

5.1 Financial markets were flush with liquidity over the greater part of 2002-03, bolstered by sustained capital inflows and a liquidity overhang. There was a general easing of market conditions in terms of turnover and rates, the latter enabled by the accommodative monetary policy stance. In the money markets, key rates ruled close to the repo rate, except for a transient firming in mid-May 2002 and episodic spurts after October 2002. Market sentiment recovered quickly from border tensions in May 2002 and over the rest of the year, there was a modest appreciation of the spot exchange rate against the US dollar and a softening of forward premia. Repeated price rallies in the government securities market pushed down yields and flattened the yield curve, abating temporarily in February 2003 as fears of war in Iraq mounted. Yields on corporate bonds fell more sharply than those on gilts as risk perceptions improved. While bank deposit rates decreased in response to monetary policy impulses, this was not

fully reflected in the lending rate reductions in the credit market. Activity in the credit market, however, picked up on the back of an upturn in demand from a range of industries. Equity markets remained subdued during the year, tracking developments in international markets. Uncertainty surrounding the disinvestment strategy and the lack of appetite among foreign institutional investors dampened market sentiment (Table 5.1).

5.2 Global financial markets witnessed major declines in the first half of 2002-03 with investor confidence severely undermined by financial distress among major corporate entities and geo-political tensions. Equity markets went through their steepest declines since September 11, 2001. The negative sentiment spilled over into the corporate bond markets where issuances slowed down and credit spreads widened. Sovereign spreads on emerging market paper rose markedly during June-July 2002. Activity

**Table 5.1: Money, Gilt, Foreign Exchange and Equity Markets**

Month	Call Money		Gilt	Foreign Exchange			Liquidity Management				Equity			
	Average Daily Turnover (Rs. crore)	Average Call Rates (Per cent)	Turnover in Govt. Securities (Rs. crore)+	Average Daily Inter-bank Turnover (US \$ million)	Average Exchange Rate (Rs. per US \$)	RBI's net Foreign Currency Sales (-)/ Purchases (+) (US \$ million)	Forward premia 3-month (Per cent)	Net OMO Sales(-) Purchases (+) (Rs. crore)	Average Daily Repo (LAF) (Rs. crore)	Average Daily Reverse Repo (LAF) (Rs. crore)	Average Daily Turnover (Rs. crore)	Average Daily Turnover (Rs. crore)	Average BSE Sensex	Average S & P CNX Nifty
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>2002-03</b>														
April	41,616	6.58	1,93,091	6,541	48.92	477	6.12	-5,307	8,119	1,322	1,312	2,424	3435	1121
May	39,326	6.90	1,20,173	4,966	49.00	86	6.23	-1,525	1,924	17	1,279	2,499	3303	1080
June	28,905	6.04	1,16,846	4,836	48.97	241	5.37	-189	10,420	0	1,166	2,212	3257	1066
July	32,386	5.75	2,35,586	4,922	48.76	1,829	4.40	-6,538	17,092	0	1,162	2,235	3215	1035
August	32,269	5.72	2,44,717	4,564	48.59	1,179	4.09	-7,025	19,046	0	1,132	2,196	3053	978
September	28,883	5.75	1,70,345	4,429	48.44	965	3.94	-6,355	19,483	0	1,221	2,325	3086	987
October	30,469	5.73	2,48,038	4,156	48.37	1,171	3.81	-71	20,653	0	1,316	2,472	2950	955
November	25,821	5.45	3,34,605	5,093	48.25	2,115	3.66	-11,073	13,859	2	1,367	2,703	3058	992
December	24,305	5.58	2,95,943	5,054	48.14	1,679	3.32	-4,548	10,911	0	1,456	2,951	3316	1074
January	24,034	5.66	3,55,821	4,941	47.93	1,785	3.42	-10,996	6,325	13	1,343	2,816	3328	1073
February	20,682	5.71	1,39,689	5,206	47.73	2,335	3.55	-88	4,259	45	1,235	2,542	3279	1056
March	24,357	5.86	1,31,947	5,542	47.64	1,849	3.60	-66	2,265	1,570	1,013	2,158	3156	1016
<b>2003-04</b>														
April	17,338	4.87	2,26,803	5,585	47.38	1,432	2.08	-7	27,372	109	1,041	2,449	3037	965
May	18,725	4.87	2,99,933	5,960	47.08	2,342	1.10	-5,569	25,223	10	1,072	2,604	3033	963
June	20,544	4.91	3,00,504	5,805	46.71	896	2.76	-44	24,805	-	1,187	2,933	3387	1069
July	18,698	4.90	3,04,587	5,986	46.23	3,146	2.65	-57	42,690	39	1,434	3,429	3665	1150
OMO: Open Market Operations.			+ Outright turnover in Central Government dated securities.			LAF: Liquidity Adjustment Facility.								
BSE: Bombay Stock Exchange.			NSE: National Stock Exchange.											

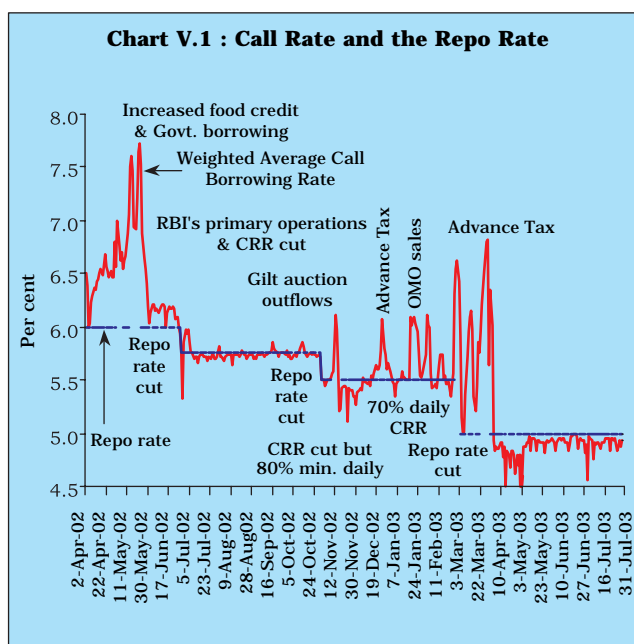
in all segments of the international banking market experienced a pronounced slowdown, mainly due to a decline in inter-bank lending and subdued credit demand. A revival of investor confidence set in during October and equity markets began to recover. Corporate bond markets shared in this optimism as credit spreads narrowed. Emerging markets were dominated by local developments. International banking activity stabilised with some improvement in credit to non-banks. Nevertheless, sentiment in international financial markets remained uncertain with the weakening of the global recovery in the fourth quarter and the downward adjustment in expectation of stronger corporate earnings in the near term. Emerging markets were bound down by sluggish capital inflows, although the cessation of outflows of private capital shored up sentiment considerably towards the close of the year. In the foreign exchange markets, the US dollar depreciated against the Euro and Yen reflecting diminished attractiveness of US assets, a slowdown in the Euro area's diversification away from euro-denominated assets, growing apprehensions about the US's large trade deficit and geo-political concerns.

### MONEY MARKET

#### Call/ Notice Money Market

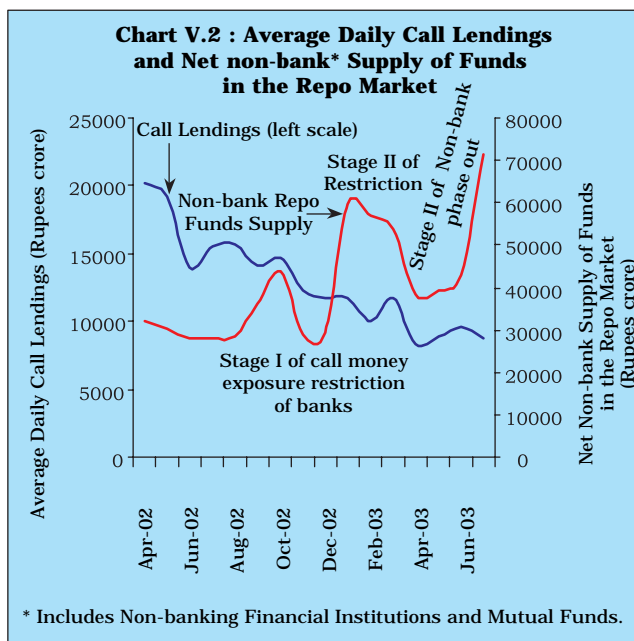
5.3 Call/notice money market activity during 2002-03 was dominated by shifts in liquidity conditions. The usual beginning-of-the-year liquidity evinced considerable appetite for LAF repos. The commencement of the Centre's market borrowing and open market sales for improving price discovery evened out the excess liquidity, and the weighted average call borrowing rate edged above the Bank Rate of 6.5 per cent at the end of April (Chart V.1). As the borrowing programme intensified, draws of food credit began and border tensions surfaced in May, market liquidity tightened, driving up the average call rate to a high of 7.7 per cent on May 22, 2002. The demand for LAF repos waned until a reverse repo auction and a series of private placements of government securities with the Reserve Bank brought the call rate down by end-May 2002 (Appendix Table V.1).

5.4 Easing of monetary conditions - reduction of CRR - and redemption inflows drove the call rates below the repo rate by the fourth week of June. The reduction in the repo rate on June 27 started a long phase of stability in the call money market with the call rates trailing just below the repo rate up to October 2002. Amidst ample liquidity and phasing out of non-



banks from the call/notice money market, as the first stage of call money exposure limits for banks became effective in October, the turnover in call/notice money market segment declined while the participation and exposure in the repo market segment increased (Chart V.2).

