Macroeconomic and Monetary Developments First Quarter – 2008-09

# V. Financial Markets

#### International Financial Markets

Global financial markets witnessed generally uncertain conditions during April-July 2008<sup>4</sup>. The financial market turbulence that had erupted in the US sub-prime mortgage market in mid-2007 and gradually deepened towards early 2008, witnessed a cautious return of investor risk tolerance in the credit markets between mid-March 2008 and end-May 2008. As a result, spreads narrowed down in credit markets and investor interest revived temporarily in equity markets. In sharp contrast to these favourable developments, inter-bank money markets, however, failed to recover as liquidity demand remained elevated. Central banks continued to work together and also individually to improve liquidity conditions in financial markets. Financial markets, however, came under stress again in June 2008 and early-July 2008 as concerns mounted about the losses and longer-term profitability of two US mortgage companies, *viz.*, Fannie Mae and Freddie Mac.

Inter-bank money markets continued to show signs of stress during March-May 2008 as spreads between LIBOR rates and overnight index swap rates increased in all the three major markets, *viz.*, the US, the UK and the Euro area. Central banks continued to work together on liquidity conditions in financial markets. In view of the persistent liquidity pressures in some term funding markets, the European Central Bank (ECB), the US Federal Reserve, and the Swiss National Bank (SNB) announced an expansion of their liquidity measures in May 2008. On May 2, 2008,

1366 Monthly Bulletin August 2008

<sup>&</sup>lt;sup>4</sup>A detail account of the recent financial market turbulence was covered in the Macroeconomic and Monetary Developments in 2007-08, April 2008.

Macroeconomic and Monetary Developments First Quarter – 2008-09

the US Federal Reserve announced an increase in the amounts auctioned to eligible depository institutions under its biweekly Term Auction Facility (TAF) from US\$ 50 billion to US\$ 75 billion, beginning with the auction on May 5, 2008. In conjunction with the increase in the size of the TAF, the Federal Open Market Committee (FOMC) authorised further increases in its existing temporary reciprocal currency arrangements with the ECB and the SNB. These arrangements provided US dollars up to US\$ 50 billion and US\$ 12 billion to the ECB and the SNB, respectively, representing increases of US\$ 20 billion and US\$ 6 billion since December 12, 2007. In addition, the FOMC authorised an expansion of the collateral that could be pledged in the Federal Reserve's Schedule 2 Term Securities Lending Facility (TSLF) auctions. Primary dealers were allowed to pledge AAA/Aaa-rated asset-backed securities, in addition to already eligible residential and commercial-mortgagebacked securities and agency collateralised mortgage obligations, beginning with the Schedule 2 TSLF auction announced on May 7, 2008, and settled on May 9, 2008. Treasury securities, agency securities, and agency mortgage-backed securities continued to be eligible as collateral in Schedule 1 TSLF auctions. The Governing Council of the ECB decided, in conjunction with the US Federal Reserve and in the context of the TAF. to increase the amount of US dollar liquidity provided to the counterparties of the Eurosystem to US\$ 25 billion in each bi-weekly auction. The ECB intended to continue the provision of US dollar liquidity for as long as the Governing Council considered it was needed in view of the prevailing market conditions. The SNB decided to increase the frequency and amount of US dollar repo auctions. Accordingly, the SNB decided to hold its US dollar auctions on a 14-day basis. The total amount of liquidity made available was increased from US\$ 6 billion to a maximum of US\$ 12 billion. The SNB also planned to make US dollar liquidity available for as long as it considered this to be necessary. The wider pool of collateral promoted improved financing conditions in a broader range of financial markets.

Credit markets witnessed a cautious return of risk tolerance between mid-March 2008 and end-May 2008, with spreads recovering from the very wide levels witnessed in the first quarter of 2008. Market liquidity improved, allowing for better price differentiation across instruments. The stabilisation of financial markets and the emergence of a somewhat less pessimistic economic outlook also contributed to a turnaround in the equity markets till end-May 2008. Government bond yields rose mirroring the developments in the credit and equity markets. Growing perceptions among investors that the impact from the financial turmoil on real economic activity might turn out to be less severe than had been anticipated also improved investor confidence. Equity markets, however, declined beginning end-May 2008, reflecting hardening of inflation across the developed and emerging market economies (EMEs), surge in crude oil prices to new peaks and concerns over losses of two US mortgage companies, viz., Fannie Mae and Freddie Mac. In view of uncertainty about inflation outlook remaining high, the US Fed decided to



Macroeconomic and Monetary Developments First Quarter – 2008-09

> keep the fed funds rate target unchanged in its meeting held on June 25, 2008. On July 8, 2008, the Bank of Canada indicated that it would withdraw liquidity from the system in view of improvement in funding conditions witnessed since end-April 2008.

> The measures taken by the US Federal Reserve and other central banks improved somewhat the conditions in the financial markets. The recent episode of financial distress, however, raises several issues about financial regulation and the appropriate role of the lender of last resort. An important lesson emerging from the recent financial market turbulence is that the financial system needs to be strengthened with an array of regulatory changes, including strengthening of capital and liquidity rules, stronger risk management practices, closer supervision and management of firm-wide risks, and greater transparency and resilience of the financial infrastructure. Private investors and other market participants have to also

play crucial roles in strengthening the financial system.

#### Short-term Interest Rates

During 2008-09 so far (up to July 16, 2008), short-term interest rates in advanced economies witnessed a mixed trend, moving broadly in tandem with the policy rates (Table 39). In the US, short-term interest rates increased marginally. The US Fed kept its fed funds rate target unchanged at 2.0 per cent in June 2008. The pause occurred after a series of consecutive reductions in the fed funds rate target undertaken between September 18, 2007 and April 30, 2008. In the UK, short-term interest rates declined, reflecting cut in policy rate in the second half of 2007-08 and also in April 2008. The Bank of England, which had increased its policy rate in May 2007 and July 2007, reduced it in December 2007, February 2008 and April 2008 to 5.0 per cent in the wake of concerns over slow growth, thereby prompting a decline in short-term rates. On the other hand, shortterm interest rates increased in the Euro

	Table 39 : Short-term Interest Rates									
					(Per cent)					
Region/Country	End of									
	March 2006	March 2007	March 2008	June 2008	July 2008*					
1	2	3	4	5	6					
Advanced Economies										
Euro Area Japan South Korea Sweden UK US	2.80 0.04 4.26 1.99 4.58 4.77	3.91 0.57 4.94 3.21 5.55 5.23	4.72 0.75 5.32 4.11 6.01 2.26	4.96 0.75 5.36 4.12 5.93 2.29	4.96 0.75 5.52 4.23 5.75 2.31					
Emerging Market Economies										
Argentina Brazil China Hong Kong India Malaysia	9.63 16.54 2.40 4.47 <b>6.11</b> 3.51	9.63 12.68 2.86 4.17 <b>7.98</b> 3.64	10.44 11.18 4.50 1.83 <b>7.23</b> 3.62	16.50 12.17 4.48 2.33 <b>8.73</b> 3.69	16.25 12.17 4.42 2.22 <b>9.11</b> 3.70					
Philippines Singapore Thailand	7.38 3.44 5.10	5.31 3.00 4.45	6.44 1.38 3.25	6.00 1.25 3.65	5.94 1.14 3.75					

\*: As on July 16, 2008.

