In the developed markets, the NASDAQ Composite and Dow Jones Industrial Average of the U.S. had the highest P/E ratios in 2007-08. In emerging markets, SHCOMP index of China and IGBC index of Colombia also had higher P/E ratios in 2007-08, other than that of Indian benchmark indices.

The price to book value (P/B) ratio is another important indicator which measures the returns left for the shareholders after providing for liabilities of a company. Thus, the P/B ratio shows the asset quality of companies pertaining to that sector. The P/B

ratio was the highest for the CNX IT index at 6.17, followed by the benchmark indices, BSE Sensex and S&P CNX Nifty at 5.18 and 5.09, respectively (Table 2.17).

## VI. Volatility in Stock Markets

Based on the upward and downward movement in the stock prices, the annualised volatility of BSE Sensex, measured by standard deviation of log returns, increased to 30.6 per cent in 2007-08 from 27.6 per cent in the previous year. Similar trend was also observed for S&P CNX Nifty, which recorded annualised volatility of 32.1 per cent in 2007-08 compared to 28.0 per cent in the previous year. Month-wise, volatility in the benchmark indices was the highest in January 2008 and March 2008, coinciding with significant correction of indices during those months (Table 2.18). The lowest volatility in the benchmark indices was noticed during May 2007 and June 2007. In case of the BSE Mid-

**Table 2.16: Price-Earnings Ratio**

Year/ Month*	BSE Sensex	BSE 100	S&P CNX Nifty	CNX Mid Cap	CNX IT	CNX Bank	CNX PSE
1	2	3	4	5	6	7	8
2003-04	18.57	16.11	20.70	17.15	28.77	9.84	12.37
2004-05	15.61	13.30	14.60	21.93	51.14	10.79	10.57
2005-06	20.92	20.08	20.26	23.09	46.47	15.31	13.66
2006-07	20.33	17.64	18.40	15.58	32.35	14.15	10.61
2007-08	20.11	19.95	20.63	14.75	17.94	16.16	13.47
Apr-07	20.71	18.36	19.48	16.70	30.61	16.16	11.41
May-07	21.05	19.10	20.41	17.28	30.39	17.35	12.49
Jun-07	21.09	20.83	20.60	18.43	30.24	18.52	12.47
Jul-07	21.03	20.61	20.49	17.73	28.01	18.58	12.37
Aug-07	20.76	20.27	20.20	17.45	25.89	18.34	12.38
Sep-07	23.25	23.08	22.58	19.25	25.93	22.10	14.18
Oct-07	25.52	27.16	25.74	20.41	24.77	23.17	16.41
Nov-07	26.23	26.71	25.21	21.45	22.48	24.11	16.89
Dec-07	27.67	28.98	27.62	25.08	24.43	25.37	18.76
Jan-08	21.95	22.52	21.97	18.65	18.10	22.15	13.94
Feb-08	21.99	22.46	22.27	17.47	18.97	20.93	14.97
Mar-08	20.11	19.95	20.63	14.75	17.94	16.16	13.47

\* As on March 31 of the respective year/month

Source: BSE, NSE.

**Table 2.17: Price to Book-Value Ratio**

Year/ Month*	BSE Sensex	BSE 100	S&P CNX Nifty	CNX Mid Cap	CNX IT	CNX Bank	CNX PSE
1	2	3	4	5	6	7	8
2003-04	3.50	3.09	3.50	1.49	5.70	2.07	2.87
2004-05	3.72	3.23	3.82	2.40	11.28	2.31	2.55
2005-06	5.13	4.37	5.15	4.39	11.96	2.58	3.12
2006-07	5.07	4.43	4.87	3.06	11.68	2.24	2.70
2007-08	5.18	4.98	5.09	2.97	6.17	2.88	3.08
Apr-07	5.09	4.56	5.33	3.45	12.61	2.56	2.90
May-07	4.88	4.56	5.59	3.71	12.04	2.88	3.00
Jun-07	4.78	4.73	5.40	3.72	10.06	2.79	2.97
Jul-07	5.07	4.97	5.31	3.78	9.63	2.96	3.11
Aug-07	4.94	4.67	5.08	3.65	8.17	2.92	3.08
Sep-07	5.53	5.31	5.36	3.81	8.09	3.52	3.24
Oct-07	6.12	6.37	6.18	4.06	8.07	3.97	3.77
Nov-07	6.37	6.36	6.05	4.27	7.40	4.13	3.86
Dec-07	6.71	6.90	6.39	5.00	7.91	4.34	4.28
Jan-08	5.66	5.61	5.38	3.97	6.31	4.22	3.22
Feb-08	5.66	5.64	5.47	3.72	6.55	3.98	3.45
Mar-08	5.18	4.98	5.09	2.97	6.17	2.88	3.08

**Note:** CNX Bank Index was launched w.e.f. September 15, 2003.

\*As on March 31 of the respective year/month

Source: BSE, NSE.

**Table 2.18: Average Daily Volatility of Benchmark Indices**

(Per cent)

2007-08	BSE Sensex	S&P CNX Nifty	BSE 100	BSE Small-Cap	BSE 500
1	2	3	4	5	6
April	1.68	1.73	1.62	1.10	1.50
May	0.80	0.86	0.81	0.71	0.77
June	0.82	0.84	0.85	0.70	0.81
July	1.07	1.15	1.09	1.10	1.04
August	2.00	2.04	2.07	1.79	2.00
September	1.04	1.08	0.93	0.57	0.85
October	2.34	2.48	2.42	1.67	2.27
November	1.73	1.73	1.77	1.66	1.71
December	1.49	1.60	1.55	1.51	1.50
January	2.89	3.27	3.38	3.56	3.52
February	2.32	2.46	2.37	2.05	2.28
March	3.21	3.04	3.33	3.44	3.27

**Note:** Volatility is measured in terms of standard deviation and is computed from the returns based on closing values of indices as on the last date of the month.

Source: BSE, NSE.

cap and BSE Small-cap indices, the highest volatility was observed in January 2008.

An international comparison of volatility in stock returns indicates that emerging markets were more volatile than developed markets during 2007-08 (Table 2.19 and Chart 2.8). Indian markets were the third most volatile in the world. China and Hong Kong were the only markets which were more volatile than India. Among the developed markets, the annualised volatility was high in Hong Kong (34.7 per cent) followed by Japan (24.5 per cent) and Australia (22.3 per cent). Apart from India and China, among the emerging markets, annualised volatility was higher for Brazil (29.3 per cent), Indonesia (28.2 per cent) and Russia (27.9 per cent).

### VII. Trading Frequency

Trading frequency of stocks in BSE and NSE gives picture of liquidity in the Indian securities market. During 2007-08, the average

number of shares traded in BSE was 3,166 as compared to 3,097 in 2006-07 (Table 2.20). On the other hand, the average number of shares traded in NSE were 1,266 in 2007-08 compared to 1,121 in 2006-07. The number of shares traded above 100 days also improved in both the stock exchanges which reflected a rise in frequently traded stocks. In percentage terms, about 90.6 per cent of the shares were traded for more than 100 days at BSE compared to 86.3 per cent in 2006-07. Similarly, in NSE too, the percentage of shares traded increased from 87.5 per cent in 2006-07 to 93.0 per cent in 2007-08. The percentage share of stocks traded for less than 10 days was 3.3 per cent at BSE and 0.6 per cent at NSE in 2007-08.

### VIII. Activities of the Regional Stock Exchanges

Over the years, NSE and BSE have emerged as the nation-wide stock exchanges of the country contributing more than 99 per

Table 2.19: Trends in Daily Volatility of International Stock Market Indices during 2007-08

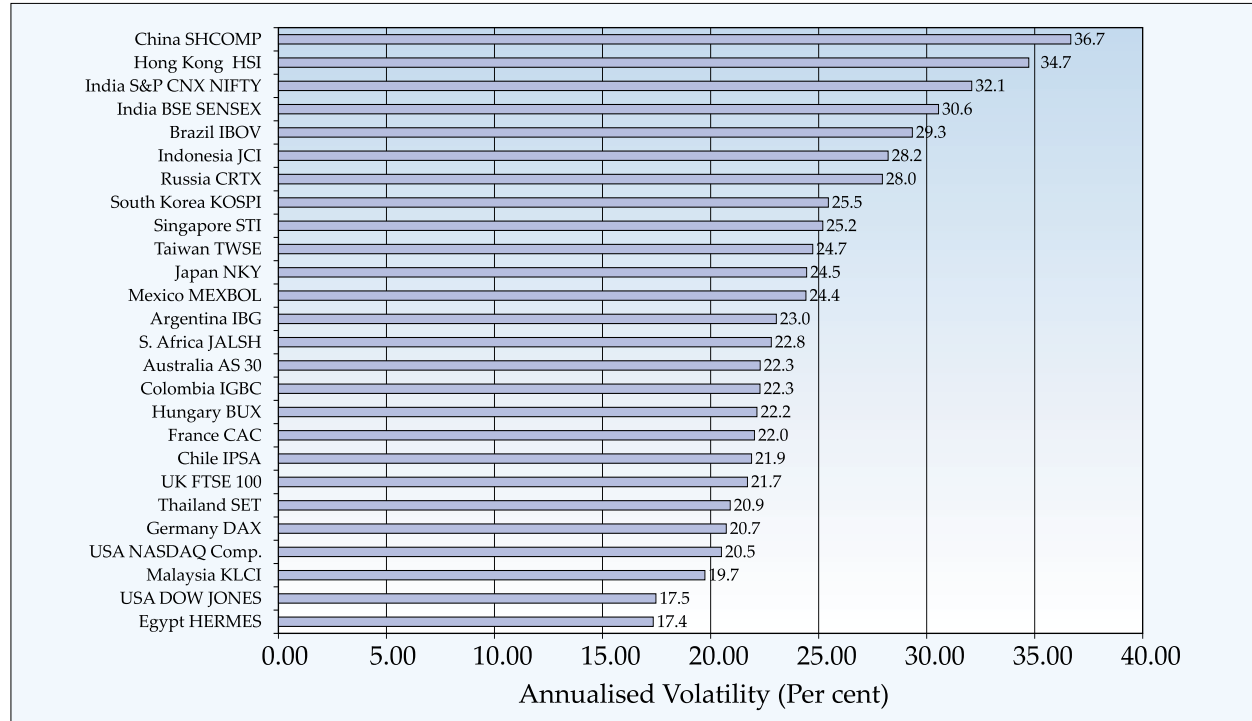
(Per cent)