5.5 Call/notice money market conditions remained relatively volatile in the remaining part of the year, with rates edging up around mid-November due to gilt auction outflows and higher minimum average daily CRR maintenance requirements. Another round of monetary policy easing calmed the market and the



\* Includes Non-banking Financial Institutions and Mutual Funds.

Table 5.2 : Summary Statistics on Call/Notice Money Borrowing Rates

1	Low				High				Weighted Average			
	Min. (%)	Max. (%)	Avg. (%)	CV	Min. (%)	Max. (%)	Avg. (%)	CV	Min. (%)	Max. (%)	Avg. (%)	CV
2	3	4	5	6	7	8	9	10	11	12	13	
<b>2001-02</b>	<b>3.61</b>	<b>8.00</b>	<b>5.70</b>	<b>0.12</b>	<b>6.66</b>	<b>22.00</b>	<b>8.09</b>	<b>0.25</b>	<b>6.34</b>	<b>13.13</b>	<b>7.17</b>	<b>0.11</b>
<b>2002-03</b>	<b>0.50</b>	<b>6.50</b>	<b>4.59</b>	<b>0.17</b>	<b>5.20</b>	<b>20.00</b>	<b>6.36</b>	<b>0.15</b>	<b>5.01</b>	<b>10.35</b>	<b>5.89</b>	<b>0.09</b>
<b>2002-03</b>												
April	3.54	5.75	5.19	0.12	6.45	20.00	7.43	0.32	5.99	10.35	6.58	0.11
May	3.54	6.50	5.62	0.10	6.55	9.25	7.55	0.08	6.04	7.73	6.90	0.06
June	3.00	5.30	4.82	0.13	6.25	7.00	6.51	0.03	5.32	6.22	6.04	0.04
July	2.71	4.95	4.46	0.15	5.80	6.70	5.99	0.04	5.66	5.97	5.75	0.01
August	3.00	4.76	4.43	0.08	5.80	6.25	5.92	0.02	5.64	5.77	5.72	0.00
September	4.00	4.77	4.68	0.04	5.80	6.55	6.21	0.05	5.69	5.85	5.75	0.01
October	4.00	4.83	4.47	0.06	5.75	6.55	6.11	0.05	5.51	5.85	5.73	0.01
November	0.50	5.00	3.60	0.38	5.50	7.20	5.83	0.07	5.10	6.11	5.45	0.04
December	3.50	4.70	4.32	0.07	5.50	6.80	6.08	0.06	5.27	6.07	5.58	0.03
January	3.50	5.00	4.45	0.07	5.60	7.50	6.19	0.08	5.35	6.11	5.66	0.04
February	2.00	5.40	4.45	0.14	5.60	7.10	6.12	0.07	5.34	6.62	5.71	0.07
March	3.00	5.37	4.47	0.13	5.20	12.00	6.91	0.16	5.01	6.83	5.86	0.09
<b>2003-04</b>												
April	1.00	5.25	2.94	0.38	5.05	12.00	5.73	0.30	4.50	6.03	4.87	0.07
May	1.80	4.00	3.32	0.25	5.00	5.25	5.10	0.01	4.46	4.97	4.87	0.02
June	2.00	4.00	3.60	0.15	4.88	5.50	5.11	0.02	4.56	4.99	4.91	0.02
July	2.25	4.00	3.70	0.14	5.00	5.50	5.07	0.02	4.75	4.97	4.90	0.01
Min. : Minimum	Max. : Maximum			Avg. : Average				CV : Co-efficient of variation				

call rates softened below the repo rate by the end of the month. An increase in the notified amount of 91-day Treasury Bill auctions, application of second stage call money exposure restrictions and advance tax outflows moved the call rates above the repo rate in December 2002. Liquidity conditions eased as the minimum average daily CRR maintenance requirement was lowered.

5.6 The call money rates firmed up intermittently in the last quarter of the year - in mid-January, 2003 on account of sizeable open market sales and in the later part of February 2003 due to geopolitical uncertainties and on-tap sale of State loans. The repo rate reduction on March 3, 2003 brought the call rates down for a brief period before they rose again towards the end of the month in a typical end-of-the-year upturn (Table 5.2).

5.7 The year 2003-04 began with softer call rates during April 2003 following inflows on account of large deferred expenditure undertaken by the government, purchase of foreign currency by the Reserve Bank and unwinding of the year-end tightness of liquidity. Capital inflows continued and monetary conditions were eased with a reduction in CRR in June 2003. The call rates settled at sub-repo levels during May-August 2003 (up to August 13) reflecting ample liquidity conditions. The turnover in

call/notice money market fell in July 2003 subsequent to the application of call lending restrictions on the non-banks in June 2003.

### Other Money Market Segments

#### Term Money Market

5.8 The main factor that has inhibited the development of term money and other money market segments in India is the absence of a smooth rupee yield curve providing an anchor for expectations for longer tenor. The skewness in liquidity among participants is also proving to be a deterrent for proper development of this market. Furthermore, corporates' preference for "cash" credit rather than for "loan" credit generally forces banks to deploy a large amount in the call money market instead of the term money market to meet sudden demand from corporates. For all these reasons, market activity tends to be concentrated predominantly in the call segment. Activity in the term money market during 2002-03 was dormant up to October but for an aberrational spurt in August due to temporary funds invested in the term money segment towards the later part of the month. With the imposition of prudential limits on exposure to the call/notice money market on banks and primary dealers, term money transactions rose from November 2002 onwards with

**Table 5.3 : Activity in Other Money Market Segments**

(Rupees crore)

Month	Average Daily Turnover in Term Money Market	Transactions in Repo Market (Outside Reserve Bank)	Commercial Paper (Outstanding Amount)	Certificates of Deposit (Outstanding Amount)	Commercial Bills Rediscounted by commercial banks	Forward Rate Agreements/ Interest Rates Swaps (Notional Amount)
1	2	3	4	5	6	7
<b>2002-03</b>						
April	225	47,020	8,046	1,393	371	88,813
May	123	44,431	8,111	1,360	463	1,03,993
June	135	37,848	8,447	1,359	701	1,17,644
July	108	34,170	8,520	1,303	400	1,24,453
August	1,179	33,281	9,125	1,007	341	1,32,354
September	247	41,768	9,549	1,236	572	1,31,898
October	117	46,595	8,426	1,394	502	1,31,340
November	392	34,503	8,599	1,219	332	1,53,260
December	454	37,651	9,025	1,163	462	1,61,566
January	288	66,599	8,554	1,226	455	1,92,170
February	281	65,413	7,070	1,125	295	2,18,816
March	546	74,236	5,749	908	105	2,44,161
<b>2003-04</b>						
April	604	41,815	5,994	1,485	164	2,49,449
May	455	43,328	6,820	1,996	334	2,84,048
June	610	48,605	7,108	2,183	393	2,93,127
July	573	74,936	7,557	–	364	3,01,062

– Not Available.

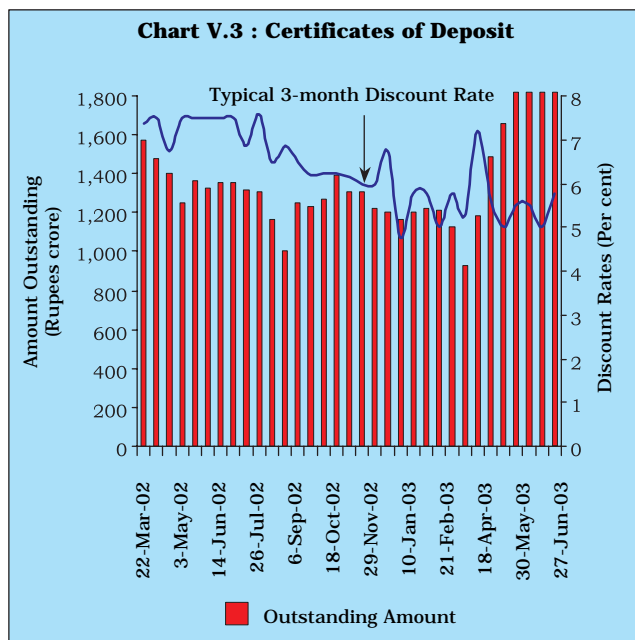
the average daily turnover turning out to be significantly higher in 2002-03. The momentum has been maintained during 2003-04 so far with a further phase-out of non-banks from call/notice money market in June 2003 (Table 5.3).

*Certificates of Deposit issued by Banks*

5.9 The market for certificates of deposit (CDs), which are essentially securitised high cost short-term time deposits, tends to be active when liquidity conditions tighten and banks try to meet the liquidity gap by issuing CDs, often at a premium. Comfortable liquidity kept the outstanding amount of CDs low during 2002-03 (Appendix Table V.2). The typical discount rate for 3-month CDs softened, especially during the second half of the year (Chart V.3). During 2003-04 (up to June 27), the issuances of CDs rose and the typical discount rate showed some hardening.