**Note** : Data for India refer to 91-day Treasury Bills rate and for other countries 3-month money market rates. **Source** : The Economist.



Macroeconomic and Monetary Developments First Quarter – 2008-09

Area reflecting increase in the key policy rates on July 3, 2008. In the EMEs, shortterm interest rates generally witnessed an uptrend, firming up in Argentina, Brazil, Hong Kong, Malaysia and Thailand. The only exceptions were China, the Philippines and Singapore.

#### Government Bond Yields

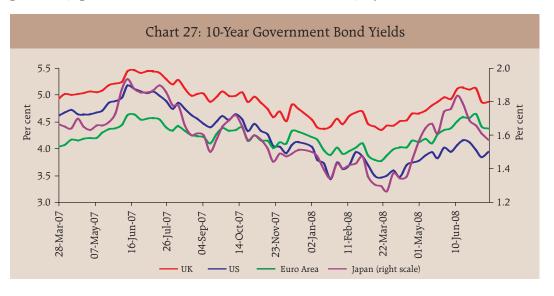
Long-term government bond yields in major advanced economies, which had bottomed out at end-March 2008, hardened during 2008-09 so far (up to July 16, 2008) (Chart 27). In addition to reduced safe haven demand for government securities, the rise in yields reflected a reassessment among investors of the need for monetary easing, following the stabilisation of financial markets during April-May 2008. The 10-year government bond yield in the US increased by 44 basis points between March 26, 2008 and July 16, 2008. During the same period, yields on 10-year government papers increased by 51 basis points in the Euro area, 44 basis points in the UK and 31 basis points in Japan.

#### Equity Markets

During 2008-09, so far (up to July 22, 2008) international equity markets witnessed a two-way movement (Table 40). International equity markets, which had recovered somewhat during April-May 2008, but declined thereafter on concerns over elevated crude oil prices and high inflation. Equity markets in most of the EMEs also declined due to signs of economic slowdown, sharp rise in inflation rate, high international crude oil prices and concerns over stagflation in the US.

#### Foreign Exchange Market

In the foreign exchange market, the US dollar depreciated against most of the currencies during 2008-09 so far (up to July 21, 2008). The dollar's weakness reflected lower consumer confidence in the wake of elevated global commodity prices, weaker equity markets, lower manufacturing growth, higher unemployment with downward non-farm payroll employment, lower sales of the new houses in the US and selling pressure of the US dollar in the international market. Between end-March 2007 and July 21, 2008, the US dollar







Macroeconomic and Monetary Developments First Quarter – 2008-09

			(Per cer
Country/Index	Percentage (year-on		Percentage Variation
	End-March 2007	End-March 2008	July 22, 2008 ove End-March 200
l	2	3	
Developed Markets			
JS (Dow Jones)	11.2	-0.7	-5.
JS (NASDAO)	3.5	-5.9	1
TSE UK 100	5.8	-9.6	-5
Euro Area (FTSE 100)	7.5	-15.7	-7
apan	1.3	-27.6	5
Hong Kong	25.3	15.4	-1
Emerging Markets		-	
Russia	34.9	6.1	3
Brazil	20.7	33.1	-2
Colombia	-3.7	-16.0	-2
South Africa	34.3	11.5	-7
South Korea	6.8	17.3	-6
Hungary	1.6	-7.3	-2
Singapore	28.2	-4.9	-3
Malaysia	34.6	0.1	-11
Argentina	16.8	0.04	-7
Turkey	1.8	-10.6	-3
ndonesia	38.4	33.7	-9
ndia	15.9	19.7	-9
Fhailand	-8.1	21.3	-16
China	145.2	9.1	-18
Memo:			
World (MSCI)	13.4	-5.1	-4
EMEs (MSCI)	17.9	18.9	-6
Asia (MSCI)	18.7	18.6	-11

Source: Bloomberg and Bombay Stock Exchange Limited (BSE).

depreciated by 0.3 per cent against the Euro, 0.5 per cent against the Pound sterling and 2.7 per cent against the Chinese Yuan. On the other hand, the US dollar appreciated by 6.3 per cent against the Japanese yen and 6.1 per cent against the Thai Baht (Table 41).

			(Per cent)
Currency	End-March 2007 @	End-March 08 @	July 21, 2008*
1	2	3	4
Euro	-9.1	-15.8	-0.3
Pound Sterling	-11.4	-1.5	-0.5
Japanese Yen	0.2	-14.9	6.3
Chinese Yuan	-3.4	-9.3	-2.7
Russian Rubble	-6.1	-9.7	-1.2
Turkish Lira	3.2	-5.8	-9.3
Indian Rupee	-2.5	-8.3	6.9
Indonesian Rupiah	0.5	1.1	-0.8
Malaysian Ringgit	-6.2	-7.8	1.5
South Korea Won	-3.7	5.5	2.1
Thai Baht	-9.9	-10.2	6.1
Argentine Peso	0.7	2.1	-4.5
Brazilian Peso	-6.4	-17.0	-7.2
Mexican Peso	1.3	-3.5	-4.5
South African Rand	17.2	11.3	-6.5
@: Year-on-year variation. *: Var	iation over end-March 2008	•	



Macroeconomic and Monetary Developments First Quarter – 2008-09

#### Domestic Financial Markets

Indian financial markets remained largely orderly during the first quarter of 2008-09. The main drivers of liquidity, and consequently the rates in the money market, were cash balances of the Central Government with the Reserve Bank, hikes in the cash reserve ratio (CRR) and the Reserve Bank's foreign exchange operations. Interest rates in the call money market mostly remained within the informal corridor set by reverse repo and repo rates during the quarter. As in the past, interest rates in the collateralised segment of the money market remained below the call rate. In the foreign exchange market, the Indian rupee generally depreciated against major currencies. Yields in the Government securities market hardened during the quarter (Table 42). Indian equity markets recovered somewhat during April-May 2008 but declined thereafter in tandem with trends in major international equity markets as well as edging up of domestic inflation.