Country	Index	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Annualised Volatility
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>DEVELOPED MARKETS</b>														
USA	DJIA	0.49	0.46	0.78	1.04	1.34	0.91	0.84	1.50	1.00	1.48	1.23	1.60	17.47
USA	Nasdaq	0.60	0.77	0.84	1.03	1.45	0.98	1.15	1.77	1.30	1.63	1.35	2.02	20.55
UK	FTSE 100	0.52	0.55	0.77	1.19	1.95	1.31	0.89	1.48	1.24	2.06	1.73	1.78	21.71
France	CAC	0.65	0.60	0.93	1.20	1.71	1.41	0.72	1.29	1.08	2.43	1.72	1.76	22.03
Germany	DAX	0.76	0.67	1.24	1.24	1.17	1.05	0.59	1.04	0.93	2.36	1.61	1.86	20.73
Australia	AS 30	0.80	0.76	0.82	0.87	1.94	0.87	0.87	1.28	1.11	2.58	1.62	2.04	22.30
Japan	NKY	1.02	0.74	0.65	0.84	1.89	1.48	1.02	1.50	1.20	2.76	2.19	2.21	24.45
Hong Kong	HSI	0.96	0.96	0.90	1.12	2.38	1.26	2.16	2.84	1.83	4.06	2.46	2.92	34.73
Singapore	STI	1.23	0.84	0.84	1.03	2.44	1.31	1.31	1.71	1.26	2.42	1.70	1.81	25.19
<b>EMERGING MARKETS</b>														
Taiwan	TWSE	0.71	0.63	0.79	1.40	2.32	0.92	1.12	1.82	1.69	2.40	1.62	1.83	24.73
Russia	CRTX	1.30	1.49	1.57	1.46	1.67	1.38	1.51	1.33	1.62	3.42	2.22	1.75	27.95
Malaysia	KLCI	0.68	0.80	0.59	0.79	1.89	0.67	0.71	0.85	0.81	1.70	0.98	2.73	19.74
South Korea	KOSPI	0.71	0.65	1.12	1.55	2.70	1.46	1.58	2.00	1.28	2.00	1.72	1.42	25.45
Thailand	SET	0.56	0.72	1.33	1.28	2.10	0.82	1.13	1.36	1.54	1.90	1.17	1.03	20.91
China	SHCOMP	1.73	2.30	3.01	2.24	1.91	1.74	2.19	2.29	1.57	2.73	2.88	2.63	36.67
S. Africa	JALSH	0.75	1.03	0.91	1.20	2.14	1.24	0.90	1.16	1.47	2.17	1.86	1.71	22.81
Brazil	IBOV	0.85	1.31	1.18	1.71	2.21	1.70	1.90	2.31	1.74	2.92	1.77	2.26	29.34
Colombia	IGBC	0.85	1.59	0.87	0.79	1.72	0.78	0.98	0.98	1.08	2.79	1.32	1.98	22.29
Hungary	BUX	0.81	1.03	1.57	0.97	1.60	1.06	0.69	1.75	1.27	1.83	1.57	2.03	22.15
Egypt	HERMES	0.82	0.74	0.91	1.08	1.21	0.87	0.72	1.00	1.21	1.96	1.19	1.14	17.35
Indonesia	JCI	1.16	0.81	0.94	1.11	3.18	0.99	1.89	1.37	1.20	3.38	1.23	2.19	28.22
Argentina	IBG	0.78	1.04	0.84	1.45	2.62	1.06	0.87	1.48	1.07	2.27	1.05	1.72	23.04
Chile	IPSA	0.49	1.38	0.88	0.74	1.77	1.02	0.83	1.41	1.65	2.65	1.31	1.12	21.90
Mexico	MEXBOL	0.70	1.23	1.06	1.34	1.83	1.02	1.18	2.19	1.43	2.43	1.81	1.76	24.41
India	BSE Sensex	1.68	0.80	0.82	1.07	2.00	1.04	2.34	1.73	1.49	2.89	2.32	3.21	30.55
India	S&P CNX Nifty	1.75	0.85	0.84	1.16	2.06	1.06	2.46	1.72	1.67	3.29	2.46	3.06	32.09

Source: Bloomberg Financial Services.

## Part Two: Review of Trends and Operations

**Chart 2.8: Annualised Volatility of International Indices (2007-08)**



Source: Bloomberg Financial Services.

\*Annualised volatility is calculated by multiplying the standard deviation of the logarithmic returns with the square root of the number of trading days for the period. Mathematically, annualised  $\sigma = \sigma \sqrt{t}$ .

**Table 2.20: Trading Frequency of Listed Stocks**

Trading Frequency (Range of Days)	2006-07				2007-08			
	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
1	2	3	4	5	6	7	8	9
Above 100	2,673	86.31	981	87.51	2,868	90.59	1,177	92.97
91-100	30	0.97	3	0.27	17	0.54	5	0.39
81-90	25	0.81	12	1.07	18	0.57	17	1.34
71-80	31	1.00	8	0.71	18	0.57	7	0.55
61-70	35	1.13	25	2.23	18	0.57	11	0.87
51-60	30	0.97	18	1.61	18	0.57	7	0.55
41-50	22	0.71	13	1.16	15	0.47	7	0.55
31-40	22	0.71	17	1.52	15	0.47	6	0.47
21-30	30	0.97	14	1.25	33	1.04	9	0.71
11-20	50	1.61	17	1.52	43	1.36	13	1.03
1-10	149	4.81	13	1.16	103	3.25	7	0.55
<b>Total</b>	<b>3,097</b>	<b>100.00</b>	<b>1,121</b>	<b>100.00</b>	<b>3,166</b>	<b>100.00</b>	<b>1,266</b>	<b>100.00</b>

Source: BSE, NSE.



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cent of the total turnover. Apart from NSE and BSE, only Calcutta and UPSE recorded some transactions (Table 2.21). All the stock

exchanges have been corporatised and demutualised. Presently, there are 19 demutualised exchanges in the country. The

**Table 2.21: Trading Statistics of Stock Exchanges**

Stock Exchange	Shares Traded (Lakh)		Shares Delivered (Lakh)		Value of Shares Delivered (Rs. crore)	
	2006-07	2007-08	2006-07	2007-08	2006-07	2007-08
1	2	3	4	5	6	7
<b>Recognised Stock Exchanges</b>						
Ahmedabad	Nil	Nil	Nil	Nil	Nil	Nil
BSE	5,60,780 (39.72)	9,86,005 (39.96)	2,29,685 (49.04)	3,61,628 (49.61)	2,97,660 (35.38)	4,76,196 (32.90)
Bangalore	Nil	Nil	Nil	Nil	Nil	Nil
Bhubaneswar	Nil	Nil	Nil	Nil	Nil	Nil
Calcutta	453 (0.03)	298 (0.01)	341 (0.07)	270 (0.04)	541 (0.06)	406 (0.03)
Cochin	Nil	Nil	Nil	Nil	Nil	Nil
Coimbatore	Nil	NA	Nil	NA	Nil	NA
Delhi	Nil	Nil	Nil	Nil	Nil	Nil
Gauhati	Nil	Nil	Nil	Nil	Nil	Nil
ISE	Nil	Nil	Nil	Nil	Nil	Nil
Jaipur	Nil	Nil	Nil	Nil	Nil	Nil
Ludhiana	Nil	Nil	Nil	Nil	Nil	Nil
Madras	5.55	Nil	5.55	Nil	1.46	Nil
MPSE	Nil	Nil	Nil	Nil	Nil	Nil
NSE	8,50,515 (60.24)	14,81,229 (60.03)	2,38,305 (50.88)	3,66,974 (50.35)	5,43,048 (64.54)	9,70,618 (67.07)
OTCEI	Nil	Nil	Nil	Nil	Nil	Nil
Pune	Nil	Nil	Nil	Nil	Nil	Nil
UPSE	151 (0.01)	74 (0.0)	0.05 (0.0)	0.31 (0.0)	0.61 (0.0)	0.49 (0.0)
Vadodara	Nil	Nil	Nil	Nil	Nil	Nil
<b>De-recognised Stock Exchanges</b>						
Hyderabad	40 (0.003)	NA	40 (0.01)	NA	92 (0.01)	NA
Magadh	Nil	NA	Nil	NA	Nil	NA
Mangalore	NA	NA	NA	NA	NA	NA
SKSE	Nil	NA	Nil	NA	Nil	NA
<b>Total</b>	<b>14,11,945</b>	<b>24,67,606</b>	<b>4,68,376</b>	<b>7,28,872</b>	<b>8,41,343</b>	<b>14,47,220</b>

**Note:** Figures in parantheses indicate percentage to total.

Source: Various Stock Exchanges

## Part Two: Review of Trends and Operations

three exchanges which did not comply with the process have been de-recognised viz., Hyderabad, Magadh and SKSE.

The activities in the regional stock exchanges are limited to trading by their subsidiaries which have taken up

membership of BSE and NSE. All the subsidiaries recorded growth in turnover except that of Delhi SE and ISE (Table 2.22). On the whole, consolidated turnover of these subsidiaries of all stock exchanges recorded a rise of 27.0 per cent over the previous year.

**Table 2.22: Turnover of Subsidiaries of Stock Exchanges**

Stock Exchange	No. of Subsidiary/ies	Name of the Subsidiary	Turnover of Subsidiary (Rs. crore)		Percentage Variation
			2006-07	2007-08	
1	2	3	4	5	6
Ahmedabad	1	ASE Capital Markets Ltd.	19,536	24,991	27.92
BSE	Nil	Nil	Nil	Nil	Nil
Bangalore	1	BgSE Financials Ltd.	18,604	29,452	58.31
Bhubaneswar	1	Bhubaneswar Shares and Securities Ltd.	Nil	Nil	Nil
Calcutta	Nil	Nil	Nil	Nil	Nil
Cochin	1	Cochin Stock Brokers Ltd.	4,153	7,122	71.49
Coimbatore	1	CSX Securities Ltd.	Nil	NA	Nil
Delhi	1	DSE Financial Services Ltd.	2,668	2,662	-0.22
Gauhati	Nil	Nil	Nil	Nil	Nil
ISE	1	ISE Securities and Services Ltd.	39,061	35,800	-8.35
Jaipur	1	JSEL Securities Ltd.	8,378	11,898	42.01
Ludhiana	1	LSE Securities Ltd.	61,342	98,846	61.14
Madras	1	MSE Financial Services Ltd.	1,517	2,495	64.47
MPSE	1	MPSE Securities Ltd.	2,911	4,513	55.03
NSE	Nil	Nil	Nil	Nil	Nil
OTCEI	1	OTCEI Securities Ltd.	1,284	1,800	40.24
Pune	1	PSE Securities Ltd.	5,806	7,388	27.25
UPSE	1	UPSE Securities Ltd.	2,178	3,124	43.43
Vadodara	1	VSE Stock Services Ltd.	13,785	23,127	67.77
Hyderabad	1	HSE Securities Ltd.	8,691	NA	—
Magadh	1	MSEA Securities Ltd.	Nil	Nil	—
Mangalore	NA	NA	NA	NA	—
SKSE	1	SKSE Securities Ltd.	9,435	NA	—
<b>Total</b>			<b>1,99,348</b>	<b>2,53,218</b>	<b>27.02</b>
<b>Percentage Share in the Total Turnover (Cash + F&amp;O) of All Exchanges</b>			<b>1.93</b>	<b>1.37</b>	

Source: Various Stock Exchanges

However, the total turnover by all subsidiaries (cash and derivatives taken together) constituted 1.4 per cent of the gross turnover of all exchanges in 2007-08 compared to 1.9 per cent in the previous year. In absolute terms, the highest turnover was recorded by LSE Securities Ltd., the subsidiary of Ludhiana stock exchange and VSE Stock Services Ltd., a subsidiary of Vadodara Stock Exchange. On a year-on-year basis, growth in turnover was the highest for Cochin Stock Brokers Ltd., which recorded rise of 71.5 per cent.