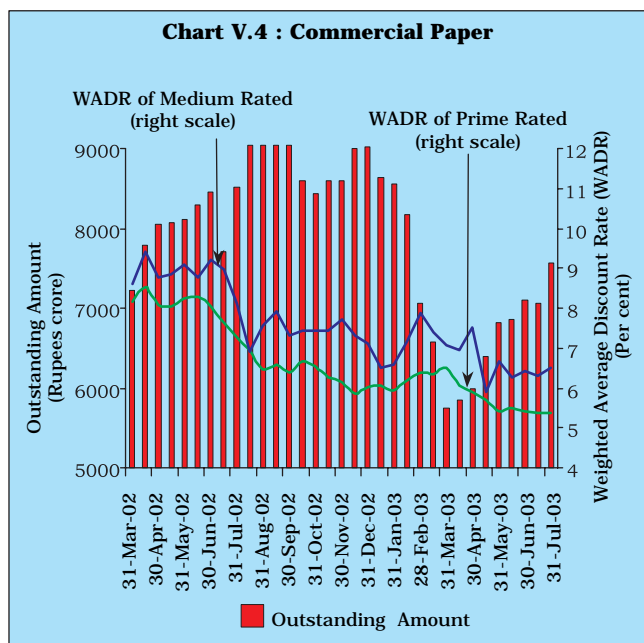
*Commercial Paper*

5.10 Commercial Paper (CPs) and CDs exhibit contrasting behaviour. Activity in the CP market picks up amidst ample liquidity conditions when eligible entities can raise funds through CPs at an effective rate of discount lower than the lending rate of banks. The outstanding amount of CPs rose during the first three quarters of 2002-03 before shifts in

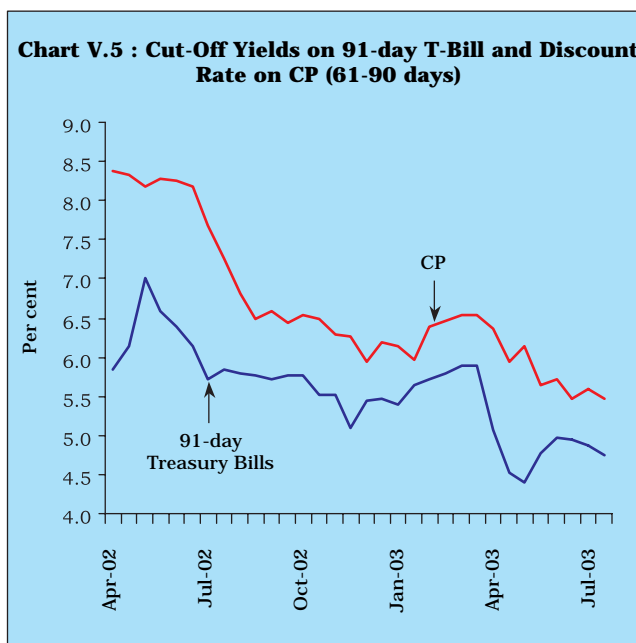


market sentiment drove down issuances (Chart V.4 and Appendix Table V.3). A marginal decline in the cumulative flow of primary issuances of CPs during 2002-03 as against 2001-02 reflected primarily a fall in primary issuances by the manufacturing companies which had access to sub-PLR lending.

**Chart V.4 : Commercial Paper**



**Chart V.5 : Cut-Off Yields on 91-day T-Bill and Discount Rate on CP (61-90 days)**



On the other hand, the primary issuances of leasing and finance companies and those of financial institutions moved up. The weighted average discount rate (WADR) of the CP softened, with the spread between the prime rated and medium rated companies narrowing during 2002-03.

5.11 The outstanding amount of CPs has risen so far during 2003-04 (up to July). Ample liquidity conditions in the beginning of 2003-04 generated activity in the CP market. The WADR declined steadily. The spread between the yields of CP (61-90 days) and 91-day Treasury Bills widened around mid-May 2003 reflecting the substantial drop in the

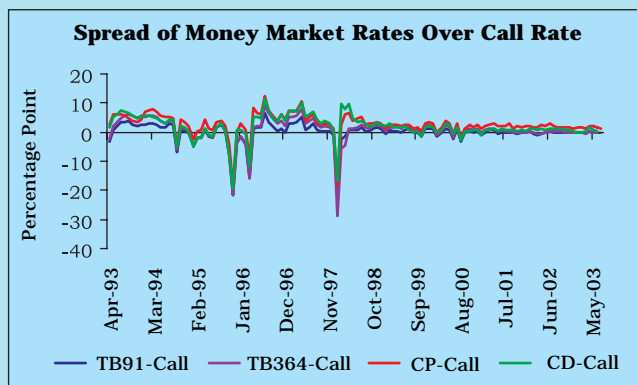
cut-off yields of 91-day Treasury Bills. A recovery in the 91-day Treasury Bill yields narrowed the spread subsequently (Chart V.5).

5.12 Money market rates have exhibited a significant degree of synchronicity indicating that they are increasingly getting jointly determined by a common set of factors embodied in macroeconomic and financial conditions. In contrast to earlier instances of joint behaviour in episodes of uncertainty, the recent convergence has occurred under ample liquidity conditions as well as orderliness and selectivity in bid/ offer activity (Box V.1)

**Box V.1**

**Synchronicity in Money Market Segments**

A significant feature of financial market behaviour during 2002-03 was a close co-movement of market segments at the short-end, i.e., call money, Treasury Bills, CP and CDs. Rates in these markets frequently joined the call rates in dipping below the repo rate, the informal floor for the financial market spectrum in India, on many occasions during the course of the year. Similar co-movement was evident in turnovers. The consequent narrowing of spreads at the short end of the market spectrum and the strength of this synchronicity has implications for the operational efficiency of markets as well as for the effectiveness of the transmission of monetary policy which typically operates at the short end of the market structure (Chart). Recognition of this interesting development was reflected in the Statement on Monetary and Credit Policy for 2003-04:



(Contd....)

(Concl....)

"interest rates in money market instruments converged to a narrow band....".

In the literature, convergence of risk-adjusted returns is regarded as a necessary condition for market integration, though not a sufficient one. In particular, co-movement in rates is suspect since financial market rates show 'random walk' in that they exhibit no tendency to return to trend value once disturbed. Moreover, association in rate movements may indicate contagion rather than integration. Empirical investigation conducted in the Reserve Bank in a vector error correction model (VECM) framework indicated contemporaneous episodes of excess returns in the call, Treasury Bill, CP and forward segment of the foreign exchange market during periods of turbulence in financial markets. Simultaneous presence of excess returns disappeared with the return of stability in market activity. This asymmetric integration constrains the conduct of monetary policy since simultaneous interventions are required in the disturbed segments and monetary policy could be imprisoned in a self-fulfilling vicious circle.

It is important, therefore, to carefully sift through the empirical evidence on market integration for calibrating the reaction of monetary policy to market movements. Correlation may well obscure the differences in maturity, liquidity and risk characteristics. In particular, it is important to closely scrutinise the stylised evidence of market synchronicity in periods of calm as opposed to the earlier exercise which was conducted on episodes of perturbation. Similar efforts have been conducted in the context of mature financial markets. With the introduction of the gilt repo in the UK money market, tighter spreads were observed between the two-week market rate and the official repo rate, resulting in lower money market volatility at the very short end of the money market curve with no sign of volatility transmission up the curve. Stability in the long-run relationship between the policy rate and T-bill rate under shifting monetary policy regimes was observed in an error correction framework capturing both asymmetries and non-linearities in interest rate dynamics

in the US. Co-movement in various money market rates is often explained by the market's expectations about the operating rate over the term of the instrument *plus* a risk premium. A broad conclusion emerging from these country specific studies is that integration in money market segments tends to reduce volatility. This would work towards improving the transmission of monetary policy.

Empirical investigation of the relationship between the money market rates in a co-integration framework in India indicates the presence of a unique and stable long-run co-movement, despite their being unstable (non-stationary) individually. A vector error correction process suggests that the call rate adjusts rapidly to exogenous disturbances and 'herds' other money market rates back to equilibrium. These findings indicate that money market segments are getting integrated even in periods of normalcy, and the call rate could well emerge as the reference rate for the money market.

Broadbasing of the Negotiated Dealing System and the establishment of CCIL as a central counter party risk manager would foster market integration by reducing uncertainty relating to funds position. The implementation of RTGS would reduce the settlement risks and strengthen the co-movement of money market rates. This would also help in developing a continuous short-term rupee yield curve through efficient price discovery.

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#### Commercial Bill Market

5.13 The market for bills rediscounting recorded a general decline in activity during 2002-03. The outstanding amount of commercial bills rediscounted by commercial banks with various financial institutions (FIs) was nearly half of the volume in April 2002 than a year ago. As the year progressed, commercial bill rediscounting activity by the FIs trailed off substantially since May. Small Industrial Development Bank of India (SIDBI), however, continued to rediscount a major part of the commercial bills as it accounted for 78.2 per cent of the total transactions in this market segment during 2002-03. During 2003-04 (up to July 2003), the market for bills rediscounting

recorded a rise with SIDBI continuing to remain the major participant.

#### Repurchase Agreements (Other than LAF)

5.14 During 2002-03, the weekly transaction volumes (first leg only) in the market repo segment ranged between Rs.5,248 crore and Rs.18,749 crore. The imposition of call money exposure restriction on banks and primary dealers coupled with the process of phasing out of non-banks from the call/notice money market prompted market participants to take increased recourse to the repo market, thereby driving up the average weekly transactions in the repo market to Rs.14,898 crore during mid-December 2002 to

March 2003 from Rs.9,087 crore during April to mid-December 2002. Repo rates generally ranged between 4.00 per cent and 8.50 per cent during the year except for occasional spikes.