Year/	Call	Money		rnment		Foreigr	1 Exchange		Liq	uidity	Equity			
Month	Average Daily Turnover (Rs.	Average Call Rates* (Per	Average Turnover in Govt. Securities	Average 10-year Yield@ (Per	Average Daily Inter- bank	Average Exchange Rate (Rs. per	RBI's net Foreign Currency Sales (-)/	Average 3-month Forward Premia	Average MSS Out- standing#	gement Average Daily LAF Out-	Average Daily BSE Turnover	Average Daily NSE Turnover	Average BSE Sensex**	Average S & P CNX Nifty**
	crore)	cent)	(Rs. crore)+	cent)	Turnover (US \$ million)	US \$)	Purchases (+) (US \$ million)	(Per cent)	(Rs. crore)	standing (Rs. crore)	(Rs. crore)	(Rs. crore)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2005-06	17,979	5.60	3,643	7.12	12,738	44.27	8,143 ##	1.60	58,792	10,986	3,248	6,253	8280	2513
2006-07	21,725	7.22	4,863	7.78	18,719	45.28	26,824 ##	2.14	37,698	21,973	3,832	7,812	12277	3572
2007-08	21,393	6.07	8,104	7.91	33,746P	40.24	78,203 ##	2.16	1,28,684	4,677	6,335	14,148	16569	4897
Jan 2007	22,360	8.18	4,822	7.71	21,171	44.33	2,830	4.22	39.553	-10,738	4,380	8,757	13984	4037
Feb 2007	23,254	7.16	4,386	7.90	20,298	44.16	11,862	3.71	40,827	648	4,676	9,483	14143	4084
Mar 2007	23,217	14.07	2,991	8.00	25,992	44.03	2,307	4.51	52,944	-11,858	3,716	7,998	12858	3731
Apr 2007	29,689	8.33	4,636	8.10	29,311	42.15	2,055	6.91	71,468	-8,937	3.935	8,428	13478	3947
May 2007	20,476	6.96	4,442	8.15	25,569	40.78	4,426	4.58	83,779	-6,397	4,706	9,885	14156	4184
Jun 2007	16,826	2.42	6,250	8.20	30,538	40.77	3,192	2.59	83,049	1,689	4,536	9,221	14334	4222
Jul 2007	16,581	0.73	13,273	7.94	32,586	40.41	11,428	1.12	82,996	2,230	5,684	12,147	15253	4474
Aug 2007	23,603	6.31	6,882	7.95	31,994	40.82	1,815	1.59	1,00,454	21,729	4,820	10,511	14779	4301
Sep 2007	21,991	6.41	5,859	7.92	36,768	40.34	11,867	1.45	1,17,674	16,558	6,157	13,302	16046	4660
Oct 2007	18,549	6.03	5,890	7.92	39,452P	39.51	12,544	1.12	1,58,907	36,665	9,049	20,709	18500	5457
Nov 2007	20,146	6.98	4,560	7.94	30,677P	39.44	7,827	1.40	1,75,952	-2,742	7,756	18,837	19260	5749
Dec 2007	16,249	7.50	7,704	7.91	31,547P	39.44	2,731	1.64	1,64,606	-10,804	8,606	19,283	19827	5964
Jan 2008	27,531	6.69	19,182	7.61	38,008P	39.37	13,625	2.07	1,59,866	15,692	8,071	19,441	19326	5756
Feb 2008	22,716	7.06	12,693	7.57	40,441P	39.73	3,884	0.24	1,75,166	-1,294	5,808	13,342	17728	5202
Mar 2008	22,364	7.37	5,881	7.69	38,617P	40.36	2,809	1.25	1,70,285	-8,271	6,166	14,056	15838	4769
Apr 2008	19,516	6.11	6,657	8.10	36,710P	40.02	4,325	2.68	1,70,726	26,359	5,773	13,561	16291	4902
May 2008	19,481	6.62	8,780	8.04	31,868P	42.13	148	2.45	1,75,565	11,841	6,084	13,896	16946	5029
Jun 2008	21,707	7.75	6,835	8.41	38,108P	42.82		3.78	1,74,433	- 8,622	5,410	12,592	14997	4464

## : Cumulative for the financial year.

BSE : Bombay Stock Exchange Limited.

LAF : Liquidity Adjustment Facility. MSS : Market Stabilisation Scheme. NSE : National Stock Exchange of India Limited. P : Provisional - : Not available.

Note : In column 11, (-) indicates injection of liquidity, while (+) indicates absorption of liquidity.



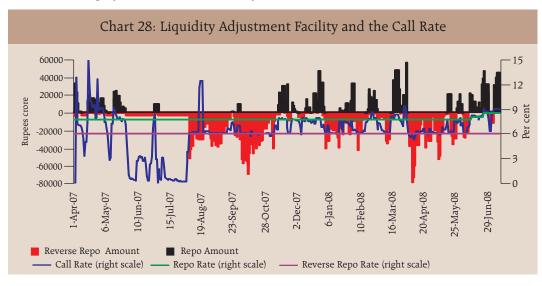
Macroeconomic and Monetary Developments First Quarter – 2008-09

#### Money Market

The Indian money market remained largely orderly during the first quarter of 2008-09. Money market rates declined during the beginning of the first quarter of 2008-09 from their levels witnessed in the second-half of March 2008. The various interest rates in the money market moved in tandem with the evolving liquidity conditions. The daily average call rate, which hovered around the repo rate in the second-half of March 2008, moderated in the beginning of April 2008 as liquidity conditions eased on account of significant reduction in the surplus cash balances of the Central Government with the Reserve Bank. The call rate hovered around the reverse repo rate during April 2008 on account of easy liquidity conditions. In May 2008, the call rate mostly remained within the informal corridor as liquidity remained in a surplus mode. The weighted average call rate in May 2008 was, however, higher than that during April 2008, as the surplus liquidity in the banking system declined in May 2008 due to the cumulative impact of the three-stage hike in the CRR of 25 basis points each to 8.25 per cent. On some occasions during the second-half of May 2008, the call rate hovered around the upper bound of the liquidity adjustment facility (LAF) corridor (Chart 28).

The call rate declined in the beginning of June 2008, but moved above the repo rate on June 10, 2008 as liquidity conditions turned tight, and mostly remained around that level for the rest of the month. In the first week of July 2008, the call rate declined sharply and moved within the LAF corridor as liquidity eased mainly on account of a decline in the cash balances of the Central Government. Subsequently, the call rate mostly remained above the repo rate reflecting the two-stage CRR hike of 25 basis points each (on July 5 and July 19, respectively) to 8.75 per cent. The call rate was placed at 9.67 per cent on July 23, 2008.

Interest rates in the collateralised segments of the money market – the market repo (outside the LAF) and the





Macroeconomic and Monetary Developments First Quarter – 2008-09

Collateralised Borrowing and Lending Obligation (CBLO) – moved in tandem with call rates, and continued to remain below the call rate during the first quarter of 2008-09 (Chart 29). During April-June 2008, interest rates averaged 6.83 per cent, 6.14 per cent, 6.42 per cent in the call, CBLO and market repo segments, respectively (5.90 per cent, 4.17 per cent, 4.66 per cent, respectively, a year ago).

The average daily volume in the money market segments – call, market repo (outside the LAF) and CBLO – during April-June 2008 was around 52 per cent higher than that in the same period of 2007. The collateralised market (market repo and CBLO) remained the predominant segment of the money market, and accounted for more than 80 per cent of the total volume during April-June 2008 (Table 43). Mutual funds were the major lenders in the CBLO and market repo segments, while commercial banks were the major borrowers in both the segments.