Among all the exchanges, NSE has the largest number of brokers followed by BSE, Calcutta and ISE in 2007-08 (Table 2.23). The number of brokers witnessed a rise in BSE, NSE, Ahmedabad, Calcutta and Cochin. On the other hand, there was a decline in the total number of brokers at six stock exchanges viz., UPSE, OTCEI, Madras stock exchange, Jaipur stock exchange, ISE and Bhubaneswar stock exchange. Active brokers as percentage to the total brokers were very less in most of the regional stock exchanges. The active brokers were nil in case of nine regional stock exchanges. There had been concentration and consolidation of the broking industry around BSE and NSE. In fact, at NSE and BSE, the active brokers as percentage to the total brokers were 88.6 per cent and 78.8 per cent, respectively in 2007-08.

## IX. Dematerialisation

To improve operational efficiency of the Indian stock markets, dematerialisation was introduced in the securities markets in 1996. Dematerialisation signifies conversion of share certificates from its physical form to equivalent number of securities in electronic form. Two depositories in India, viz., National Securities Depository Limited (NSDL) and Central Depository Services Limited (CDSL) have set up nation-wide network with proper infrastructure that

handles the securities held and settled in dematerialised mode in the Indian stock markets. The two depositories have put in place, state of the art technology and advance computing, security and storage systems which manage enormous database of transactions in securities. Concerns relating to loss, misplacement, theft and damage etc., of share certificates have disappeared. Elimination of risk of bad delivery and faster transfer of shares have improved the overall efficiency of stock market transactions.

The number of companies signed up for dematerialisation in NSDL rose to 7,354 in 2007-08 from 6,483 in 2006-07 (Table 2.24A). In CDSL, the number of companies signed up increased from 5,589 in 2006-07 to 5,943 in 2007-08. Similarly, the number of dematerialised shares in NSDL went up by 16.9 per cent to 23,68,970 lakh in 2007-08 from 20,27,013 lakh in 2006-07. In CDSL too, the number of shares dematerialised rose significantly by 59.4 per cent to 4,98,200 lakh in 2007-08 from 3,12,500 lakh in 2006-07. In both the depositories, there was a substantial increase in the value of shares settled in dematerialised mode. While in NSDL, the total value of demat settled shares rose substantially by 71.1 per cent to Rs. 14,20,717 crore in 2007-08 from Rs. 8,30,513 crore in 2006-07, the same in CDSL rose by 94.5 per cent from Rs. 1,97,050 crore in 2006-07 to Rs. 3,83,179 crore in 2007-08.

Apart from the shares, dematerialisation trend continued in other instruments like commercial papers and bonds. The total dematerialised value of the commercial papers at CDSL declined in 2007-08 to Rs.980 crore from Rs.1,020 crore in 2006-07 (Table 2.25). However, demat value of commercial papers increased at NSDL from Rs.20,293 crore in 2006-07 to Rs.37,507 crore in 2007-08. There was a considerable increase in the value of bonds dematerialised at NSDL and CDSL in 2007-08 over 2006-07.

Part Two: Review of Trends and Operations

Table 2.23: Status of Brokers with Stock Exchanges

Stock Exchange	Total Number of Stock Brokers		Number of Active Stock Brokers		Active Stock Brokers as Percentage to Total Number of Stock Brokers	
	2006-07	2007-08	2006-07	2007-08	2006-07	2007-08
1	2	3	4	5	6	7
<b>Recognised Stock Exchanges</b>						
Ahmedabad	334	339	0	0	0.00	0.00
Bangalore	242	242	0	0	0.00	0.00
BSE	895	945	703	745	78.55	78.84
Bhubaneswar	197	196	10	12	5.08	6.12
Calcutta	942	943	24	21	2.55	2.23
Cochin	412	417	80	84	19.42	20.14
Coimbatore	133	135	0	NA	0.00	NA
Delhi	379	379	0	0	0.00	0.00
Gauhati	58	58	14	15	24.14	25.86
ISE	835	807	545	559	65.27	69.27
Jaipur	479	472	0	0	0.00	0.00
Ludhiana	293	293	126	120	0.00	40.96
MPSE	178	178	0	0	0.00	0.00
Madras	158	157	2	0	1.27	0.00
NSE	1,017	1,084	914	960	89.87	88.56
OTCEI	790	785	0	0	0.00	0.00
Pune	179	179	0	0	0.00	0.00
UPSE	540	244	127	96	23.52	39.34
Vadodara	290	290	0	0	0.00	0.00
<b>De-recognised Stock Exchanges</b>						
Hyderabad	299	304	51	NA	17.06	NA
Magadh	192	197	0	NA	0.00	NA
Mangalore	59	59	NA	NA	NA	NA
SKSE	399	410	0	NA	0.00	NA

Source: Various Stock Exchanges

The geographical coverage of depository participants (DPs) of NSDL and CDSL also widened in 2007-08. The DPs of NSDL were available at 803 cities in 2007-08 as

compared to 707 cities in 2006-07 (Table 2.26). In case of CDSL, DPs were available at 740 cities in 2007-08 as compared to 529 cities in 2006-07.

**Table 2.24: Depository Statistics: Equity Shares\***

Particulars	NSDL		CDSL	
	2006-07	2007-08	2006-07	2007-08
1	2	3	4	5
Companies Signed up (Nos.)	6,483	7,354	5,589	5,943
Companies Available for Demat (Nos.)	6,483	7,354	5,589	5,943
Demat: Quantity of Shares (lakh)	20,27,013	23,68,970	3,12,500	4,98,200
Total No. of Shares Settled in Demat (lakh)	4,52,450	6,99,286	1,70,899	3,26,668
Total Value of Shares Settled in Demat (Rs. crore)	8,30,513	14,20,717	1,97,050	3,83,179
Market Capitalisation of Companies in Demat (Rs. crore)	35,98,842	52,19,720	33,89,445	51,62,637

\* As on March 31 of respective year

Source: NSDL, CDSL.

**Table 2.25: Depository Statistics: Debentures / Bonds and Commercial Papers \***

Particulars	Debentures / Bonds				Commercial Papers			
	2006-07		2007-08		2006-07		2007-08	
	NSDL	CDSL	NSDL	CDSL	NSDL	CDSL	NSDL	CDSL
1	2	3	4	5	6	7	8	9
No. of Issuers	449	367	450	257	78	78	100	20
No. of Active Instruments	6,849	4,389	6,985	4,392	352	80	542	80
Demat Value (Rs. crore)	3,86,396	6,090	4,70,049	22,715	20,293	1,020	37,507	980

\* As on March 31 of respective year.

Source: NSDL, CDSL.

**Table 2.26: Cities according to Number of DP Locations: Geographical Spread**

No. of DP Locations	NSDL		CDSL	
	2006-07	2007-08	2006-07	2007-08
1	2	3	4	5
1-10	621	688	467	650
11-20	43	57	33	43
21-50	27	41	16	30
51-100	8	8	6	6
> 100	8	9	7	11
<b>Total</b>	<b>707</b>	<b>803</b>	<b>529</b>	<b>740</b>

**Note:** The number of DP locations at CDSL, includes locations that have back office connected centres of the DPs.

Source: NSDL, CDSL.

## X. Derivatives Market in India

### A. Trends in Derivative Market

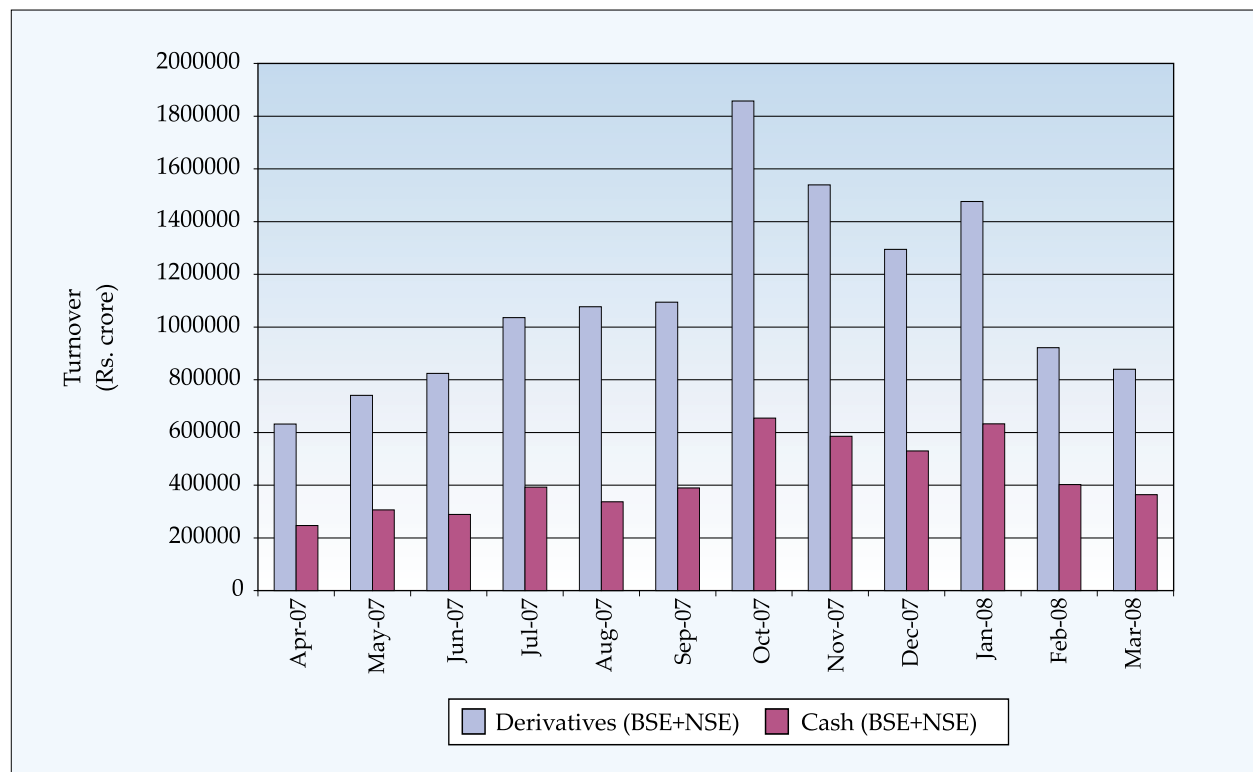
Introduction of exchange traded derivatives is one of the significant developments in the history of India's securities market. In India, derivatives trading began with the launch of index futures in June 2000 followed by index options, single stock options and single stock futures in 2001. Interest rate futures were also launched in June 2003. The two premier stock exchanges, namely NSE and BSE provide trading platforms for derivative.

Over the years, turnover on the derivative market has grown exponentially in terms of the number of contracts and value. This trend continued in 2007-08 too. Presently, the derivatives market in India is dominated by NSE with its share of over 98 per cent in the total turnover as well as number of contracts. There had been revival of derivatives trading at BSE since 2006-07, which continued in 2007-08 also.

The total turnover in the derivative segments surpassed the combined turnover in the cash segment of both BSE and NSE since early 2004. During 2007-08, the turnover of derivatives market was higher by 259.9 per cent of the combined cash market turnover of BSE and NSE (Chart 2.9).

There was a steady increase in derivatives turnover during 2007-08, except marginal fall in few months (Table 2.27). The highest turnover was recorded in October 2007, when the percentage rise in the turnover over the previous month was 69.7 per cent. This was followed by November 2007 and January 2008 when the monthly turnover growth rate was 25.6 per cent and 17.2 per cent, respectively. The average daily turnover in the derivative segment has also risen significantly during the recent years. The average daily turnover in 2007-08 rose by 78.4 per cent to Rs. 53,119 crore compared to Rs.29,780 crore in 2006-07. Open interest increased by 26.5 per cent to Rs. 48,974 crore

Chart 2.9: Derivatives Turnover vis-a-vis Cash Market Turnover (2007-08)



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at the end of 2007-08 compared to Rs. 38,723 crore a year ago.