5.15 During the year 2003-04 (up to July 25, 2003), the weekly volume (first leg only) in the repo market ranged between Rs.6,030 crore and Rs.20,725 crore and rates generally ranged between 2.50 per cent and 6.50 per cent. The volume of transactions in the repo market rose more sharply in July 2003, reflecting increased participation of non-banks as their lendings in the call/notice money market were further scaled down in June 2003.

#### *Forward Rate Agreements (FRAs)/ Interest Rate Swaps (IRS)*

5.16 There was a sharp increase in the volume in the Forward Rate Agreements (FRAs)/Interest Rate Swaps (IRS) market (See Table 5.3). Despite a significant increase in the number and amount of contracts, participation in the market continues to remain restricted to select foreign and private sector banks and a primary dealer. In a majority of these contracts, National Stock Exchange-Mumbai Inter-bank Offered Rate (NSE-MIBOR) and Mumbai Inter-bank Forward Offered Rate (MIFOR) were used as the benchmark rate. The other benchmark rates used include yield on government paper with one-year residual maturity and primary cut-off yield on 364-day Treasury Bills.

#### *Collateralised Borrowing and Lending Obligation*

5.17 Collateralised Borrowing and Lending Obligation (CBLO) was operationalised as a money market instrument through the Clearing Corporation of India Ltd. (CCIL) on January 20, 2003 with original maturity between one day and up to one year. There were 52 members in CCIL's CBLO segment as on July 31, 2003. The total turnover in CBLO stood at Rs.7,925 crore, with a daily average turnover of Rs.74 crore.

### **FOREIGN EXCHANGE MARKET**

5.18 Tightness prevailed in the foreign exchange market during the first three months of 2002-03. Concerns regarding rising crude oil prices, tensions in Gujarat and short covering by importers exerted pressure on the spot exchange rate of the Rupee vis-a-vis the US dollar which depreciated by 0.4 per cent during April 2002. Heightened border tensions led to a burst of hectic short covering which dragged down the spot rate even further in May. A renewal of demand for US dollars amidst receding supplies of

foreign investment kept the spot rate weak in June. The excess demand conditions were reflected in the gap in the merchant segment of the spot market turnover. In the inter-bank segment, banks took positions with respect to merchant activity.

5.19 The spot exchange rate firmed up from the third week of June as rising repatriation of export proceeds eased supply conditions and demand from corporates and importers moderated. The weakening of the US dollar against major currencies also shored up the Rupee. Heavy inflows in the last week of June on account of FDI strengthened the recovery.

5.20 Supplies continued to rise in the second quarter from export proceeds, unwinding of long dollar positions by banks and remittance inflows. The US dollar continued to weaken against the Euro and the Japanese Yen reflecting weak US economic data and financial irregularities in the US corporate sector which lowered investor confidence. The gains in the spot rate, however, were capped by demand from public sector banks. In terms of monthly averages, the spot exchange rate appreciated by 1.0 per cent between April-September 2002 despite net purchases from the market by the Reserve Bank.

5.21 The spot rate continued to gain strength as remittances from exporters, non-resident Indians and foreign direct investment continued while demand remained slack during October-November. Falling global crude oil prices and rising levels of foreign exchange reserves improved market sentiment and the spot exchange rate appreciated by 0.7 per cent in the third quarter with purchases by the Reserve Bank arresting further gains (Table 5.4). Lingering weakness in the US dollar against major currencies owing to dismal US economic fundamentals contributed to the Rupee's gains. Purchases by the Reserve Bank checked the spot appreciation at 1.1 per cent at end-November 2002 over end-March 2002.

5.22 An increase in foreign investment flows from end-December 2002, despite mounting tensions in the Middle East, kept sentiments in the market upbeat and poised for further gains. Nevertheless, the real effective exchange rate (Reserve Bank's five - country trade weighted indices - Base: 1993-94=100) of the Rupee was undervalued by around three per cent by March 2003 over March 2002, given the steep decline in US dollar against other currencies (Chart V.6).

5.23 Soaring global crude oil prices resulting from war fears weighed heavily on market sentiment in the last quarter of the year, despite the significant liberalisation of banks' overseas investment and

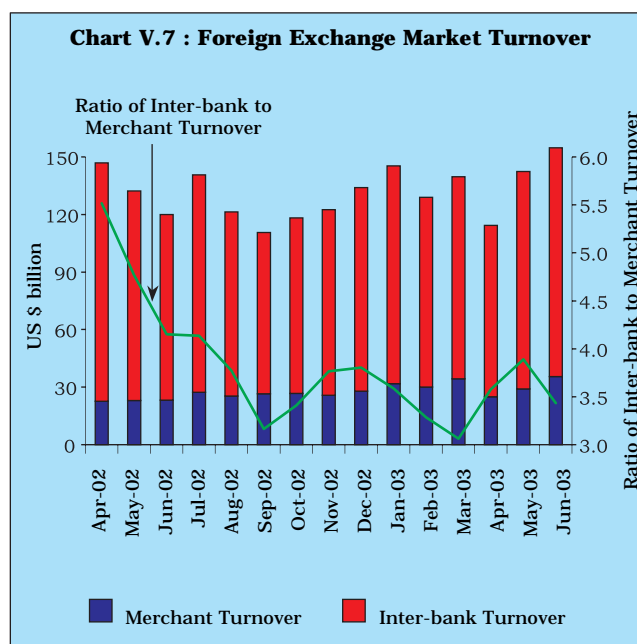
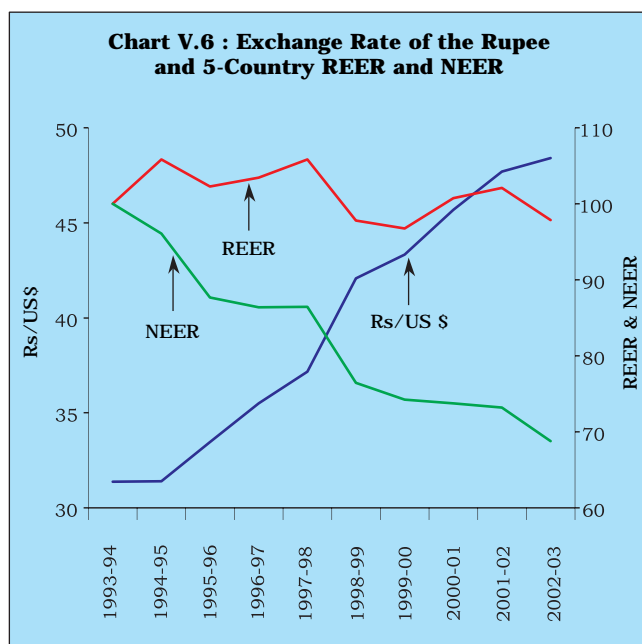
**Table 5.4 : Purchases and Sales of US dollars by Reserve Bank**

(US \$ million)

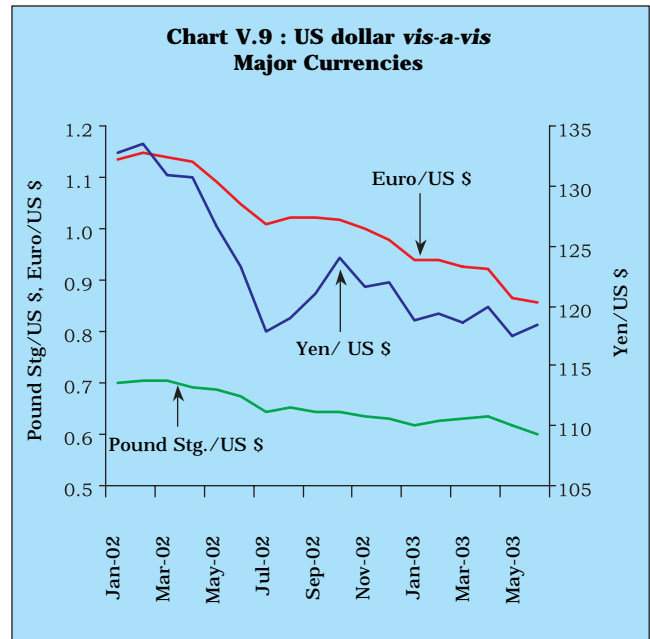
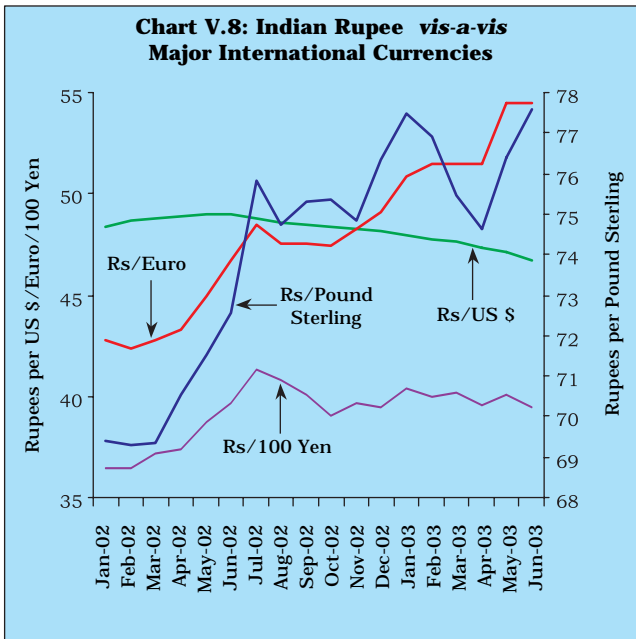
Month	Purchases (+)	Sales (-)	Net (+/-)	Cumulative (over end-March)	Outstanding Net Forward Sales (-)/ Purchases (+) at the end of month
1	2	3	4	5	6
<b>2002-03</b>					
April	2,082	1,606	477	477	(-)400
May	1,233	1,147	86	563	(-)400
June	812	571	241	803	(-)400
July	2,514	685	1,829	2,632	(-)400
August	2,638	1,459	1,179	3,811	(-)200
September	2,922	1,956	965	4,776	(+)475
October	2,594	1,423	1,171	5,947	(+)638
November	3,087	972	2,115	8,062	(+)812
December	3,231	1,552	1,679	9,741	(+)2,260
January	2,831	1,046	1,785	11,525	(+)2,872
February	3,506	1,171	2,335	13,860	(+)2,577
March	3,189	1,339	1,849	15,709	(+)2,420
<b>2003-04 (so far)</b>					
April	2,943	1,511	1,432	1,432	(+) 3,281
May	3,978	1,636	2,342	3,774	(+) 4,186
June	1,879	982	896	4,670	(+) 3,866
July	6,096	2,950	3,146	7,815	(+) 4,549

relaxation of restrictions in the forward market. Robust inflows of exports proceeds and inward remittances, however, continued to provide support to the spot exchange rate. On the basis of monthly averages, the Rupee appreciated against the US dollar by 2.3 per cent in 2002-03.