#### Certificates of Deposit

The outstanding amount of certificates of deposit (CDs) issued by scheduled commercial banks (SCBs) increased from Rs.1,47,792 crore at end-March 2008 to Rs.1,63,143 crore as on June 20, 2008 (see Table 43). The outstanding amount of CDs as on June 20, 2008 accounted for 6.2 per cent of total aggregate deposits of the 'CD-issuing' banks with significant inter-bank variation ranging from 0.2 per cent to 37.0 per cent. The overall weighted average discount rate (WADR) of CDs declined from 10.0 per cent at end-March 2008 to 8.49 per cent at end-April 2008 but thereafter increased to 9.16 per cent on June 20, 2008. The top five CD-issuers, two private sector banks, two foreign banks and one public sector bank, accounted for 64 per cent of the new issuances during the fortnight ended June 20, 2008.

#### Commercial Paper

The outstanding amount of commercial paper (CP) issued by







Macroeconomic and Monetary Developments First Quarter – 2008-09

> corporates increased from Rs.32,592 crore at end-March 2008 to Rs.46,847 crore on June 30, 2008 (see Table 43). The WADR on CP declined from 10.38 per cent at end-March 2008 to 8.57 per cent on May 15, 2008 but thereafter increased to 10.03 per cent on June 30, 2008. Mutual funds were the major investors in the CP market and the preferred tenor of CP issuances was '6 months to 1 year'.

> Leasing and finance companies were the predominant issuers of CP with 75 per cent share, followed by

'manufacturing and other companies' and 'financial institutions' as on June 30, 2008 (Table 44).

#### Treasury Bills

During the first quarter of 2008-09, primary market yields on Treasury Bills (TBs) hardened, particularly from May 2008, in tandem with higher money market interest rates, hikes in the CRR, higher inflation and inflation expectations (Chart 30 and Table 45). The yield spread between 364-day and 91-day TBs was 8 basis points in June 2008 (7 basis points in March 2008).

	Table 43: Activity in Money Market Segments										
									(Rupees crore)		
		Average	Daily Volume (	One Leg)		Commerci	ial Paper	Certificates of	of Deposit		
Year/ Month	Call Money Market	Repo Market (Outside the LAF)	Collateralised Borrowing and Lending Obligation (CBLO)	Total (2+3+4)	-	Outstanding	WADR (per cent)	0	WADR (per cent)		
1	2	3	4	5	6	7	8	9	10		
2005-06	8,990	5,296	10,020	24,306	417	17,285	6.46	27,298	-		
2006-07	10,863	8,419	16,195	35,477	506	21,329	8.08	64,821	8.24		
2007-08	10,697	13,684	27,813	52,194	352	33,813	9.20	1,15,617	8.29		
Jan 2007	11,180	6,591	15,758	33,529	515	24,398	9.09	70,149	9.22		
Feb 2007	11,627	7,794	19,063	38,484	467	21,167	10.49	72,795	9.87		
Mar 2007	11,608	8,687	17,662	37,957	739	17,863	11.33	93,272	10.75		
Apr 2007	14,845	7,173	18,086	40,104	440	18,759	10.52	95,980	10.55		
May 2007	10,238	8,965	20,810	40,013	277	22,024	9.87	99,715	9.87		
Jun 2007	8,413	10,295	20,742	39,450	308	26,256	8.93	98,337	9.37		
Jul 2007	8,290	12,322	20,768	41,380	288	30,631	7.05	1,05,317	7.86		
Aug 2007	11,802	16,688	26,890	55,380	319	31,527	8.30	1,09,224	8.67		
Sep 2007	10,995	17,876	29,044	57,915	265	33,614	8.95	1,18,481	8.57		
Oct 2007	9,275	15,300	29,579	54,154	221	42,183	7.65	1,24,232	7.91		
Nov 2007	10,073	12,729	28,614	51,416	184	41,307	9.45	1,27,142	8.48		
Dec 2007	8,124	13,354	30,087	51,565	509	40,243	9.27	1,23,466	8.81		
Jan 2008	13,765	17,029	35,711	66,505	312	50,062	11.83	1,29,123	8.82		
Feb 2008	11,358	17,682	36,007	65,047	525	40,642	9.73	1,39,160	9.94		
Mar 2008	11,182	14,800	37,413	63,395	571	32,592	10.38	1,47,792	10.00		
Apr 2008	9,758	14,966	38,828	63,552	374	37,584	8.85	1,50,865	8.49		
May 2008	9,740	14,729	36,326	60,795	420	42,032	9.02	1,56,780	8.95		
Jun 2008	10,854	11,262	35,774	57,890	253	46,847	10.03	1,63,143	9.16		
-: Not available.	WADE	R: Weighted Av	erage Discount Rat	te.							



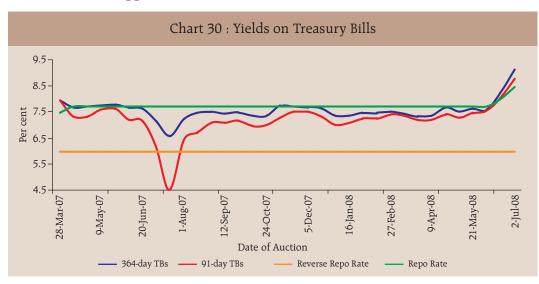
Macroeconomic and Monetary Developments First Quarter – 2008-09

Table 44: Commercial Paper - Major Issuers								
			(Rupees crore)					
Category of Issuer		End of						
	March	March	June					
	2007	2008	2008					
1	2	3	4					
Leasing and Finance	12,594	24,925	34.957					
	(70.5)	(76.5)	(74.6)					
Manufacturing	2,754	5,687	8,150					
	(15.4)	(17.4)	(17.4)					
Financial Institutions	2,515	1,980	3,740					
	(14.1)	(6.1)	(8.0)					
Total	17,863	32,592	46,847					
	(100.0)	(100.0)	(100.0)					

**Note :** Figures in parentheses are percentage shares in the total outstanding.

#### Foreign Exchange Market

During 2007-08, the Indian rupee generally exhibited two-way movements (Chart 31). The rupee moved in the range of Rs.39.26-43.15 per US dollar during 2007-08. The rupee depreciated during the first half of August 2007 due to bearish conditions in the Asian stock markets including India, strong FII outflows and concerns over sub-prime lending crisis in the US, while it appreciated thereafter reflecting large capital inflows, weakening of the US dollar *vis-à-vis* other currencies and strong performance in the domestic stock markets. However, the rupee started depreciating against the US dollar from the beginning of February 2008 on account of bearish conditions in the stock market, capital outflows, rising crude oil prices and increased demand for US dollars by corporates. The exchange rate of the rupee was Rs.39.99 per US dollar on March 31,