The total number of contracts traded in the derivative segment of NSE rose by 96.0 per cent to 42,50,13,200 in 2007-08 from 21,68,83,573 in 2006-07 whereas at BSE, the number of contracts traded rose by 318.4 per cent to 74,53,371 in 2007-08 from 17,81,220 in 2006-07. The value of the contracts traded in the derivative segment of NSE increased by 77.9 per cent to Rs. 1,30,90,478 crore in 2007-08 from Rs. 73,56,271 crore in 2006-07, whereas the turnover at the derivatives

segment of BSE rose by 310.6 per cent to Rs.2,42,309 crore in 2007-08 from Rs.59,007 crore in 2006-07.

Product-wise share in the turnover of the derivatives segment of NSE indicates that futures are more popular than options in India (Table 2.28). About 57.7 per cent of the total derivatives turnover was contributed by the single stock futures, followed by index futures (29.2 per cent) in 2007-08 (Chart 2.10). The share of index options stood at 10.4 per cent and stock options 2.7 per cent. Month-wise trend shows that there has been a steady

**Table 2.27: Trends in Turnover and Open Interest in Derivatives at NSE and BSE**

Year / Month	Total				Open Interest at the End of the Year / Month			
	No. of Contracts		Turnover (Rs. crore)		No. of Contracts		Notional Turnover (Rs. crore)	
	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE
1	2	3	4	5	6	7	8	9
2003-04	5,68,86,776	3,82,258	21,30,649	12,452	2,35,792	35	7,187	1
2004-05	7,70,17,185	5,31,719	25,47,053	16,112	5,92,646	0	21,052	0
2005-06	15,76,19,271	203	48,24,250	9	10,28,003	0	38,469	0
2006-07	21,68,83,573	17,81,220	73,56,271	59,007	17,91,387	408	38,710	13
2007-08	42,50,13,200	74,53,371	1,30,90,478	2,42,309	22,82,671	3,175	48,900	74
Apr-07	2,65,40,967	4,83,332	6,16,287	15,585	19,20,554	900	44,788	31
May-07	2,83,83,804	4,94,245	7,23,443	17,016	19,51,805	1,648	48,547	59
Jun-07	3,07,31,428	5,08,258	8,06,542	17,755	23,74,681	3,956	61,240	144
Jul-07	3,47,37,234	5,64,606	10,15,077	20,445	29,19,939	3,488	77,808	134
Aug-07	4,02,35,925	5,54,657	10,56,731	20,011	24,53,447	1,265	64,726	47
Sep-07	3,41,19,312	5,37,551	10,72,889	21,503	24,04,696	2,654	73,827	115
Oct-07	4,93,85,474	5,19,574	18,33,663	23,985	22,96,413	1,270	84,766	63
Nov-07	3,55,21,913	4,58,249	15,17,304	22,268	22,07,723	904	84,567	49
Dec-07	3,02,53,304	6,78,810	12,74,230	20,314	33,68,846	2,205	1,06,015	111
Jan-08	4,47,30,463	10,08,630	14,53,881	22,283	24,33,965	6,835	60,072	190
Feb-08	3,31,85,704	8,55,792	8,99,217	22,564	26,23,872	2,133	63,618	55
Mar-08	3,71,87,672	7,89,667	8,21,215	18,579	22,82,671	3,175	48,900	74

Source: BSE, NSE.



## Part Two: Review of Trends and Operations

increase in the share of index futures in the last quarter of the year. In March 2008, share of index futures in the total turnover surpassed that of single stock futures for the first time.

Though in the developed markets, stock options are the single largest trading instrument, in India, single stock futures continued to remain the most popular derivative product. In fact, NSE continued to remain the largest market for single stock futures in the world.

As indicated earlier, the open interest in the derivative segment rose significantly by 26.5 per cent to Rs. 48,974 crore at the end of 2007-08 from Rs. 38,723 crore at the end of March 2007. Product-wise share in the open interest shows that the notional value of outstanding contracts was the highest for single stock futures (Rs.21,143 crore), followed by index futures (Rs.15,557 crore), index options (Rs.11,636 crore) and stock

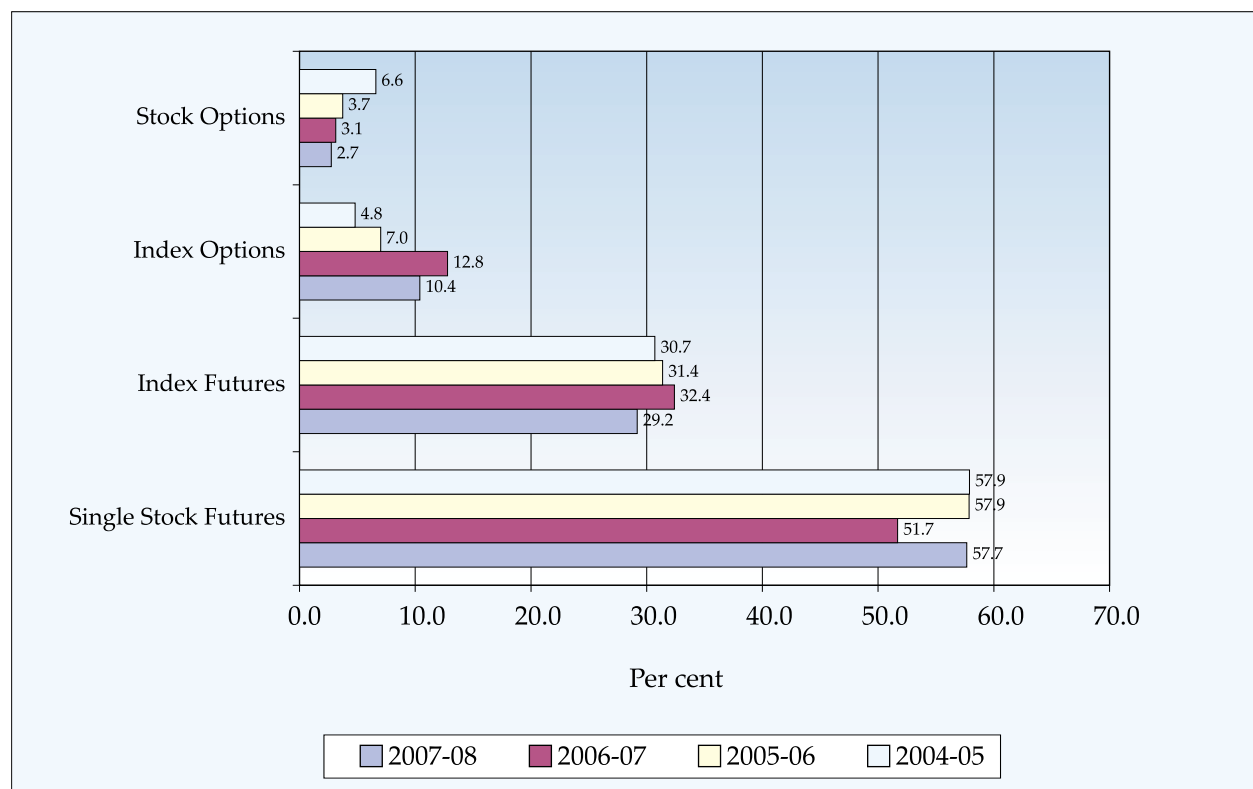
options (Rs.636 crore). The tables 2.29 to 2.32 show the product-wise trends in the derivative market in India during the recent years.

### B. Membership of Derivatives Segment

There was a significant rise in registration of various types of membership for derivative segment at NSE. The number of members increased to 964 as on March 31, 2008 from 882 in the previous year (Table 2.33). Out of the total, there were 510 trading members at the end of 2007-08 compared to 491 a year ago. There were 198 trading-cum-clearing members and 237 trading-cum-self clearing members at NSE as on March 31, 2008. At BSE, there were 298 trading members and 99 trading-cum-clearing members at the end of March 2008.

The transactions undertaken by trading-cum-clearing members constituted 57.6 per cent of the total turnover of the F&O segment

**Chart 2.10: Product-wise Share in Turnover (2007-08)**



**Table 2.28: Product-wise Derivatives Turnover at NSE**

(Per cent)

Year / Month	Index Futures	Index Options	Single Stock Options	Single Stock Futures	Total
1	2	3	4	5	6
2003-04	26.02	2.48	10.19	61.29	100.0
2004-05	30.32	4.79	6.63	58.27	100.0
2005-06	31.38	7.02	3.74	57.87	100.0
2006-07	34.52	10.77	2.63	52.08	100.0
2007-08	29.19	10.41	2.74	57.66	100.0
Apr-07	33.34	15.76	2.77	48.13	100.0
May-07	29.65	11.81	3.23	55.30	100.0
Jun-07	29.86	11.47	2.72	55.96	100.0
Jul-07	23.50	9.32	3.41	63.77	100.0
Aug-07	34.44	13.34	3.07	49.15	100.0
Sep-07	23.90	10.06	3.49	62.54	100.0
Oct-07	26.45	9.49	2.96	61.09	100.0
Nov-07	24.09	7.71	3.01	65.19	100.0
Dec-07	22.55	8.10	2.65	66.71	100.0
Jan-08	31.00	8.17	2.28	58.55	100.0
Feb-08	39.17	12.26	1.66	46.91	100.0
Mar-08	43.83	14.65	1.28	40.23	100.0

Source: NSE.

**Table 2.29: Trends in Index Futures at NSE and BSE**

Year / Month	No. of Contracts		Turnover (Rs. crore)		Open Interest at the End of the Year / Month			
					No. of Contracts		Notional Value (Rs. crore)	
	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE
1	2	3	4	5	6	7	8	9
2003-04	1,71,91,668	2,46,443	5,54,463	6,572	37,495	17	1,305	0.48
2004-05	2,16,35,449	3,08,950	7,72,174	13,600	93,468	0	3,791	0.00
2005-06	5,85,37,886	89	15,13,791	5	2,46,281	0	8,397	0.00
2006-07	8,14,87,424	16,38,779	25,39,575	55,491	6,50,893	402	12,453	13.00
2007-08	15,65,98,579	71,57,078	38,20,667	2,34,660	6,70,209	3,138	15,484	73.44
Apr-07	1,03,83,282	4,28,036	2,05,458	14,385	6,29,192	840	12,885	29.22
May-07	1,02,19,149	4,44,174	2,14,523	15,764	5,87,349	1,587	12,659	57.59
Jun-07	1,14,07,865	4,62,258	2,40,797	16,566	6,96,427	3,883	15,115	14.21
Jul-07	1,06,05,483	4,78,325	2,38,577	18,211	8,39,251	3,396	19,058	13.18
Aug-07	1,70,52,495	5,09,557	3,63,988	18,784	7,01,905	1,168	15,700	44.59
Sep-07	1,09,04,564	5,35,169	2,56,470	21,431	6,70,868	2,627	16,918	11.39
Oct-07	1,78,42,671	5,18,986	4,85,079	23,962	5,88,346	1,230	17,367	61.14
Nov-07	1,26,68,280	4,53,732	3,65,564	21,960	5,76,739	707	16,634	34.54
Dec-07	96,09,209	6,78,222	2,87,357	20,293	6,83,514	2,108	20,940	10.79
Jan-08	1,61,48,838	10,06,619	4,50,657	22,235	7,75,734	5,173	19,669	15.72
Feb-08	1,40,64,211	8,53,383	3,52,226	22,515	8,64,391	2,003	22,263	51.47
Mar-08	1,56,92,532	7,88,617	3,59,970	18,553	6,70,209	3,138	15,484	73.44

Source: BSE, NSE.