5.24 Activity in both the merchant and inter-bank segments of the foreign exchange market rose strongly (Chart V.7 and Appendix Table V.4). The inter-bank to merchant turnover ratio, however, declined, indicating the stability of market conditions and the narrowing of interest differentials.







5.25 In cross currency trade, the Rupee weakened against the Euro, the Pound Sterling and the Japanese Yen during the first four months of 2002-03. The Rupee regained strength against the three currencies over the period August-October 2002 in alignment with the US dollar. With the US dollar's weakening from November 2002 onwards, the Rupee steadily depreciated against other major currencies over the rest of the year (Chart V.8).

5.26 In terms of monthly averages, the US dollar depreciated against the Euro, the Pound Sterling and the Japanese Yen (Chart V.9). The US dollar's depreciation against the major currencies at the beginning of 2002 became more pronounced during the course of the year with the shift in foreign capital from US financial products to the European market. The US dollar was also weighed down by factors such as the impending war with Iraq and tensions concerning North Korea. The softness of the dollar has been ascribed to several fundamental factors which include the large and persistent current account deficit of the US, subdued growth with uncertain prospects for a faster recovery and the worsening of geo-political environment. For non-dollar area investors with investments in dollars, there was an erosion in the value of portfolios by more than 30 per cent in just one year and any further fall in the US dollar could trigger a major change in the pattern of global capital flows. Developing countries such as South-East Asian economies, whose exchange rates are linked to the US dollar, benefited from the soft dollar environment as their exports to non-dollar areas

became competitive. If the fall in the US dollar continues there is, however, a risk that the interest rate cycle in the US may reverse much earlier than expected.

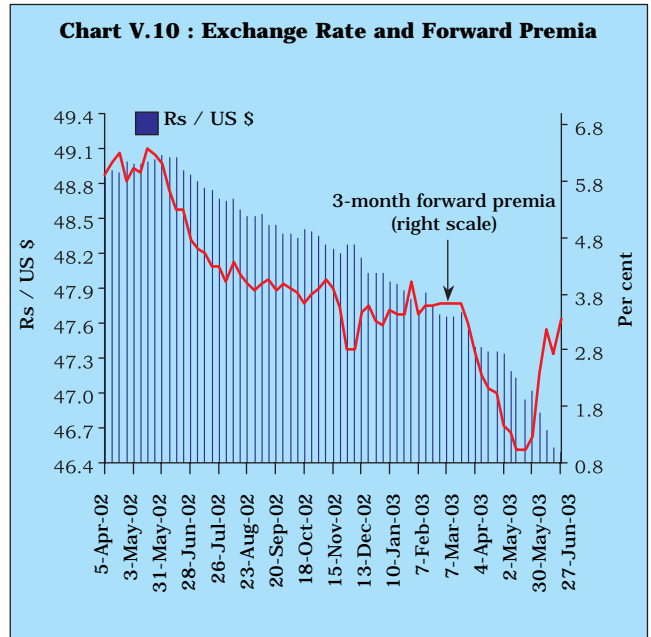
5.27 The Rupee continued to gain strength against the US dollar during the first four months of 2003-04. In terms of monthly average exchange rates, the Rupee appreciated by 3.0 per cent against the US dollar during the period. Sustained foreign exchange inflows from export proceeds, remittances and investments by FIIs continued to provide strength to the Rupee in the face of subdued demand for the US dollar. Absorption of flows by the Reserve Bank/state-run banks, however, kept the Rupee in the range of Rs.46.09- Rs.47.46 per US dollar during April-July 2003. The outlook for the Rupee remains buoyant with a lingering weak dollar against the other major currencies, large inflows of dollar through entities such as exporters and foreign funds and rising foreign exchange reserves. The exchange rate of the Rupee was Rs. 45.91 per US dollar on August 13, 2003.

5.28 In cross-currency trade, the Rupee continued to weaken against the Euro after US dollar lost grounds against this unit in overseas markets. In terms of monthly average exchange rates, the Rupee depreciated against the Euro by 2.0 per cent during the first four months of 2003-04. The Rupee, however, appreciated by 0.4 per cent against the Pound Sterling and 3.0 per cent against the Japanese Yen during the same period.

Forward Market

5.29 Excess demand conditions prevailed in both merchant and inter-bank segments of the forward exchange market during the first quarter of 2002-03. One-month and the six-month forward premia hardened in May. As the spot market recovered in June, excess supply conditions characterised the forward market and continued to prevail during the rest of the year. The excess supply conditions in the forward segment necessitated a reversal in the strategy of intervention by the Reserve Bank. Outstanding net forward sales of the Reserve Bank remained negative up to August 2002. Forward premia in all maturities declined steadily reflecting heavy forward sales by exporters and easy liquidity conditions in the domestic money market (Chart V.10).

5.30 The covered interest parity (CIP) condition would suggest that forward rates reflect the differential between domestic and foreign interest rates. In the recent period, however, downward movements in the forward premia have been driven by the anticipation of further appreciation of the spot exchange rate against the US dollar. This is broadly consistent with the theory of efficient markets which postulates that the forward rate is a predictor of the future spot rate. This phenomenon is strengthened by a rush to borrow foreign exchange overseas at relatively low interest rates and convert it into rupee assets which attract a relatively higher rate of return. If the spot exchange rate does appreciate, the borrowers of foreign exchange expect to make a



financial gain (as fewer rupees would be required to repay the "borrowed" dollars). This situation is also reflected in banks going "short" on dollars during intra-day and inter-day foreign currency trade. At the same time, however, corporates and other market participants accumulate large "unhedged" exposures on their future dollar obligations such as imports and debt service payments. These conflicting considerations warrant a re-appraisal of the intrinsic relationship between spot and forward exchange rates (Box V.2).

Box V.2

Spot and Forward Exchange Rates: Revisiting the Fundamentals

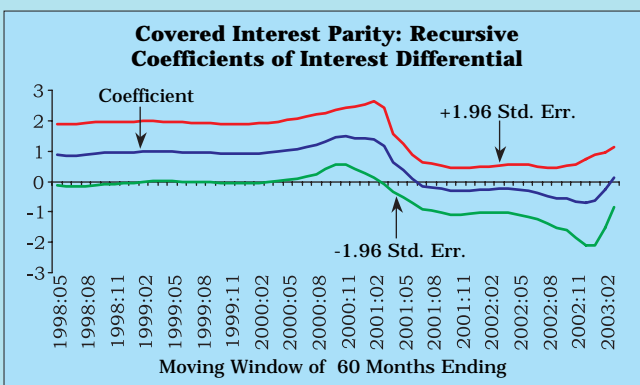
Foreign exchange market efficiency is usually examined through evaluation of the co-movement of domestic and foreign interest rates and the exchange rate. Two key parity conditions - 'covered parity' and 'uncovered parity' - provide a measurement of the extent of market integration and efficiency. According to the covered interest parity (CIP) condition, the forward premium/discount should equal the interest rate differential between domestic and foreign currency assets. On the other hand, the uncovered interest parity (UIP) condition postulates that the expected change in the exchange rate should equal the interest rate differential. Taken together, the CIP and UIP suggest that forward premia/discounts are an unbiased predictor of the future spot exchange rate. The interest parity hypotheses are important from a policy perspective, since deviations from UIP provide scope for central banks to undertake sterilised foreign exchange market intervention as well as interest rate defence of the exchange rate.

Available empirical evidence in regard to advanced economies suggests that CIP generally holds for assets of similar maturity and similar risk profile; profitable arbitrage opportunities appear for longer maturities. As regards empirical evidence for UIP, it is overwhelmingly rejected. Its failure has been attributed, *inter alia*, to sudden shifts in risk perceptions and expectations that characterise foreign exchange markets while pricing 'news' as well as interventions.