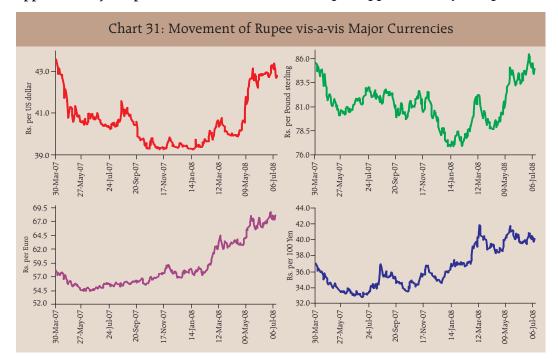


Macroeconomic and Monetary Developments First Quarter -2008-09

	Table 45: Treasury Bills in the Primary Market									
Month	Notified Amount	Ave Minimu	rage Implicit m Cut-off Pri	Yield at ice (Per cent)	Ave	r Ratio				
	(Rupees crore)	91-day	182-day	364-day	91-day	182-day	364-day			
1	2	3	4	5	6	7	8			
2005-06	1,55,500 @	5.68	5.82	5.96	2.64	2.65	2.45			
2006-07	1,86,500 @	6.64	6.91	7.01	1.97	2.00	2.66			
2007-08	2,24,500 @	7.10	7.40	7.42	2.84	2.79	3.21			
Jan 2007	19,000	7.28	7.45	7.39	1.02	1.35	1.74			
Feb 2007	15,000	7.72	7.67	7.79	2.48	2.56	3.16			
Mar 2007	15,000	7.73	7.98	7.90	2.08	2.15	3.87			
Apr 2007	15,000	7.53	7.87	7.72	2.87	3.36	3.16			
May 2007	18,500	7.59	7.70	7.79	2.33	2.57	2.33			
Jun 2007	35,000	7.41	7.76	6.67	3.23	4.11	3.97			
Jul 2007	12,500	5.07	5.94	6.87	4.48	2.70	4.56			
Aug 2007	20,500	6.74	7.37	7.42	2.11	1.41	2.46			
Sep 2007	25,000	7.08	7.33	7.48	2.07	2.91	2.83			
Oct 2007	28,500	7.11	7.45	7.37	2.16	1.73	3.23			
Nov 2007	22,500	7.47	7.65	7.75	1.63	1.38	1.88			
Dec 2007	7,500	7.41	7.60	7.69	4.41	4.67	3.67			
Jan 2008	19,000	7.08	7.24	7.39	2.63	1.61	4.36			
Feb 2008	15,500	7.33	7.40	7.51	2.15	2.91	2.78			
Mar 2008	5,000	7.33	7.45	7.40	3.97	4.17	3.34			
Apr 2008	22,000	7.28	7.41	7.53	1.70	1.36	2.36			
May 2008	21,000	7.41	7.55	7.61	2.65	2.78	3.05			
Jun 2008	11,500	8.01	8.42	7.93	2.00	2.76	2.80			

@ : Total for the financial year.
Note: 1. 182-day TBs were reintroduced with effect from April 2005.
2. Notified amounts are inclusive of issuances under the Market Stabilisation Scheme (MSS).

2008. At this level, the Indian rupee appreciated by 9.0 per cent over its level on March 31, 2007. Over the same period, the rupee appreciated by 7.6 per cent





Macroeconomic and Monetary Developments First Quarter – 2008-09

against the Pound sterling, while it depreciated by 7.8 per cent against the Euro, 7.6 per cent against the Japanese yen and 1.1 per cent against the Chinese yuan.

During 2008-09 so far (up to July 23, 2008), the Indian rupee generally depreciated. The rupee moved in the range of Rs.39.89-43.16 per US dollar during the first quarter. The rupee, which depreciated during fourth quarter of 2007-08, up to mid-March 2008, appreciated thereafter till end-March 2008, reflecting strong FDI inflows. After trading in a range of Rs. 39.89-40.02 per US dollar till April 22, 2008, the rupee broke above the value of Rs. 40.00 per US dollar on April 24, 2008. The rupee depreciated continuously thereafter, reflecting large capital outflows by FIIs (US \$ 5.2 billion during the first quarter of 2008-09), increased demand for dollars by the oil companies and bearish stock market conditions. The exchange rate of the rupee was Rs.42.33 per US dollar on July 23, 2008. At this level, the Indian rupee depreciated by 5.5 per cent over its level on March 31, 2008. Over the same period, the rupee depreciated by 5.7 per cent against the Pound sterling, 5.5 per cent against the Euro and 8.2 per cent against the Chinese yuan, while appreciated by 1.8 per cent against the Japanese yen.

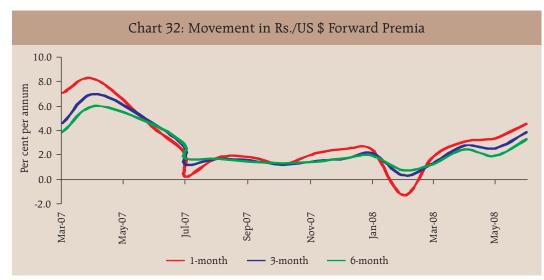
On an average basis, both the 36currency trade weighted nominal effective exchange rate (NEER) and real effective exchange rate (REER) of the Indian rupee depreciated by 3.9 per cent each between March 2008 and May 2008 (Table 46). Over the same period, the 6-currency trade weighted NEER and REER of the rupee depreciated by 4.1 per cent and 2.7 per cent, respectively. On July 22, 2008, the 6-

Table 46: Nominal and Real Effective Exchange Rate of the Indian Rupee (Trade Based Weights)									
Year/Month		Base : 1993-94 (April-March) = 100							
	6-Curren	cy Weights	36-Currence	y Weights					
	NEER	REER	NEER	REER					
1	2	3	4	5					
2005-06	72.28	107.30	89.85	102.35					
2006-07 (P)	68.93	105.47	85.89	98.51					
2007-08 (P)	74.13	114.73	92.97	106.17					
Jan 2007	69.77	107.70	87.05	100.73					
Feb 2007	69.88	107.71	87.20	100.71					
Mar 2007	70.23	107.46	87.11	100.50					
Apr 2007	72.74	111.63	91.80	103.46					
May 2007	75.19	115.73	94.69	106.84					
Jun 2007	75.37	115.22	93.24	106.82					
Jul 2007	75.15	115.10	93.09	106.90					
Aug 2007	74.44	114.10	92.65	106.29					
Sep 2007	74.64	115.03	92.91	106.88					
Oct 2007	75.45	115.79	93.50	107.02					
Nov 2007	74.34	113.90	92.48	105.54					
Dec 2007	74.65	114.52	92.92	105.93					
Jan 2008	74.31	114.23	92.56	105.97					
Feb 2008	73.41	113.06	91.42	104.72					
Mar 2008	70.38	110.87	88.34	102.43					
Apr 2008	70.63	111.52	88.77	102.15					
May 2008	67.48	107.90	84.86	98.42					
Jun 2008	66.33	108.49	-	-					
July 22, 2008	65.68	109.26	-	-					

NEER: Nominal Effective Exchange Rate. REER: Real Effective Exchange Rate. P: Provisional. -: Not available. **Note:** Rise in indices indicates appreciation of the rupee and *vice versa*.