Part Two: Review of Trends and Operations

Table 2.30: Trends in Single Stock Futures at NSE and BSE

Year / Month	No. of Stocks		No. of Contracts		Turnover (Rs. crore)		Open Interest at the End of the Year / Month			
							No. of Contracts		Notional Value (Rs. crore)	
	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE
1	2	3	4	5	6	7	8	9	10	11
2003-04	53	44	3,23,68,842	1,28,193	13,05,949	5,171	1,53,854	18	4,492	0.58
2004-05	53	46	4,70,43,066	6,725	14,84,067	213	3,14,806	46	10,366	0.00
2005-06	116	76	8,09,05,493	12	27,91,721	0.48	6,25,926	0	24,670	0.00
2006-07	155	89	10,49,55,401	1,42,433	38,30,972	3,516	7,39,380	6	18,513	0.14
2007-08	228	3	20,35,87,952	2,95,117	75,48,563	7,609	10,86,267	37	21,143	0.97
Apr-07	155	4	1,06,47,866	55,296	2,96,629	1,200	8,02,410	60	21,623	1.43
May-07	186	3	1,33,50,667	50,068	4,00,096	1,252	9,51,052	61	26,881	1.64
Jun-07	187	3	1,42,87,983	45,222	4,51,314	1,161	11,45,596	73	34,267	1.88
Jul-07	191	13	1,88,88,008	86,279	6,47,356	2,234	13,07,071	92	40,513	2.59
Aug-07	195	6	1,57,98,351	45,098	5,19,385	1,227	11,46,396	97	35,038	2.77
Sep-07	207	6	1,76,53,654	2,382	6,70,968	72	11,69,844	27	42,146	0.84
Oct-07	208	3	2,40,08,470	587	11,20,263	23	11,95,329	40	50,905	1.67
Nov-07	224	4	1,80,33,294	4,517	9,89,113	307	13,14,926	197	58,146	14.01
Dec-07	225	3	1,65,65,236	578	8,49,997	20	22,79,919	97	72,530	2.99
Jan-08	224	3	2,37,36,610	2,011	8,51,213	47	13,70,568	1662	33,044	32.68
Feb-08	228	4	1,44,91,601	2,409	4,21,838	50	13,79,669	130	31,572	3.20
Mar-08	228	3	1,61,26,212	670	3,30,390	16	10,86,267	37	21,143	0.97

Source: BSE, NSE.

Table 2.31: Trends in Index Options at NSE and BSE

Year / Month	No. of Contracts		Turnover (Rs. crore)		Open Interest at the End of the Year / Month			
					No. of Contracts		Notional Value (Rs. crore)	
	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE
1	2	3	4	5	6	7	8	9
2003-04	17,32,414	1	52,823	0.03	14,664	0	519	0.00
2004-05	32,93,558	75,275	1,21,954	2,297	91,875	0	3,741	0.00
2005-06	1,29,35,116	100	3,38,469	3.20	1,28,688	0	4,379	0.00
2006-07	2,51,57,438	2	7,91,913	0.06	3,81,910	0	7,297	0.00
2007-08	5,53,66,038	1,161	13,62,111	39	4,91,593	0	11,636	0.00
Apr-07	48,74,462	0	97,150	0	4,40,354	0	9,001	0
May-07	40,55,682	0	85,465	0	3,91,616	0	8,412	0
Jun-07	43,40,991	778	92,503	28	4,92,950	0	10,644	0
Jul-07	42,21,585	1	94,561	0.04	6,98,620	0	15,820	0
Aug-07	64,39,679	1	1,40,961	0.04	5,61,001	0	12,522	0
Sep-07	46,20,426	0	1,07,965	0	5,19,219	0	13,036	0
Oct-07	64,07,789	1	1,73,992	0.04	4,41,935	0	13,039	0
Nov-07	40,08,708	0	1,16,952	0	2,80,800	0	8,091	0
Dec-07	34,29,425	0	1,03,165	0	3,35,577	0	10,300	0
Jan-08	39,76,465	0	1,18,827	0	2,74,826	0	7,059	0
Feb-08	41,19,577	0	1,10,251	0	3,50,925	0	9,164	0
Mar-08	48,71,249	380	1,20,318	10	4,91,593	0	11,636	0

Source: BSE, NSE

Table 2.32: Trends in Stock Options at NSE and BSE

Year / Month	No. of Stocks		No. of Contracts		Turnover (Rs. crore)		Open Interest at the End of the Year / Month			
							No. of Contracts		Notional Value (Rs. crore)	
	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE	NSE	BSE
1	2	3	4	5	6	7	8	9	10	11
2003-04	53	44	55,83,071	7,621	2,17,212	332	29,779	0	871	0
2004-05	53	46	50,45,112	89	1,68,858	3	92,497	0	3,154	0
2005-06	116	76	52,40,776	2	1,80,270	0.1	27,108	0	1,024	0
2006-07	155	89	52,83,310	6	1,93,811	0.19	19,204	0	447	0
2007-08	228	0	94,60,631	15	3,59,137	0.3	34,602	0	636	0
Apr-07	155	0	6,35,357	0	17,050	0	48,598	0	1,280	0
May-07	186	2	7,58,306	3	23,358	0.07	21,788	0	596	0
Jun-07	187	0	6,94,589	0	21,928	0	39,708	0	1,214	0
Jul-07	191	1	10,22,158	1	34,582	0.02	74,997	0	2,418	0
Aug-07	195	1	9,45,400	1	32,398	0.03	44,145	0	1,466	0
Sep-07	207	0	9,40,668	0	37,485	0	44,765	0	1,728	0
Oct-07	208	0	11,26,544	0	54,328	0	70,803	0	3,455	0
Nov-07	224	0	8,11,631	0	45,677	0	35,258	0	1,696	0
Dec-07	225	1	6,49,434	10	33,711	0.2	69,836	0	2,245	0
Jan-08	224	0	8,68,550	0	33,183	0	12,837	0	299	0
Feb-08	228	0	5,10,315	0	14,901	0	28,887	0	618	0
Mar-08	228	0	4,97,679	0	10,536	0	34,602	0	636	0

Source: BSE, NSE.

Table 2.33: Category of Members in Derivatives Segment of NSE and BSE

Type of Members	NSE	BSE
1	3	2
Trading Members	510 (491)	298 (240)
Professional Clearing Members	19 (19)	5 (4)
Trading-cum-Clearing Members	198 (176)	99 (71)
Trading-cum-Self-Clearing Members	237 (196)	20 (9)
<b>Total</b>	<b>964 (882)</b>	<b>422 (324)</b>

Note: Figures in parentheses relate to 2006-07.

Source: BSE, NSE.

in 2007-08. The percentage share in the traded value by trading-cum-self clearing members and trading members was 25.3 per cent and 17.1 per cent, respectively (Table 2.34).

### 3. DEVELOPMENTS IN BOND MARKET

#### I. Corporate Bond Market

In India, secondary market trading in corporate bonds, like in most other countries, is done over the counter (OTC) between the counterparties directly or through brokers. Once trades are executed, they are reported for information as part of disclosure requirements. During the last financial year, SEBI had permitted BSE and NSE to set up reporting platforms for corporate bonds to

## Part Two: Review of Trends and Operations

**Table 2.34: Shares of Various Classes of Traders/Investors in F&O Turnover at NSE and BSE**

Month	Turnover (Rs. crore)				Percentage Share		
	Trading Members	Trading cum Clearing Members	Trading cum Self Clearing Members	Total	Trading Members	Trading cum Clearing Members	Trading cum Self Clearing Members
1	2	3	4	5	6	7	8
2005-06	24,94,557	49,80,025	21,73,918	96,48,501	25.85	51.61	22.53
2006-07	30,60,253	79,52,147	38,18,532	1,48,30,932	20.63	53.62	25.75
2007-08	45,50,533	1,53,60,489	67,56,714	2,66,67,736	17.06	57.60	25.34
Apr-07	2,25,593	7,62,321	2,75,903	12,63,817	17.85	60.32	21.83
May-07	2,68,773	8,63,022	3,49,177	14,80,972	18.15	58.27	23.58
Jun-07	2,86,443	9,68,904	3,93,260	16,48,607	17.37	58.77	23.85
Jul-07	3,67,431	12,00,523	5,03,434	20,71,388	17.74	57.96	24.30
Aug-07	3,55,478	12,79,163	5,19,016	21,53,657	16.51	59.39	24.10
Sep-07	3,78,585	12,63,553	5,46,867	21,89,004	17.29	57.72	24.98
Oct-07	6,38,465	20,48,345	10,28,691	37,15,502	17.18	55.13	27.69
Nov-07	5,48,208	16,93,133	8,37,974	30,79,314	17.80	54.98	27.21
Dec-07	4,45,197	14,93,686	6,50,493	25,89,375	17.19	57.69	25.12
Jan-08	4,71,590	17,19,628	7,61,354	29,52,573	15.97	58.24	25.79
Feb-08	2,86,582	10,88,534	4,68,737	18,43,853	15.54	59.04	25.42
Mar-08	2,78,190	9,79,677	4,21,807	16,79,674	16.56	58.33	25.11

Source: BSE, NSE.

capture all information related to trading in corporate bonds as accurately and as close to execution as possible. The platforms were put in place since January 01, 2007 and March 01, 2007, by BSE and NSE, respectively. In addition to the existing reporting platforms being operated by BSE and NSE, SEBI granted approval to FIMMDA for starting a similar corporate bond trade reporting platform. The platform subsequently became operational in September 2007.

During 2007-08, secondary market trades (both OTC and exchanges) stood at Rs.96,119 crore (Table 2.35). The amount of trade reported to BSE were the highest at Rs.41,187 crore. The number of trades reported was also the highest at BSE, which constituted

77.9 per cent of the total number of trades. Of the three platforms, the number of corporate bond trades and value of trade reported were the lowest at NSE.

Although there were no public issues of bonds in 2007-08, corporate sector mobilised large amount of resources by way of private placements of corporate bonds.

During 2007-08, issuances of corporate bonds through private placement stood at Rs.1,28,602 crore as reported at BSE & NSE (Table 2.36). On a year on year basis, the total amount reported increased by 22.5 per cent. Of the two exchanges, amount of private placement reported to NSE constituted 76.7 per cent.

Table 2.35: Secondary Market Trades at OTC and Exchanges

Month / Year	BSE		NSE		FIMMDA		Grand Total	
	No. of Trades	Amount (Rs. crore)	No. of Trades	Amount (Rs. crore)	No. of Trades	Amount (Rs. crore)	No. of Trades	Amount (Rs. crore)
1	2	3	4	5	6	7	8	9
Apr-07	2,855	3,898	171	1,177	0	0	3,026	5,075
May-07	2,958	4,157	96	1,221	0	0	3,054	5,378
Jun-07	2,499	3,271	207	1,524	0	0	2,706	4,795
Jul-07	2,581	6,411	833	7,206	0	0	3,414	13,617
Aug-07	1,923	4,275	416	3,045	0	0	2,339	7,320
Sep-07	1,845	2,118	292	2,045	277	1,568	2,414	5,731
Oct-07	2,246	6,219	436	3,579	563	4,421	3,245	14,220
Nov-07	1,815	2,189	229	1,660	444	2,045	2,488	5,894
Dec-07	2,215	2,342	226	1,728	490	2,909	2,931	6,979
Jan-08	2,864	3,244	460	4,740	952	6,563	4,276	14,547
Feb-08	1,773	1,216	260	2,177	632	2,875	2,665	6,269
Mar-08	2,123	1,846	161	1,352	731	3,098	3,015	6,295
<b>Total</b>	<b>27,697</b>	<b>41,187</b>	<b>3,787</b>	<b>31,453</b>	<b>4,089</b>	<b>23,479</b>	<b>35,573</b>	<b>96,119</b>

Source: NSE, BSE and FIMMDA.