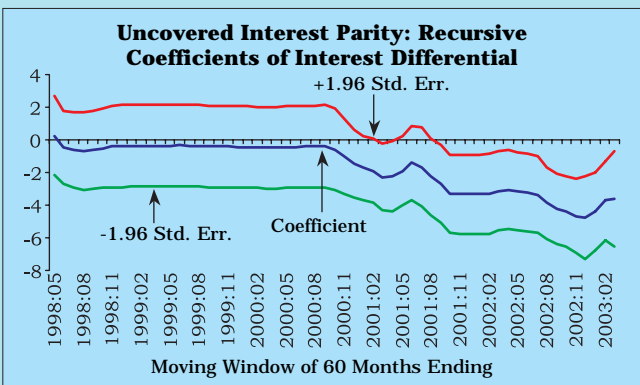
An empirical examination of these parity conditions for India covering monthly data was undertaken over the period April 1993 to March 2003. The interest differential, measured as the difference between 3-month Treasury Bill yields for India and the US, is found to be positively related to forward premia but the operation of CIP is not validated on account of imprecision in the estimated coefficients and the presence of correlated errors.

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As regards UIP, the results negate its existence, a finding corroborating the overwhelming international evidence. The residuals in all the estimated equations



turn out to be serially correlated, indicative of market inefficiency.

An alternative test of UIP is based on the notion that there should not be any systematic excess returns in an efficient foreign exchange market, *i.e.*, interest rate differential *less* capital gains/losses from exchange rate movements should be a 'white noise' process. Over the sample period, the excess return measure is not statistically significant and is also found to be 'stationary'. This indicates no systematic and predictable excess returns in the Indian foreign exchange market. Transient excess returns generated by lack of full market integration dissipate rapidly, *i.e.*, within two months.

Despite the mixed evidence on market efficiency, forward premia and interest differentials tend to move together in the long-run. Deviations from the parity conditions can be attributed to prudential restrictions on banks' borrowing/investments abroad. Central bank interventions in the market can also affect market behaviour. Finally, short-run deviations from UIP suggest that sterilised foreign exchange market intervention can be effective in ensuring orderly conditions.

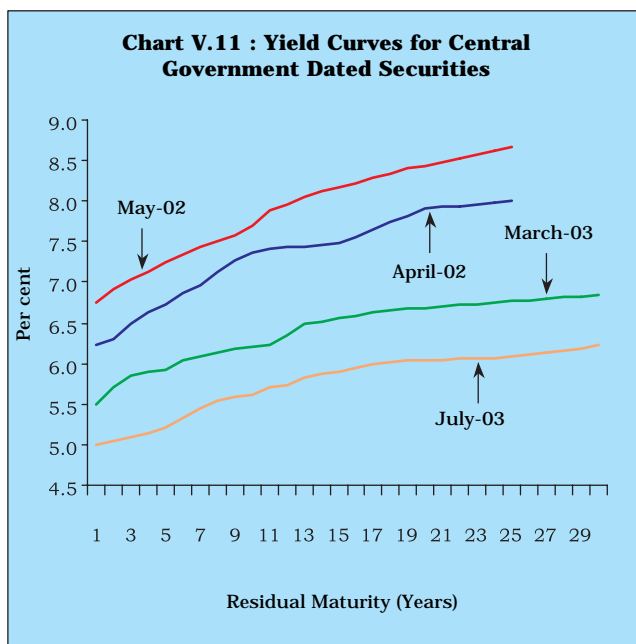
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2. Pattanaik, R.K., Muneesh Kapur and S.C. Dhal (2003), "Exchange Rate Policy and Management: The Indian Experience", *Economic and Political Weekly*, Vol. XXXVIII, No. 22, May 31-June 6.

5.31 Reflecting the excess supply condition in the spot exchange market, the average one-month and three-month forward premia declined by 102 basis points and 95 basis points to 2.79 per cent and 2.65 per cent, respectively, during April-July 2003.

**GOVERNMENT SECURITIES MARKET**

5.32 Yields declined in the secondary segment of government securities market during 2002-03 for the third year in succession reflecting ample liquidity and persistent expectations of interest rate cuts. Yields across residual maturity exceeding 14 years fell sharply relative to the benchmark 10-year security, flattening the yield curve (Chart V.11). The aggregate volume of transactions in Central and State Government dated securities and Treasury Bills (outright as well as repos) rose during the year, although the share of outright transactions decreased (Appendix Table V.6).



5.33 The easing of liquidity conditions at the beginning of 2002-03 and reductions in administered interest rates set a bullish tone to the government securities market during the first week of April 2002. OMO sales stabilised the market and sentiment turned cautious. Tensions at the border and tighter liquidity conditions hardened the yields on the government paper, pushing the 10-year yield to a high on May 21, 2002 (Chart V.12). The Reserve Bank's private placement assuaged market sentiment and drove down yields by end-May 2002.

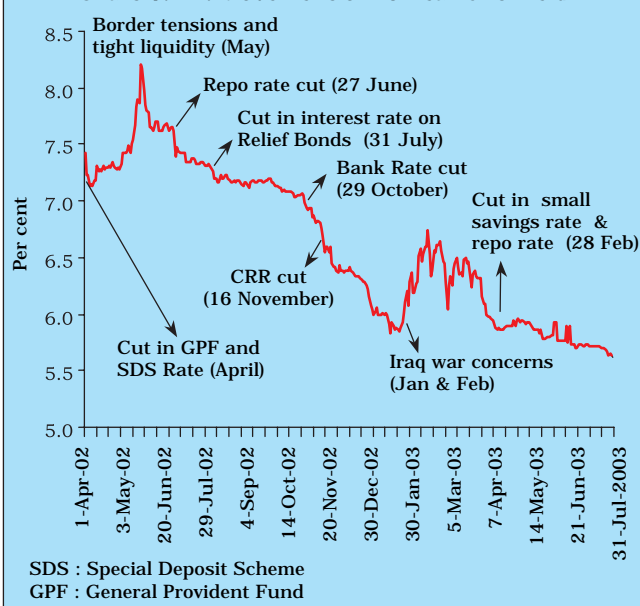
5.34 The repo rate cut on June 27, 2002 spurred a rally in the gilt market. Moreover, reduction in administered interest rates and anticipations of further reductions in U.S. interest rates resulted in easing the liquidity situation which exerted a downward pressure on yields. The lowering of CRR and the Bank Rate in the Mid-Term Review of Monetary and Credit Policy of 2002-03 and a cut in the Fed Funds target rate helped sustain the rally in November 2002. After the benchmark 10-year yield breached the Bank Rate on December 27, 2002, the gilt market experienced a sharp rally which culminated in 10-year yield reaching the year's low on January 22, 2003. OMO sales and apprehensions of military action in the Middle East reversed trends in yields in the last week of January 2003. Reduction in the small saving rates announced in the Union Budget 2003-04, followed by a repo rate cut regenerated a rally in government paper. The rally was, however, short-lived and turnovers fell in March

2003 due to inflation concerns and ongoing military action in Iraq. Gilt prices recovered towards the end of March as the Iraq war abated.

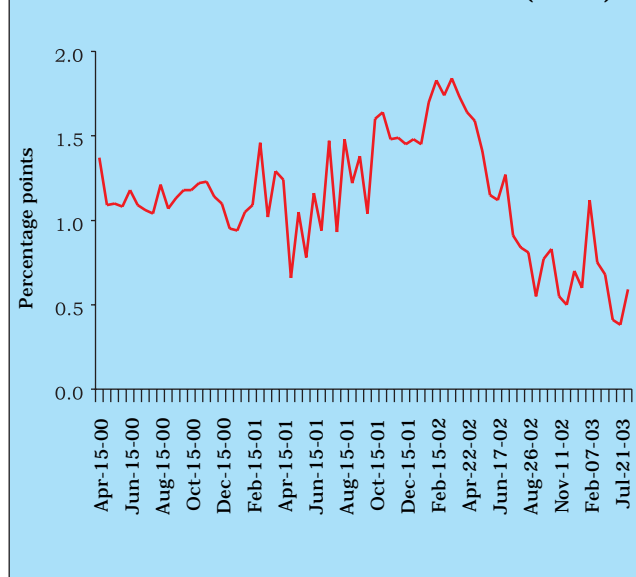
5.35 The decline in yields in the 2 to 5 year segment averaged around 60 basis points while in the 6 to 10 year and 11 to 20 year tenors the fall in yields was of the order of 102 and 115 basis points, respectively, on account of active trading interest at the long end in a period of low interest rates. On the other hand, the relative stability of the overnight call rates checked similar reductions in the yields of government securities of the shorter tenors. This resulted in a flattening of the yield curve during the year. The spread between AAA-rated corporate bonds and government securities narrowed during 2002-03 (Chart V.13).

5.36 Ample liquidity conditions and declining inflation generated a rally in gilt prices, especially in the short (below five years) maturity segment, in April 2003. The yield curve steepened immediately after the announcement of the Monetary and Credit Policy with surplus liquidity drawing down short-term yields. The yield curve, however, flattened during the last three weeks of May 2003 reflecting lowering of inflation expectations. The yields continued to fall in June 2003 on the back of persistent surplus liquidity, monetary easing in US and other developed countries and fall in inflation rate. The 10-year government yield fell by around 67 basis points during 2003-04 (up to August 16) to 5.54 per cent.