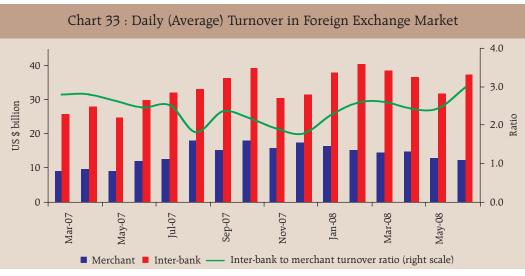
Macroeconomic and Monetary Developments First Quarter – 2008-09



currency trade weighted NEER and REER of the rupee depreciated by 6.4 per cent and 1.7 per cent, respectively, over their end-March 2008 levels.

Forward premia increased during the first quarter of 2008-09, reflecting the rising interest rate differentials on account of higher domestic interest rates and CRR hikes. The one-month forward premia increased from 3.45 per cent at end March 2008 to 7.57 per cent on July 18, 2008, while the six-month forward premia increased from 2.50 per cent to 5.10 per cent over the same period (Chart 32).

The average daily turnover in the foreign exchange market increased to US \$ 49.1 billion during April-June 2008 from US \$ 39.2 billion in the corresponding period of 2007 (Chart 33). While the inter-bank turnover increased from US \$ 28.5 billion to US \$ 35.6 billion, the merchant turnover increased from US \$ 10.8 billion to US \$ 13.6 billion. The ratio of inter-bank to merchant





RB

Monthly Bulletin

August 2008

Macroeconomic and Monetary Developments First Quarter – 2008-09

turnover at 2.6 during April-June 2008 was almost the same as a year ago.

#### Credit Market

The deposit rates of scheduled commercial banks (SCBs) hardened during 2008-09 so far (up to July 14, 2008). Interest rates of public sector banks (PSBs) on deposits of maturity of up to one year increased to 2.75-9.25 per cent in July 2008 from 2.75-8.50 per cent in March 2008. The deposit rates of private sector banks on deposits of maturity both of one to three years and above three years firmed up to the range of 8.00-10.00 per cent in July 2008 from the range of 7.25-9.25 per cent and 7.25-9.75 per cent, respectively, in March 2008 (Table 47).

The benchmark prime lending rates (BPLRs) of PSBs and private sector banks

were placed in the range of 12.75-14.00 per cent and 13.50-17.25 per cent, respectively, in July 2008 as compared with the range of 12.25-13.50 per cent and 13.00-16.50 per cent, respectively, in March 2008 (Chart 34). The BPLR of foreign banks at 10.00-15.50 per cent, however, remained unchanged during the same period.

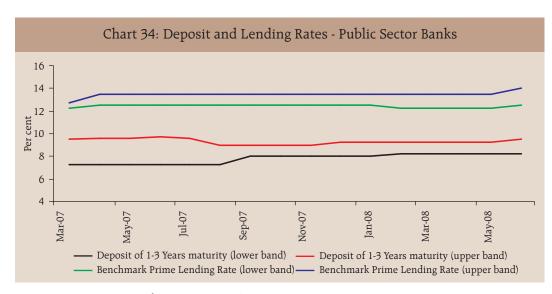
The weighted average BPLR of PSBs increased from 12.43 per cent in March 2007 and 12.84 per cent in March 2008 to 12.94 per cent in June 2008. The weighted average BPLR of private sector banks increased from 14.33 per cent in March 2007 and 15.10 per cent in March 2008 to 15.22 per cent in June 2008. The weighted average BPLR of foreign banks also rose from 12.63 per cent in March 2007 and

					(Per cent
Item	March 2006	March 2007	March 2008	June 2008	Jul 2008 <del>/</del>
1	2	3	4	5	
1. Domestic Deposit Rate Public Sector Banks Up to 1 year More than 1 year and up to 3 years	2.25-6.50 5.75-6.75	2.75-8.75 7.25-9.50	2.75-8.50 8.25-9.25	2.75-9.00 8.25-9.50	2.75-9.2 8.25-9.7
More than 3 years	6.00-7.25	7.50-9.50	8.00-9.00	8.00-9.35	8.50-9.5
<b>Private Sector Banks</b> Up to 1 year More than 1 year and up to 3 years More than 3 years	3.50-7.25 5.50-7.75 6.00-7.75	3.00-9.00 6.75-9.75 7.75-9.60	2.50-9.25 7.25-9.25 7.25-9.75	3.00-8.75 8.00-9.50 8.00-10.00	3.00-9.0 8.00-10.0 8.00-10.0
Foreign Banks Up to 1 year More than 1 year and up to 3 years More than 3 years	3.00-6.15 4.00-6.50 5.50-6.50	3.00-9.50 3.50-9.50 4.05-9.50	2.25-9.25 3.50-9.75 3.60-9.50	3.00-9.25 3.50-9.75 3.60-9.50	3.25-9.5 3.50-9.8 3.60-9.8
2. Benchmark Prime Lending Rate Public Sector Banks Private Sector Banks Foreign Banks	10.25-11.25 11.00-14.00 10.00-14.50	12.25-12.75 12.00-16.50 10.00-15.50	12.25-13.50 13.00-16.50 10.00-15.50	12.50-14.00 13.00-17.00 10.00-15.50	12.75-14.0 13.50-17.2 10.00-15.5
3. Actual Lending Rate* Public Sector Banks Private Sector Banks Foreign Banks	4.00-16.50 3.15-20.50 4.75-26.00	4.00-17.00 3.15-25.50 5.00-26.50	4.00-17.75 4.00-24.00 5.00-28.00	-	
4. Weighted Average Lending Rate	11.97	11.92	-	-	

\* : Interest rate on non-export demand and term loans above Rs.2 lakh excluding lending rates at the extreme five per cent on both sides.



Macroeconomic and Monetary Developments First Quarter – 2008-09



13.87 per cent in March 2008 to 14.06 per cent in June 2008.

#### Government Securities Market

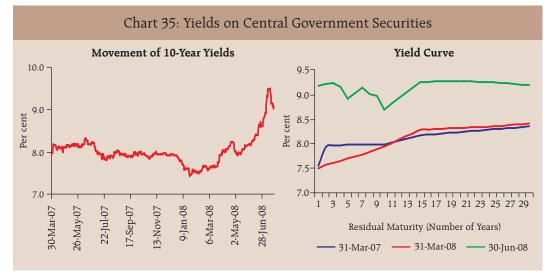
The yields in the Government securities market hardened initially during the first quarter of 2008-09 on the back of rise in inflation. The 10-year yield increased from 7.98 per cent as on April 2, 2008 to 8.24 per cent as on April 24, 2008. Thereafter, the 10-year yield eased below 8.0 per cent as the policy rates were kept unchanged in the Annual Policy Statement for the Year 2008-09, announced on April 29, 2008. Easy liquidity condition on the back of Government spending also contributed to the decline in yields. Subsequently, heightened inflationary expectations emanating from the sharp increase in global commodity prices as well as international crude oil prices led to the hardening of the yields (Chart 35). Tight liquidity conditions due to monetary measures and advance tax flows towards the end of June 2008 also contributed to the rise in yields. The 10-year yield declined in the third week of July 2008 after reaching a peak of 9.51 per cent on July 15, 2008, reflecting easing of international crude oil prices. The 10-year yield closed at 9.03 per cent on July 23, 2008, 110 basis points higher than that at end-March 2008.