**Table 2.36: Private Placement of Corporate Bonds Reported to BSE and NSE**

(Rs. crore)

Month / Year	BSE	NSE	Total
1	2	3	4
2005-06*	21,142	64,087	83,827
2006-07*	35,859	74,659	1,04,974
2007-08	30,024	98,578	1,28,602
Apr-07	2,141	10,251	12,392
May-07	3,957	5,217	9,174
Jun-07	1,209	11,053	12,262
Jul-07	1,209	6,310	7,519
Aug-07	1,058	6,121	7,179
Sep-07	7,959	11,972	19,931
Oct-07	826	5,455	6,281
Nov-07	4,637	8,760	13,397
Dec-07	2,085	3,769	5,854
Jan-08	2,487	13,951	16,438
Feb-08	1,074	6,147	7,221
Mar-08	1,382	9,572	10,954

\* Data adjusted to reflect companies which reported to both BSE and NSE

Source: NSE, BSE.

## II. Indian Wholesale Debt Market (WDM)

The number of trades in the WDM segment of NSE has been witnessing a decline since 2004-05. In 2007-08, the number of trades declined by 17.3 per cent over the previous year. However, the net traded value and average daily traded value increased by 28.9 per cent and 25.6 per cent, respectively during the same period (Table 2.37).

The highest turnover was recorded during January 2008 at Rs. 42,724 crore. The trend in the number of trades in the WDM segment was similar to that of the net traded value. The average traded value increased from Rs. 899 crore in 2006-07 to Rs.1,129 crore in 2007-08.

Instrument-wise break up of the securities traded at the WDM segment of NSE indicates the dominance of Government securities (G-sec) though the share of the G-sec in the traded value declined marginally to 68.8 per cent in 2007-08 from 70.0 per cent

**Table 2.37: Business Growth on the Wholesale Debt Market Segment of NSE**

(Rs. crore)

Month / Year	No. of Trades	Net Traded Value (Rs. crore)	Average Daily Traded Value (Rs. crore)
1	2	3	4
2004-05	1,24,308	8,87,294	3,028
2005-06	61,891	4,75,523	1,755
2006-07	19,575	2,19,106	899
2007-08	16,179	2,82,317	1,129
Apr-07	928	17,159	903
May-07	1,093	17,483	833
Jun-07	1,065	17,335	825
Jul-07	2,089	33,815	1,537
Aug-07	1,230	21,431	1,021
Sep-07	934	16,902	845
Oct-07	1,411	25,493	1,159
Nov-07	1,083	17,704	843
Dec-07	1,585	32,865	1,730
Jan-08	2,359	42,724	1,858
Feb-08	1,497	24,044	1,145
Mar-08	905	15,362	853

Source: NSE.

in 2006-07 (Table 2.38). The share of Treasury bills too, declined from 23.7 per cent in 2006-07 to 23.4 per cent in 2007-08. The percentage share of 'others' which include mainly corporate debt securities, increased marginally from 4.3 per cent in 2006-07 to 4.5 per cent in 2007-08. The share of PSU/institutional bonds also rose from 2.0 per cent in 2006-07 to 3.3 per cent in 2007-08.

Trading members dominated the WDM segment with a share of 38.2 per cent in total turnover in 2007-08 as compared to 30.9 per cent in 2006-07 (Table 2.39). While the share of foreign banks improved to 27.1 per cent in 2007-08, that of Indian banks, financial institutions, mutual funds and primary dealers declined over the previous year. Banks, financial institutions and primary dealers largely trade in the NDS platform rather than in the WDM segment of NSE.

**Table 2.38: Instrument-wise Share of Securities Traded in the Wholesale Debt Market Segment of NSE**

(Per cent)

Month / Year	Govt. Dated Securities	Treasury Bills	PSU / Institutional Bonds	Others
1	2	3	4	5
2004-05	81.69	14.07	2.01	2.23
2005-06	72.67	22.13	2.56	2.64
2006-07	70.00	23.71	2.01	4.28
2007-08	68.84	23.40	3.27	4.49
Apr-07	70.51	25.10	0.96	3.43
May-07	66.38	27.33	1.06	5.23
Jun-07	57.48	35.82	1.48	5.22
Jul-07	66.93	21.47	6.79	4.81
Aug-07	66.23	24.99	4.15	4.63
Sep-07	73.56	19.39	2.17	4.88
Oct-07	46.15	44.05	5.00	4.80
Nov-07	61.65	31.33	2.57	4.45
Dec-07	79.99	16.94	0.96	2.11
Jan-08	75.09	14.87	3.79	6.25
Feb-08	79.08	13.49	4.19	3.24
Mar-08	73.92	19.12	2.61	4.35

Source: NSE.



Table 2.39: Share of Participants in Turnover of Wholesale Debt Market Segment of NSE

(Per cent)

Month	Trading Members	FIs / MFs / Corporates	Primary Dealers	Indian Banks	Foreign Banks
1	2	3	4	5	6
2004-05	33.96	5.14	18.50	29.90	12.50
2005-06	32.01	3.92	21.89	28.07	14.11
2006-07	30.88	2.69	19.82	26.03	20.57
2007-08	38.15	2.34	8.64	23.78	27.09
Apr-07	30.34	1.86	16.91	28.04	22.85
May-07	40.84	0.77	11.22	23.69	23.48
Jun-07	38.07	1.56	12.96	27.77	19.64
Jul-07	40.23	3.40	12.27	27.42	16.68
Aug-07	45.76	2.83	7.62	19.07	24.72
Sep-07	45.38	2.00	5.25	22.34	25.03
Oct-07	48.56	1.56	5.54	23.76	20.58
Nov-07	41.50	1.91	6.99	17.03	32.57
Dec-07	32.37	2.41	7.19	25.76	32.27
Jan-08	37.81	2.87	7.03	22.07	30.22
Feb-08	29.95	3.15	7.75	25.15	34.00
Mar-08	25.77	1.78	4.85	20.95	46.65

Source: NSE.

#### 4. MUTUAL FUNDS

The mutual funds have emerged as one of the important class of financial intermediaries which generally cater to the investment needs of retail investors. Mutual funds pool savings of households and other investors and invest in different instruments such as shares, bonds, debentures and other securities.

Over the years, resource mobilisation by mutual funds has grown significantly higher which reflect investor confidence in them and they provide opportunities of investment in a diversified portfolio managed by professional fund managers. The gross mobilisation of resources by all mutual funds during 2007-08 stood at Rs. 44,64,376 crore

compared to Rs. 19,38,493 crore during the previous year indicating an increase of 130.3 per cent over the previous year (Table 2.40). Redemption also rose by 133.7 per cent to Rs. 43,10,575 crore in 2007-08 from Rs. 18,44,508 crore in 2006-07. The net mobilisation of resources by all mutual funds was Rs. 1,53,802 crore in 2007-08 compared to Rs.93,985 crore in 2006-07, a rise of 63.6 per cent. The assets under management by all mutual funds increased by 54.8 per cent to Rs. 5,05,152 crore at the end of March 2008 from Rs. 3,26,292 crore over the previous year.

The private sector mutual funds, as in the previous years, continued to dominate resource mobilisation efforts during 2007-08.

## Part Two: Review of Trends and Operations

**Table 2.40: Mobilisation of Resources by Mutual Funds**

(Rs. crore)

Period	Gross Mobilisation	Redemption	Net Inflow	Assets at the End of Period
1	2	3	4	5
1999-00	61,241	42,271	18,970	1,07,946
2000-01	92,957	83,829	9,128	90,587
2001-02	1,64,523	1,57,348	7,175	1,00,594
2002-03	3,14,706	3,10,510	4,196	1,09,299
2003-04	5,90,190	5,43,381	46,808	1,39,616
2004-05	8,39,708	8,37,508	2,200	1,49,600
2005-06	10,98,149	10,45,370	52,779	2,31,862
2006-07	19,38,493	18,44,508	93,985	3,26,292
2007-08	44,64,376	43,10,575	1,53,802	5,05,152

Of the net resources mobilised by all mutual funds, the private sector mutual funds accounted for 86.7 per cent, followed by the UTI Mutual Fund (6.9 per cent) and public sector mutual funds (6.4 per cent) (Table 2.41). The share of private sector mutual funds in the gross mobilisation of resources also increased significantly in 2007-08 over the previous year.

Gross mobilisation of resources under open-ended schemes during 2007-08 was Rs. 43,37,041 crore, of which, about 84.9 per cent was raised by the private sector mutual funds. Similarly, gross resources mobilised under close-ended schemes stood at Rs. 1,27,334 crore in 2007-08, of which private sector accounted for 78.3 per cent.

**Table 2.41: Sector-wise Resource Mobilisation by Mutual Funds during 2007-08**

(Rs. crore)

Particulars	Private Sector MFs			Public Sector MFs			UTI MF			Grand Total
	Open-ended	Close-ended	Total	Open-ended	Close-ended	Total	Open-ended	Close-ended	Total	
1	2	3	4	5	6	7	8	9	10	11
<b>Mobilisation of Funds</b>	36,81,070 (14,82,588)	99,682 (1,17,286)	37,80,753 (15,99,874)	3,21,187 (1,85,500)	16,311 (10,840)	3,37,498 (1,96,340)	3,34,784 (1,32,070)	11,341 (10,210)	3,46,126 (1,42,280)	44,64,377 (19,38,493)
<b>Repurchases/ Redemption Amount</b>	35,60,004 (14,62,528)	87,445 (58,308)	36,47,449 (15,20,836)	3,16,803 (1,82,981)	10,875 (5,738)	3,27,678 (1,88,719)	3,26,781 (1,30,749)	8,667 (4,204)	3,35,448 (1,34,954)	43,10,575 (18,44,508)
<b>Net Inflow/ Outflow of Funds</b>	1,21,066 (20,060)	12,238 (58,978)	1,33,304 (79,038)	4,384 (2,519)	5,436 (5,102)	9,820 (7,621)	8,003 (1,321)	2,674 (6,005)	10,677 (7,326)	1,53,802 (93,985)

**Note:** Figures in the parentheses pertain to 2006-07.

Table 2.42: Scheme-wise Resource Mobilisation and Assets under Management by Mutual Funds during 2007-08

Schemes	No. of Schemes	Gross Funds Mobilised (Rs. crore)	Repurchase/ Redemption (Rs. crore)	Net Inflow/ Outflow of Funds (Rs. crore)	Cumulative Assets under Management as on March 31, 2008 (Rs. crore)	Percentage Variation over March 31, 2007
1	2	3	4	5	6	7
<b>A. Income / Debt Oriented Schemes</b>	593 (450)	43,17,263 (18,39,668)	42,13,396 (17,75,601)	1,03,867 (64,067)	3,12,997 (1,93,585)	61.68 (54.98)
<i>of which</i>						
i. Liquid / Money Market	58	34,32,737	34,17,761	14,976	89,402	24.16
ii. Gilt	30	3,180	2,746	434	2,833	25.52
iii. Debt	505	8,81,346	7,92,889	88,457	2,20,762	85.01
<b>B. Growth / Equity Oriented Schemes</b>	313 (267)	1,26,286 (94,351)	79,353 (66,145)	46,933 (28,206)	1,72,742 (1,23,597)	39.76 (24.27)
<i>of which</i>						
i. Equity Linked Saving Scheme	43	6,448	297	6,151	16,020	56.87
ii. Others	270	1,19,839	79,056	40,782	1,56,722	38.22
<b>C. Balanced Schemes</b>	37 (38)	11,488 (4,473)	5,720 (2,762)	5,768 (1,711)	16,283 (9,110)	78.74 (21.58)
<b>D. Exchange Traded Fund</b>	13	9,339	12,106	-2,767	3,130	-
Gold ETF	5	433	156	276	483	-
Other ETFs	8	8,906	11,950	-3,043	2,647	-
<b>TOTAL (A+B+C+D)</b>	956 (755)	44,64,376 (19,38,493)	43,10,575 (18,44,508)	1,53,802 (93,985)	5,05,152 (3,26,292)	54.82 (40.73)

Note: Figures in parentheses relate to 2006-07.