**Chart V.12 : Movement of 10-Year Gilt Yield**



**Chart V.13 : Spread Between AAA-rated Corporate Bond and Yields on Government Securities (5-Year)**



## CREDIT MARKETS

5.37 Easy liquidity conditions and monetary policy impulses for softening induced a reduction in deposit rates across all maturities (Table 5.5). Comparable reductions were, however, not fully reflected in the prime lending rates (PLRs). Sub-PLR lending of the banking system (excluding exports, the bulk of which is at sub-PLR rates) constituted over one-third of total lending by December 2002. As many as 40 banks comprising 18 public sector banks (PSBs), 6 foreign banks and 16 private banks reduced their PLRs after

holders expect nominal rates which are reasonably in excess of inflation. Secondly, offering fixed deposit rates is the traditional practice. Thirdly, non-interest operating expenses as well as the carrying costs of non-performing assets (NPAs) push up the lending rates. Fourthly, the persistent and large volume of market borrowing requirements of the Government gives an upward bias to the interest rate structure. In the recent years, there has, however, been considerable progress in relaxing these constraints. Inflation rates have moderated, interest cost of government borrowings have come down and banks are being encouraged to

Table 5.5 : Movements in Deposit and Lending Rates

(Per cent)

Interest Rates	July 2003	March 2003	December 2002	June 2002	September 2002	March 2002
1	2	3	4	5	6	7
<b>1. Domestic Deposit Rates</b>						
Public Sector Banks						
a) Up to 1 year	3.75-5.75	4.00-6.00	4.25-6.25	4.25-6.75	4.25-6.75	4.25 – 7.50
b) 1 year up to 3 years	5.00-6.25	5.25-6.75	6.00-7.00	7.00-8.00	6.50-7.75	7.25 – 8.50
c) Over 3 years	5.25-6.50	5.50-7.00	6.50-7.25	7.50-8.25	7.00-8.25	8.00 – 8.75
Private Sector Banks						
a) Up to 1 year	3.00-7.00	3.50-7.50	3.50-8.00	4.00-8.75	4.00-8.75	5.00 – 9.00
b) 1 year up to 3 years	5.50-7.50	6.00-8.00	6.50-8.25	7.25-9.50	7.25-9.50	8.00 – 9.50
c) Over 3 years	5.75-8.00	6.00-8.00	6.50-8.50	8.00-10.0	7.50-9.50	8.25 – 10.0
Foreign Banks						
a) Up to 1 year	3.00-7.75	3.00-7.75	3.25-7.75	4.25-9.75	4.00-9.75	4.25 – 9.75
b) 1 year up to 3 years	3.50-8.00	4.15-8.00	4.50-8.00	6.25-10.0	5.50-10.0	6.25 – 10.0
c) Over 3 years	4.50-8.50	5.00-9.00	4.75-8.50	6.25-10.0	5.50-10.0	6.25 – 10.0
<b>2. Prime Lending Rates</b>						
Public Sector Banks	9.00-12.25	9.00-12.25	9.00-12.50	10.00-12.50	10.00-12.50	10.00–12.50
Private Sector Banks	8.00-15.50	7.00-15.50	9.00-15.50	10.00-15.50	9.50-15.50	10.00–15.50
Foreign Banks	5.45-17.50	6.75-17.50	6.50-17.50	7.90-17.50	7.40-17.50	9.00 –17.50

the announcement of the mid-term Review of Monetary and Credit Policy in October 2002. The effective lending rates of commercial banks remained high due to wide spreads over the PLR which remained unchanged over 2002-03. The interest rate on home loans came down substantially over the year due to policy initiatives to boost the housing finance market.

5.38 Four factors are generally attributed to the rigidity of bank lending rates in India. First, deposit

offer floating interest rates on deposits. Furthermore, recent reductions in deposit rates and administered interest rates on small savings have created the environment for commensurate lowering of lending rates. A key issue in this context is locating the appropriate level of the real lending rate. There is some criticism, particularly in industry circles, that bank lending rates remain high. On the other hand, there is the apprehension that too low real lending rates may push the economy into a deflationary gap (Box V.3).

## Box V.3

## Where are the Real Lending Rates?

The real interest rate reflects forces of thrift as well as productivity. It is unobservable but can be measured by the nominal interest rate on saving adjusted for the expected rate of inflation. In a frictionless, perfect-information world no difference exists between the real borrowing and lending rates. In reality, however, bank intermediation drives a wedge between them. Since the

real lending rate embodies the true cost of funds for investors in an economy, two questions arise. First, is the real lending rate consistent with the growth rate of the economy? Second, given the structural rigidities, is the wedge between the bank deposit rate and bank lending rate reasonable? These issues become crucial for

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assessing the investment climate and for gauging the efficacy of the monetary policy transmission mechanism.

In the literature, the determinants of the long run real interest rate vary across growth models. In neoclassical growth models with exogenous saving, the marginal productivity of capital determines the real interest rate. On the other hand, in a Ramsay-type model with endogenous saving, the effective rate of time preference determines allocation of saving and investment and therefore, the real interest rate. In the overlapping generation models, lifetime saving could facilitate build up of assets to allow for consumption smoothing, which could explain the inter-temporal path of the real interest rate. The debate, however, is far from settled. In real life, the short-term nominal interest rate is under the direct control of monetary policy authorities. Additional factors such as maturity period, arbitrage opportunities, taxation, special features of the contract such as call options and risk characteristics, and uncertainties on account of information asymmetry determine the long-term interest rates.

Globally, the 1980s was a period of high nominal interest rates which spilled over into the 1990s. Since the second half of the 1990s there has been a generalised decline in interest rates in an environment of low inflation and weakening real sector activity. Developments in India have mirrored international trends. This has generated intense interest into where is the real lending rate and where it is headed. Industry circles typically complain about high real interest rates. Their view of the real interest rate is the bank prime lending rate adjusted for *ex post* or past inflation. On the other hand savers argue that the real interest rate is too low by adjusting the deposit rate for inflation on the same basis.

Three stylised facts stand out in respect of the movement of interest rates in India in recent years. First, the generalised decline in inflation since the second half of the 1990s has been reflected in a downward trend in nominal interest rates. Secondly, the fall in nominal interest rates of banks has been lower than the decline in the rate of inflation so that real interest rates may not have fallen in tandem with nominal rates. Thus, despite the fall in deposit rates, depositors have received positive real interest rates of close to 2 per cent in the second half of the 1990s, which is much higher than the real return on deposits during the first half of the 1990s. Finally, it is estimated that the

average lending rate of scheduled commercial banks has declined from a peak of about 17 per cent in 1995-96 to around 14 per cent by March 2002.

An analysis of the costs of bank lending shows that structural rigidities of the system impose several costs on banks over and above the cost of funds and inflation. Non-performing assets impose a cost on the banking sector in that the greater are the non-performing assets of a bank, the higher must be the margins which its performing assets have to earn for the bank to break even. Cash reserve requirements involve an implicit cost as a portion of these assets are not remunerated at all and the rest earn interest at the Bank Rate which is typically lower than the prime lending rate. A preliminary analysis to assess the level of real lending rate was conducted on data for March 2002. For the purpose of this exercise, the inflation expectations was taken to be the projected inflation in the Monetary and Credit Policy Statement for 2002-03 in April 2002, *i.e.*, four per cent. Accordingly, the real lending rate works out to 10 per cent - average lending rate of 14 per cent, adjusted for inflation expectations. The derived real lending rate needs to be adjusted for the wedges in the form of the CRR pre-emption as well as carrying costs of NPAs, estimated at about one per cent each. Furthermore, implicit in the real lending rate is a risk premium, which can be proxied by the spread of the discount rate on commercial paper over the yields of 91-day Treasury Bills estimated at around two per cent. Thus, the real lending rate adjusted for these "mark ups" over fund costs is closely aligned with the trend real growth rate of the economy. With lower fund costs, reductions in the CRR, lower NPAs and improvements in risk perceptions during 2002-03, banks have room for undertaking more aggressive reductions in average lending rate so that the real lending rate remains in alignment with the trend GDP growth rate. With the CRR set on a declining trajectory, the key pre-requisites for a durable reduction in the bank lending rates in India are better management of NPAs and reduction in any unreasonable wedge between the costs and returns.

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### Mobilisation of Resources by Non-Bank Financial Sector

#### Financial Institutions

5.39 Select all-India financial institutions (FIs) have been permitted by the Reserve Bank to raise resources by way of term money borrowings, issue of CDs, CPs, acceptance of term deposits and inter-corporate deposits (ICDs). The aggregate limits of FIs for raising of resources declined essentially on

account of mergers and a sharp reduction in net owned funds of the IFCI during the course of 2002-03. As a result, the outstanding aggregate amount of resources raised by the FIs (IDBI, IFCI Ltd., EXIM Bank, SIDBI, IIBI Ltd., TFCI Ltd., NABARD, IDFC Ltd. and NHB Ltd.) by way of short-term money market instruments declined during the year. On an average, ICDs continued to remain the preferred instruments, followed by term deposits, CPs, CDs and term money borrowings.

**Table 5.6 : Resources Raised by way of Bonds/Debentures\* by Select all-India Financial Institutions (Provisional)**

(Amount in Rupees crore)

	Resources Raised during		Total Borrowings Outstanding at end		Weighted average Cost of Funds (%)		Weighted average Maturity (years)	
	2002-03	2001-02	March 2003	March 2002	2002-03	2001-02	2002-03	2001-02
1	2	3	4	5	6	7	8	9
IDBI	5,009	4,213	45,280	45,464	8.4	10.3	2.8	4.3
IFCI	267	651	20,046	19,789	6.8	11.1	5.1	8.7
IIBI	150	551	1,468	1,807	12.8	12.9	7.0	6.4
Exim Bank	2,505	625	5,424	3,067	8.9	10.8	6.1	6.4
NABARD	2,988	2,549	8,703	6,078	6.1	8.0	3.2	2.6
NHB	1,876	238	4,675	3,003	6.4	8.7	4.0	7.4
SIDBI	961	1,224	2,498	3,020	6.6	7.5	2.3	1.0
TFCI	93	48	632	689	10.1	10.5	8.5	7.0
IDFC	400	250	1,400	1,000	7.6	9.0	5.6	5.0
<b>Total</b>	<b>14,249</b>	<b>10,349</b>	<b>90,126</b>	<b>83,917</b>				

\* Includes only rupee resources and does not include foreign currency borrowings.