The spread between 1-year and 10year yields was (-)49 basis points at end-June 2008 as compared with 45 basis points at end-March 2008. The spread between 10year and 30-year yields was 50 basis points at end-June 2008 (47 basis points at end-March 2008). The entire yield curve as on June 30, 2008 shifted up as compared with March 31, 2008 reflecting tightness in liquidity conditions and the consequent rise in money market rates. The yield curve as on June 30, 2008 continued to exhibit flatness beyond 15 years but was marked by dips around 5-year and 10-year tenors, reflecting demand-supply imbalances around these buckets.

The daily turnover in the Government securities market averaged Rs.8,196 crore during April-June 2008,

1380 Monthly Bulletin August 2008

Macroeconomic and Monetary Developments First Quarter – 2008-09



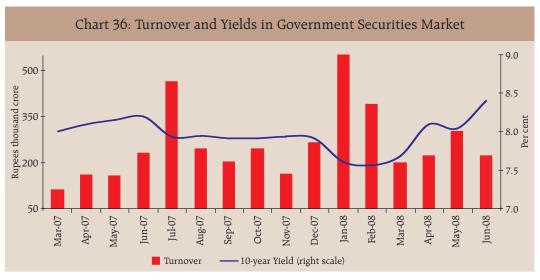
which was 39 per cent lower than that in the preceding quarter (Chart 36).

The yield on 5-year AAA-rated corporate bonds hardened during the first quarter of 2008-09 in tandem with Government securities yield. The spread between the yields on 5-year AAA-rated bonds and 5-year Government securities was 125 basis points at end-June 2008 as compared with 161 basis points at end-March 2008 (Chart 37).

# Equity Market

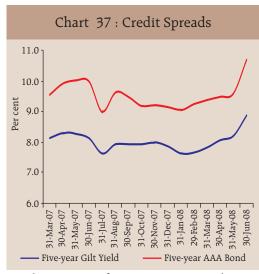
#### Primary Market

Resources raised through public issues declined by 91.5 per cent to Rs. 2,031 crore during April-June 2008 over those in the corresponding period of last year. The number of issues declined from 24 in April-June 2007 to 15 in April-June 2008 (Table 48). The average size of public issues also declined to Rs.135 crore during





Macroeconomic and Monetary Developments First Quarter – 2008-09



April-June 2008 from Rs.994 crore during April-June 2007. All public issues during

April-June 2008 were in the form of equity. Out of 15 issues during April-June 2008, 13 issues were initial public offerings (IPOs), accounting for 78.4 per cent of total resource mobilisation.

Mobilisation of resources through private placement increased by 45.7 per cent to Rs.2,12,568 crore during 2007-08 over the previous year. Resources mobilised by private sector entities increased by 58.3 per cent during 2007-08, while those by public sector entities increased by 29.7 per cent. Financial intermediaries (both from public sector and private sector) accounted for the bulk (67.9 per cent) of the total resource mobilisation from the private placement market during 2007-08 (68.9 per cent during 2006-07).

			(Amount :	in Rupees crore)	
Item	April - Ju	ne 2007	April - June	2008 P	
	No. of Issues	Amount	No. of Issues	Amount	
1	2	3	4	5	
<ul> <li>A. Prospectus and Rights Issues*</li> <li>1. Private Sector (a+b) <ul> <li>a) Financial</li> <li>b) Non-financial</li> </ul> </li> <li>2. Public Sector (a+b+c) <ul> <li>a) Public Sector Undertakings</li> <li>b) Government Companies</li> <li>c) Banks/Financial Institutions</li> </ul> </li> <li>3. Total (1+2) <ul> <li>of which:</li> <li>(i) Equity</li> </ul> </li> </ul>	<b>23</b> 1 22 <b>1</b> 1 - <b>24</b> 24	<b>23,324</b> 10,063 13,261 <b>527</b> 527 - - - <b>23,851</b> 23,851	15 - - - - - - - - - - - - - - - - - - -	<b>2,031</b> - - - - - - - - - - - - - - - - - - -	
(ii) Debt	2006		- 2007-	- 18 P	
B. Private Placement	2000		200)-		
<ol> <li>Private Sector (a+b)         <ul> <li>a) Financial</li> <li>b) Non-financial</li> </ul> </li> <li>Public Sector (a+b)         <ul> <li>a) Financial</li> </ul> </li> </ol>	<b>1,524</b> 632 892 <b>157</b> 127	<b>81,841</b> 48,414 33,427 <b>64,025</b> 52,117	<b>1,614</b> 904 710 <b>198</b> 132	<b>1,29,522</b> 88,151 41,371 <b>83,046</b> 56,185	
b) Non-financial	30	11,908	66	26,861	
<b>3. Total (1+2)</b> of which: (i) Equity (ii) Debt	<b>1,681</b> 1 1,680	<b>1,45,866</b> 57 1,45,809	<b>1,812</b> 2 1,810	<b>2,12,568</b> 1,410 2,11,158	
	April - Ju	ine 2007	April - June	2008 P	
C. Euro Issues	3	1,251	8	4,056	
P : Provisional. * : Excluding offers for sale : Nil/Negligible.					

Table 48: Mobilisation of Resources from the Primary Market



Macroeconomic and Monetary Developments First Quarter – 2008-09

Resources raised through Euro issues – American Depository Receipts (ADRs) and Global Depository Receipts (GDRs) – by Indian corporates during April-June 2008 at Rs.4,056 crore were substantially higher than those during the corresponding period of previous year.

During April-June 2008, net mobilisation of resources by mutual funds declined by 25.3 per cent to Rs.38,437 crore over the corresponding period of 2007 (Table 49). Scheme-wise, during April-June 2008, 90.0 per cent of net mobilisation of funds was under income/debt oriented schemes. Growth-oriented schemes accounted for 7.9 per cent of net resource mobilisation during April-June 2008.