Scheme-wise pattern reveals the domination of income/debt oriented schemes in total resource mobilisation during 2007-08 (Table 2.42). The net amount mobilised by income / debt oriented schemes was Rs.1,03,867 crore which constituted 67.5 per cent of the total net mobilisation. Within the income/debt oriented schemes, the highest share was contributed by debt oriented schemes followed by money market schemes. However, the gross mobilisation and gross

redemption were substantially higher for liquid/money market schemes than other schemes. In consistence with buoyancy in the stock market, the net inflow of funds was higher for growth/ equity oriented schemes at Rs.46,933 crore in 2007-08 compared to Rs.28,206 core in 2006-07, a rise of 66.4 per cent.

There were 956 mutual fund schemes as on March 31, 2008, of which, 593 were income/debt oriented schemes, 313 were

## Part Two: Review of Trends and Operations

growth/equity oriented schemes and 37 were balanced schemes (Table 2.43). In addition, there were 13 Exchange Traded Funds, of which five were GETFs. Among the different mutual fund schemes, open-ended schemes appeared to be the most preferred choice of investors in India. There were 592 open-ended schemes and 364 close-ended schemes as on March 31, 2008. Of the 364 close ended schemes, 296 were debt oriented schemes, 62 were growth/equity oriented schemes and 6 balanced schemes.

The total assets under management (AUM) of all the mutual funds rose substantially by 54.8 per cent to Rs. 5,05,152 crore at the end of March 31, 2008 from Rs.3,26,292 crore a year ago. There was a significant rise in the assets managed by all categories of schemes in 2007-08. The AUM

was the highest for income/debt oriented schemes at Rs. 3,12,997 crore while the AUM under growth / equity oriented scheme was Rs. 1,72,742 crore. In terms of growth in AUM, balanced schemes (78.7 per cent) achieved the highest increase followed by income/debt oriented schemes (61.7 per cent) and growth/equity oriented (39.8 per cent) schemes during the year.

The mutual funds have been the major investors in the debt segment of the Indian securities market. However since 2005-06, there has been an increasing trend in their participation in the equity segment. During 2007-08, the combined net investments by the mutual funds in debt and equity was Rs. 90,095 crore compared to Rs.61,606 crore in 2006-07, an increase of 46.2 per cent (Table 2.44). The net investments in the equity

**Table 2.43: Number of Schemes by Investment Objectives\***

Schemes	Open-ended	Close-ended	Total
1	2	3	4
<b>A. Income / Debt Oriented Schemes</b>	<b>297</b>	<b>296</b>	<b>593</b>
	<b>(216)</b>	<b>(234)</b>	<b>(450)</b>
i. Liquid/Money Market	58	0	58
ii. Gilt	30	0	30
iii. Debt (other than assured return)	209	296	505
iv. Debt (assured return)	0	0	0
<b>B. Growth / Equity Oriented Schemes</b>	<b>251</b>	<b>62</b>	<b>313</b>
	<b>(235)</b>	<b>(32)</b>	<b>(267)</b>
i. Equity Linked Saving Scheme	30	13	43
ii. Others	221	49	270
<b>C. Balanced Schemes</b>	<b>31</b>	<b>6</b>	<b>37</b>
	<b>(34)</b>	<b>(4)</b>	<b>(38)</b>
<b>D. Exchange Traded Fund</b>	<b>13</b>	<b>0</b>	<b>13</b>
Gold ETF	5	0	5
Other ETFs	8	0	8
<b>TOTAL (A+B+C+D)</b>	<b>592</b>	<b>364</b>	<b>956</b>
	<b>(485)</b>	<b>(270)</b>	<b>(755)</b>

\* As on March 31 of respective year.

**Note:** Figures in parentheses relate to 2006-07.

Table 2.44: Trends in Transactions on Stock Exchanges by Mutual Funds

(Rs. crore)

Year / Month	Equity			Debt			Total		
	Gross Purchase	Gross Sales	Net Purchase/Sales	Gross Purchase	Gross Sales	Net Purchase/Sales	Gross Purchase	Gross Sales	Net Purchase/Sales
1	2	3	4	5	6	7	8	9	10
2004-05	45,045	44,597	448	62,186	45,199	16,987	1,07,232	89,796	17,435
2005-06	1,00,436	86,134	14,302	1,09,805	73,004	36,801	2,10,241	1,59,137	51,103
2006-07	1,35,948	1,26,886	9,062	1,53,733	1,01,190	52,543	2,89,681	2,28,075	61,606
2007-08	2,17,578	2,01,274	16,306	2,98,605	2,24,816	73,790	5,16,183	4,26,090	90,095
Apr-07	12,216	11,185	1,032	15,986	12,859	3,127	28,202	24,043	4,159
May-07	15,436	13,529	1,907	23,912	14,678	9,235	39,349	28,207	11,142
Jun-07	12,196	10,983	1,213	25,282	16,328	8,953	37,477	27,311	10,167
Jul-07	16,892	17,793	-901	29,859	17,054	12,805	46,751	34,847	11,904
Aug-07	16,676	12,582	4,094	20,839	16,480	4,359	37,515	29,062	8,453
Sep-07	15,847	16,611	-764	24,510	14,797	9,714	40,357	31,407	8,950
Oct-07	23,221	24,936	-1,715	33,058	20,968	12,091	56,279	45,903	10,375
Nov-07	19,329	17,160	2,170	17,915	25,031	-7,116	37,245	42,191	-4,946
Dec-07	20,745	17,721	3,024	17,744	16,456	1,288	38,489	34,176	4,313
Jan-08	32,721	25,019	7,703	26,139	30,760	-4,622	58,860	55,779	3,081
Feb-08	16,752	16,238	514	25,413	13,340	12,073	42,165	29,578	12,587
Mar-08	15,548	17,519	-1,971	37,948	26,066	11,882	53,496	43,585	9,911

market was Rs.16,306 crore in 2007-08 compared to Rs.9,062 crore in 2006-07, an increase of 79.9 per cent, whereas, the net investments in the debt segment rose by 40.4 per cent during the same period. The combined net investment was positive for all the months in 2007-08 except November 2007.

## 5. FOREIGN INSTITUTIONAL INVESTMENT

Emerging markets in general and India in particular, have attracted huge portfolio flows in recent years. India has become an attractive destination for FIIs among the emerging markets since 1992-93. During last three years in particular, there has been a

continuous increase in the investments by FIIs in the Indian securities market. Notwithstanding the signs of global recession and sub-prime crisis, India attracted a sizeable investment from FIIs in 2007-08 as well.

The gross purchases of debt and equity by FIIs increased by 82.1 per cent to Rs. 9,48,020 crore in 2007-08 from Rs. 5,20,508 crore in 2006-07 (Table 2.45). The combined gross sales by FIIs also rose by 80.1 per cent to Rs. 8,81,842 crore from Rs. 4,89,667 crore during the same period. The net investment by FIIs was Rs. 66,179 crore in 2007-08 which was more than double from Rs. 30,840 crore in 2006-07. The cumulative investment by FIIs

Table 2.45: Investment by Foreign Institutional Investors

Year	Gross Purchase (Rs. crore)	Gross Sales (Rs. crore)	Net Investment (Rs. crore)	Net Investment (US \$ mn.)	Cumulative Net Investment (US \$ mn.)
1	2	3	4	5	6
1992-93	17	4	13	4	4
1993-94	5,593	466	5,126	1,634	1,638
1994-95	7,631	2,835	4,796	1,528	3,167
1995-96	9,694	2,752	6,942	2,036	5,202
1996-97	15,554	6,979	8,574	2,432	7,634
1997-98	18,695	12,737	5,957	1,650	9,284
1998-99	16,115	17,699	-1,584	-386	8,898
1999-00	56,856	46,734	10,122	2,339	11,237
2000-01	74,051	64,116	9,934	2,159	13,396
2001-02	49,920	41,165	8,755	1,846	15,242
2002-03	47,061	44,373	2,689	562	15,805
2003-04	1,44,858	99,094	45,765	9,950	25,755
2004-05	2,16,953	1,71,072	45,881	10,172	35,927
2005-06	3,46,978	3,05,512	41,467	9,332	45,259
2006-07	5,20,508	4,89,667	30,840	6,708	51,967
2007-08	9,48,020	8,81,842	66,179	16,040	68,007

at acquisition cost, which was USD 51.9 billion at the end of March 2007, rose to USD 68.0 billion at the end of March 2008 (Chart 2.11).

There has been a significant increase in investment by FIIs in equity since 2003-04. The total net foreign institutional investment in 2007-08 has been the highest in a single year so far. Investment by FIIs in the equity segment rose by 111.6 per cent to Rs.53,404 crore in 2007-08 from Rs.25,236 crore in 2006-07. Their net investment in the debt segment at Rs.12,775 crore was also higher by 128 per cent over Rs.5,605 crore in the previous year (Table 2.46).

Month-wise, the net FII investment in equity segment in July 2007 (Rs.23,872 crore)

which is also the highest ever in a single month so far. FII inflows were particularly strong in the second and third quarter of the year, pushing the benchmark indices to breach new levels (Chart 2.12). In January 2008, the outflow from the equity segment was the highest at Rs.13,036 crore.

The FIIs were permitted to trade in the derivatives market since February 2002. The cumulative FII trading in derivatives was Rs. 2,91,456 crore as on March 31, 2008. Reversing the existing trend, open interest position of FIIs in index futures was the highest at 44.0 per cent by end-March 2008, followed by stock futures (43.2 per cent). The share in index options was 13.1 per cent while the lowest trading was in stock options (0.2 per cent) (Table 2.47).