#### Secondary Market

The domestic stock markets, which remained generally firm up to first week of January 2008, witnessed severe bouts of volatility thereafter due to heightened concerns over the severity of sub-prime lending crisis in the US and its spillover to other market segments and in other countries (Chart 38). The domestic stock markets recovered somewhat during April-May 2008. On May 21, 2008, the BSE Sensex

registered gains of 10.2 per cent over end-March 2008. The upward trend was attributed to better than expected fourth quarter results of 2007-08 declared by IT majors, net purchases by FIIs in the Indian equity market, and some easing of international crude oil prices. The market sentiment, however, turned cautious thereafter mainly on account of hike in domestic retail fuel prices, rise in domestic inflation rate, net sales by FIIs in the Indian equity market, concerns over rising trade deficit and depreciation of the rupee, downward trend in major international equity markets, increase in international crude oil prices and other sector and stock specific news. As a result, both the BSE Sensex and the S&P CNX Nifty closed lower at 14942.28 and 4476.80, respectively, on July 23, 2008, registering losses of 4.5 per cent and 5.4 per cent, respectively, over their end-March 2008 level. Between end-March 2008 to July 23, 2008, the BSE Sensex moved in a range of 12576-17600.

According to the data released by the Securities and Exchange Board of India (SEBI), FIIs made net sales of Rs.16,279 crore (US \$ 4.0 billion) in the Indian equity

Table 49 : Resource Mobilisation by Mutual Funds										
	Table 47, Resource moonsation by Mutual Lunds									
	(Rupees crore									
	April-M	larch		April-	June					
Category	2007-08	2007-08		8	2008-09					
	Net	Net	Net	Net	Net	Net				
	Mobilisation@	Assets #	Mobilisation @	Assets #	Mobilisation @	Assets #				
1	2	3	4	5	6	7				
Private Sector	1,33,304	4,15,621	48,542	3,29,421	24,264	4,24,821				
Public Sector *	20,498	89,531	2,908	71,421	14,173	97,078				
Total	1,53,802	5,05,152	51,450	4,00,842	38,437	5,21,899				
@: Net of redemptions.	#: End-r	period.	*: Including	UTI Mutual	fund.					

 @: Net of redemptions.
 #: End-period.
 \*: Including UTI Mutual fund Note: Data exclude funds mobilised under Fund of Funds Schemes.
 Source: Securities and Exchange Board of India.

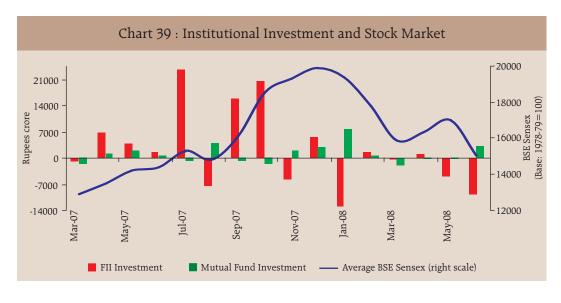


Macroeconomic and Monetary Developments First Quarter – 2008-09



market during 2008-09 so far (up to July 17, 2008) as against net purchases of Rs.30,777 crore (US \$ 7.4 billion) during the corresponding period of the previous year (Chart 39). Mutual funds, on the other hand, made net purchases of Rs.3,654 crore during 2008-09 so far (up to July 17, 2008) as compared with net purchases of Rs.2,604 crore during the corresponding period of last year.

The sectoral indices witnessed a mixed trend during the current financial year so far (up to July 18, 2008) (Table 50). The losers among the sectoral indices were capital goods, auto, banking, public sector undertakings, metal, fast moving consumer goods, consumer durables and oil and gas, while the gainers were information technology and healthcare sector stocks.





Macroeconomic and Monetary Developments First Quarter – 2008-09

Table 50: BSE Sectoral Stock Indices											
(Base: 1978-79=100)											
Sector	Variation (per cent)										
	End-March 2007 @	End-March 2008 @	End-June 2008 #	July 18, 2008 #							
1	2	3	4	5							
Fast Moving Consumer Goods	-21.4	31.7	-9.2	-12.8							
Public Sector Undertakings	-3.2	25.4	-23.7	-17.6							
Information Technology	21.6	-27.6	13.3	0.9							
Auto	-8.5	-7.1	-20.8	-20.4							
Oil and Gas	30.5	56.0	-10.1	-7.8							
Metal	-4.3	65.2	-5.8	-16.8							
Health Care	-5.4	5.4	8.2	3.7							
Bankex	24.2	18.0	-23.3	-19.8							
Capital Goods	11.1	54.4	-28.0	-20.4							
Consumer Durables	11.1	8.8	-10.4	-10.8							
BSE 500	9.7	24.3	-15.3	-15.5							
BSE Sensex	15.9	19.7	-14.0	-12.8							

(@: Year-on-year variation. #: Variation over end-March 2008.Source: Bombay Stock Exchange Limited.

Reflecting the downward trend in stock prices, the price-earnings (P/E) ratio of the 30 scrips included in the BSE Sensex declined from 20.1 at end-March 2008 to 16.5 at end-June 2008. The market capitalisation of the BSE also declined by 14.8 per cent between end-March 2008 and end-June 2008. The volatility in the stock markets, however, increased during April-June 2008 as compared with the corresponding period of last year. The turnover of both BSE and NSE in the cash segment during April-June 2008 was higher by 38.2 per cent than the corresponding period of 2007 (Table 51).

Table 51: Stock Market Indicators											
Indicator	BSE				NSE						
	2006-07	2006-07 2007-08 April-June		2006-07 2007-08	April-June						
			2007	2008			2007	2008			
1	2	3	4	5	6	7	8	9			
1. BSE Sensex / S&P CNX Nifty											
(i) End-period	13072	15644	14651	13462	3822	4735	4318	4041			
(ii) Average	12277	16569	13998	16060	3572	4897	4121	4793			
2. Coefficient of Variation	11.1	13.7	3.6	6.3	10.4	14.4	3.9	6.1			
3. Price-Earning Ratio											
(end-period)*	20.3	20.1	21.1	16.5	18.4	20.6	20.6	17.3			
4. Price-Book Value Ratio*	5.1	5.2	4.9	3.6	4.9	5.1	5.4	4.0			
5. Yield* (per cent per annum)	1.3	1.0	1.1	1.3	1.3	1.1	1.1	1.4			
6. Listed Companies	4,821	4,887	4,842	4,909	1,228	1,381	1,283	1,407			
7. Cash Segment Turnover											
(Rupees crore)	9,56,185	15,78,856	2,72,782	3,50,729	19,45,285	35,51,038	5,69,800	8,13,578			
8. Derivative Segment											
Turnover (Rupees crore)	59,007	2,42,308	50,357	10,474	73,56,242	1,30,90,478	21,46,272	26,48,403			
9. Market Capitalisation											
(Rupees crore) @	35,45,041	51,38,014	41,68,272	43,75,021	33,67,350	48,58,122	39,78,381	41,03,651			
10. Market Capitalisation to GDP											
Ratio (per cent)	85.5	109.5	88.8	93.2	81.2	103.5	84.8	87.4			

\* : Based on 30 scrips included in the BSE Sensex and 50 scrips included in the S&P CNX Nifty. @: As at end-period. **Source:** Bombay Stock Exchange Ltd. (BSE) and National Stock Exchange of India Ltd. (NSE).