Chart 2.11: Trends in Foreign Institutional Investment

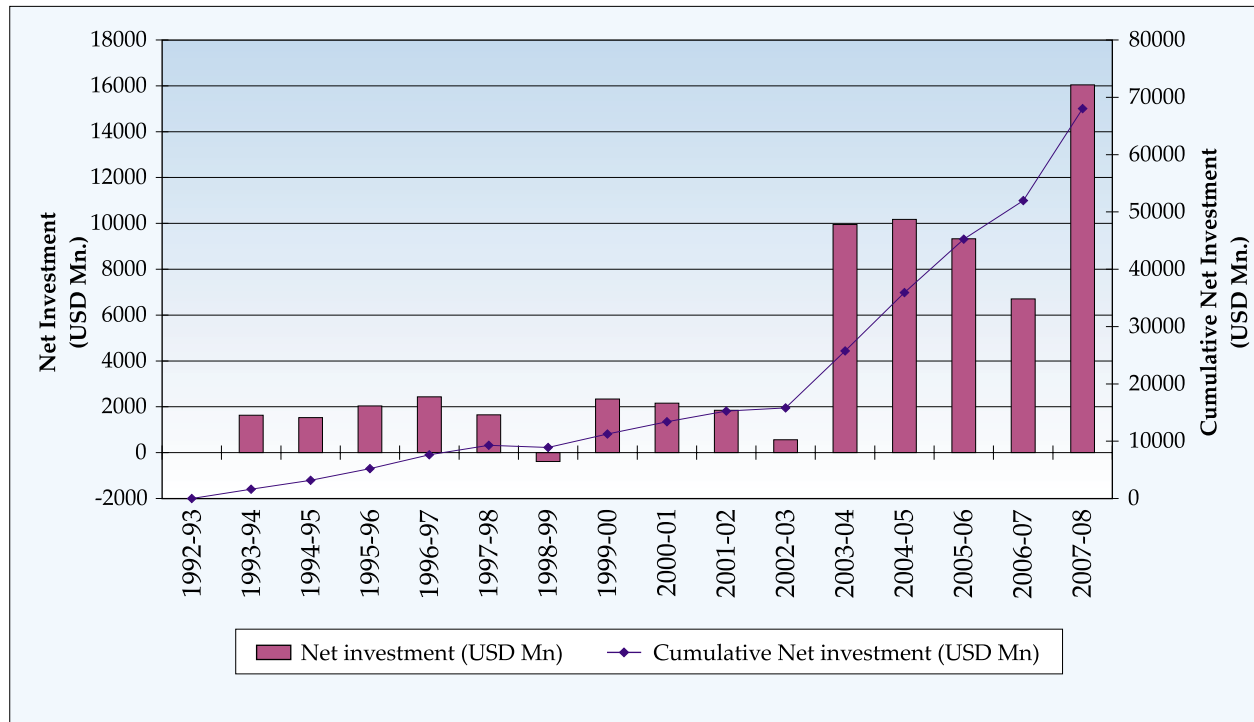


Table 2.46: Investments by Mutual Funds and Foreign Institutional Investors

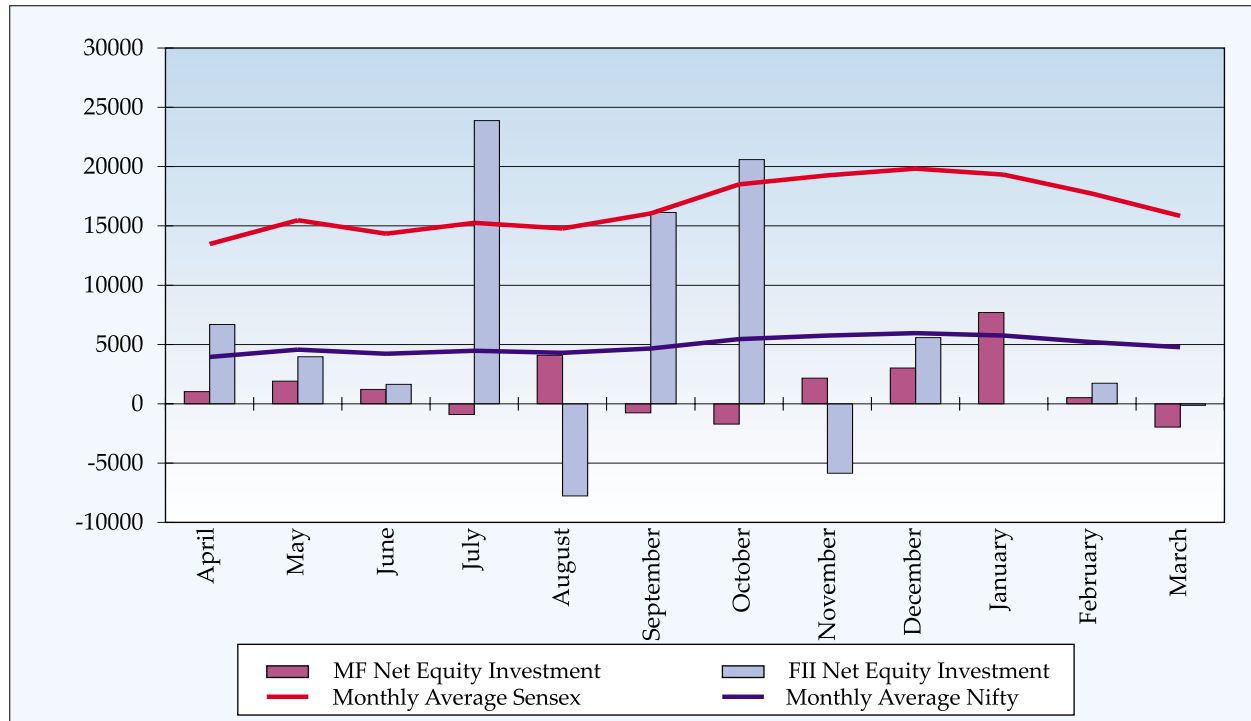
(Rs. crore)

Year / Month	Net Investment by Mutual Funds			Net Investment by FII's		
	Equity	Debt	Total	Equity	Debt	Total
1	2	3	4	5	6	7
2003-04	1,308	22,701	24,009	39,960	5,805	45,765
2004-05	448	16,987	17,435	44,123	1,759	45,881
2005-06	14,303	36,801	51,104	48,801	-7,334	41,467
2006-07	9,062	52,543	61,607	25,236	5,605	30,840
2007-08	16,306	73,790	90,095	53,404	12,775	66,179
Apr-07	1,032	3,127	4,159	6,679	1,042	7,721
May-07	1,907	9,235	11,142	3,960	1,360	5,320
Jun-07	1,213	8,953	10,167	1,643	-541	1,102
Jul-07	-901	12,805	11,904	23,872	-1,263	22,609
Aug-07	4,094	4,359	8,453	-7,771	608	-7,162
Sep-07	-764	9,714	8,950	16,133	2,656	18,788
Oct-07	-1,715	12,091	10,375	20,591	2,500	23,090
Nov-07	2,170	-7,116	-4,946	-5,850	-469	-6,319
Dec-07	3,024	1,288	4,313	5,579	3,312	8,891
Jan-08	7,703	-4,622	3,081	-13,036	1,954	-11,082
Feb-08	514	12,073	12,587	1,733	2,497	4,230
Mar-08	-1,971	11,882	9,911	-130	-880	-1,010



## Part Two: Review of Trends and Operations

**Chart 2.12: Net Institutional Investment and Monthly Average Sensex and Nifty Values**



**Table 2.47: Notional Value of Open Interest of Foreign Institutional Investors in Derivatives**

(Rs. crore)

Items	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08
1	2	3	4	5	6	7	8	9	10	11	12	13
Index Futures	13,408	15,815	14,412	18,421	14,379	14,951	18,504	16,665	21,345	25,975	26,157	18,390
Index Options	4,812	8,833	5,168	9,026	7,586	8,065	8,123	3,645	6,128	12,321	4,537	5,528
Stock Futures	14,162	20,960	19,969	25,408	23,121	27,867	36,165	40,212	51,316	35,368	25,181	18,230
Stock Options	26	126	32	84	51	53	14	4	28	242	31	86
<b>Total</b>	<b>32,408</b>	<b>45,734</b>	<b>39,581</b>	<b>52,940</b>	<b>45,137</b>	<b>50,936</b>	<b>62,806</b>	<b>60,525</b>	<b>78,817</b>	<b>73,906</b>	<b>55,906</b>	<b>42,234</b>
Change in open position	2,859	13,326	-6,154	13,359	-7,802	5,798	11,870	-2,280	18,292	-4,911	-18,000	-13,672
% Change	9.7	41.1	-13.5	33.8	-14.7	12.8	23.3	-3.6	30.2	-6.2	-24.4	-24.5
Cumulative FII Net Investment	2,32,999	2,38,319	2,39,420	2,62,030	2,54,868	2,73,656	2,96,746	2,90,427	2,99,318	2,88,236	2,92,466	2,91,456
Change in FII Investment	7,721	5,320	1,102	22,609	-7,162	18,788	23,090	-6,319	8,891	-11,082	4,230	-1,010
% Change	3.4	2.3	0.5	9.4	-2.7	7.4	8.4	-2.1	3.1	-3.7	1.5	-0.3

## **6. MECHANISMS FOR INTER-REGULATORY CO-ORDINATION**

Various mechanisms were put in place for ensuring effective inter-regulatory co-ordination between various regulators in the financial market. Some of the mechanisms in this regard are provided as under:-

### **I. High Level Co-ordination Committee for Financial Markets (HLCCFM)**

The HLCCFM is a high level coordination committee to discuss various policy level issues which require inter-regulatory co-ordination between the regulators in the financial market, viz., RBI, SEBI, Insurance Regulatory and Development Authority (IRDA) and Pension Fund Regulatory and Development Authority (PFRDA). The Committee was chaired by the Governor, RBI. Secretary-Ministry of Finance, Chairman - SEBI, Chairman - IRDA and Chairman - PFRDA are members of the committee.

During 2007-08, two meetings of the Committee were held on July 19, 2007 and January 11, 2008.

### **II. RBI-SEBI Standing Technical Committee**

This is a Standing Committee between SEBI and RBI that discusses operational issues between SEBI and RBI which require inter-regulatory co-ordination.

During 2007-08, two meetings of the Committee were held on August 14, 2007 and December 10, 2007.

### **III. RBI-SEBI Standing Technical Committee on Exchange Traded Currency and Interest Rate Derivatives**

A joint RBI - SEBI Standing Technical

Committee on exchange traded currency and interest rate derivatives had been constituted with representatives from both RBI and SEBI. To start with, the committee had been mandated to evolve norms and oversee the implementation of exchange traded currency futures. The committee had submitted its report on May 29, 2008 with regard to exchange traded currency futures.

### **IV. Inter-Regulatory Technical Sub-Committee of SEBI / IRDA / RBI Regulated Entities**

In addition to the above, there are Inter-Regulatory Technical sub-committees of SEBI / IRDA / RBI Regulated entities which are sub-committees of the HLCCFM. The Inter-Regulatory Technical sub-committee of SEBI regulated entities is chaired by Executive Director, SEBI and had representatives from RBI and IRDA. Representatives of BSE and NSE were invited to attend the meeting of the said sub-committee. One meeting of the sub-committee was held during 2007-08 on September 04, 2007.

The Inter-Regulatory Technical sub-committees of RBI regulated entities and IRDA regulated entities were chaired by RBI and IRDA respectively with representation from SEBI.

### **V. Contact Man System**

In order to effectively manage financial crisis or a stress situation which may require considerable co-ordination amongst different regulators and market infrastructure agencies or institutions, a 'Contact Man System' was put in place with representatives from the various regulatory agencies.