Source : As furnished by the respective financial institution.

5.40 The interest rate offered on term money borrowings by FIs reflected the easy liquidity conditions and declined sharply towards the end of the year. Interest rates on CDs issued by the FIs and LCDs followed a similar pattern. Term deposit rates remained range bound over the year, 2002-03.

5.41 Total resource mobilised by way of issue of rupee bonds/ debentures (including private placement and public issue) by select all-India FIs rose significantly during 2002-03 as they took advantage of falling interest rates to retire their old high cost debt. The weighted average maturity of instruments across these FIs varied between 2.3 years and 8.5 years. The average interest rates on resources mobilised by way of rupee bonds/debentures by these FIs was in the range of 6.1 per cent per annum and 12.8 per cent per annum (Table 5.6).

#### Non-Banking Financial Companies

5.42 The slowdown in the activities of the non-banking financial companies (NBFCs) continued. Public deposits held by NBFCs as a proportion to aggregate deposits of commercial banks declined sharply from 2.2 per cent in December 2000 to 1.5 per cent in March 2003 reflecting investors' aversion towards riskier saving options. The interest rate ranged between 10 per cent to 12 per cent for 35.11 per cent of the deposits, and 12 to 14 per cent for 38.71 per cent of the deposits mobilised by NBFCs (excluding residuary non-banking companies) as at end-March 2002. According to the information pertaining to large NBFCs (including RNBCs) with a deposit base of Rs.20 crore and above, the aggregate public deposits

amounted to Rs.17,615 crore for 25 companies as at March 2003 as compared with Rs.17,842 crore for 42 companies as at end-March 2002.

#### EQUITY AND DEBT MARKETS

5.43 The capital market remained depressed during 2002-03. The primary market was subdued mainly due to lack of demand for funds by the corporates. Positive investor response to quality issues in the primary market, however, points to selectivity breaking through a generalised risk aversion. The secondary market was weighed down by a host of adverse domestic developments as well as the sell-offs in international equity markets in the first half of the year. Notwithstanding fall in prices of blue chip scrips, mid-cap scrips, PSU scrips and bank scrips experienced increased buying interest.

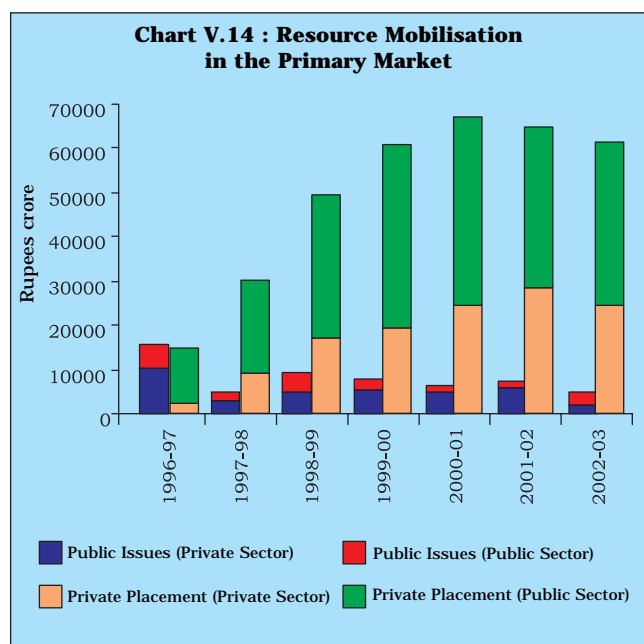
#### Primary Market

5.44 The primary capital market, which comprises the public issues and the private placement market, is a source of funds (both equity and debt) for the corporates and an avenue for investment of surplus funds by the investors. During the last few years, resource mobilisation from the public issue market has been declining. Paucity of new issues entering the market and fading investor interest continued to characterise the market during 2002-03 (Chart V.14 and Table 5.7).

5.45 The bulk of resource mobilisation from the public issues market in 2002-03 was by banks and FIs. Prompted by the positive secondary market

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**FINANCIAL MARKETS**



response to banking sector stocks, three public sector banks floated equity issues. In addition, there were five bond issues by the IDBI and three bond issues by the ICICI Bank. Resources mobilised by non-Government non-financial public limited companies declined sharply (Appendix Table V.10 and Chart V.15).

5.46 In sharp contrast to the public issues market, the private placement market has emerged as an alternative and more convenient source of funds for the corporate sector, even though the growth of this market has slowed down during the last few years. The decline in resource mobilisation during 2002-03, however, is partly attributable to the ICICI-ICICI Bank merger, since the erstwhile ICICI was a large mobiliser of funds from the private placement market. The non-financial sector mobilised a larger part of resources from the private placement market. While state level undertakings and banks continued to raise substantial resources from the private placement market, the share of AIFIs declined.

**Table 5.7 : Mobilisation of Resources from the Primary Market\***

(Amount in Rupees crore)

Item	2002-03 P		2001-02	
	No. of Issues	Amount	No. of Issues	Amount
1	2	3	4	5
<b>A. Prospectus and Rights Issues</b>				
<b>1. Private Sector (a+b)</b>	<b>9</b>	<b>1,878</b>	<b>19</b>	<b>5,692</b>
		(-67.0)		(16.4)
a) Financial	4	1,236	10	4,091
b) Non-financial	5	642	9	1,601
<b>2. Public Sector (a+b+c)</b>	<b>8</b>	<b>2,989</b>	<b>5</b>	<b>1,420</b>
		(110.5)		(-3.6)
a) Public Sector Undertakings	–	–	–	–
b) Government Companies	–	–	1	350
c) Banks/Financial Institutions	8	2,989	4	1,070
<b>3. Sub Total (1+2)</b>	<b>17</b>	<b>4,867</b>	<b>24</b>	<b>7,112</b>
		(-31.6)		(11.8)
<b>B. Private Placement+</b>				
<b>1. Private Sector (a+b)</b>	<b>904</b>	<b>24,598</b>	<b>672</b>	<b>28,620</b>
		(-14.1)		(27.1)
a) Financial	364	10,102	363	16,019
b) Non-financial	540	14,496	309	12,601
<b>2. Public Sector (a+b)</b>	<b>243</b>	<b>37,148</b>	<b>286</b>	<b>36,256</b>
		(2.5)		(-20.5)
a) Financial	149	18,616	167	17,358
b) Non-financial	94	18,532	119	18,898
<b>3. Sub Total (1+2)</b>	<b>1,147</b>	<b>61,746</b>	<b>958</b>	<b>64,876</b>
		(-4.8)		(-4.8)
<b>C. Total (A+B)</b>	<b>1,164</b>	<b>66,613</b>	<b>982</b>	<b>71,988</b>
		(-7.5)		(-3.4)
<i>Memo Item :</i>				
<b>Euro Issues</b>	<b>11</b>	<b>3,426</b>	<b>5</b>	<b>2,384</b>
		(43.7)		(-43.2)

\* Including both debt and equity.

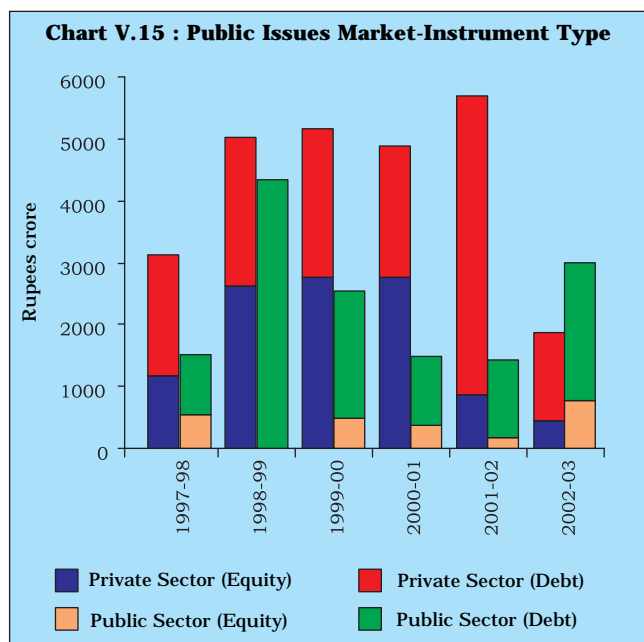
P : Provisional.

– Nil/Negligible.

+ Estimates based on information gathered from arrangers, FIs and newspaper reports.

**Note :** Parenthetic figures represent percentage variations over the previous year.





5.47 The Euro issues market, which comprises the Foreign Currency Convertible Bonds, Global Depository Receipts and American Depository Receipts, witnessed increased activity during 2002-03.

5.48 The deceleration in activity in the primary capital market, especially in the public issues

market could be attributed to factors operating both on demand and supply. The tightening of disclosure standards and entry point norms by the SEBI has meant that only companies with established track record are able to access the market. This has helped improve the quality of paper and checked fly-by-night operators. Nevertheless, some issues have been highly oversubscribed even in the depressed market conditions, suggesting that investor interest is marked by selectivity rather than general market aversion. During 2002-03, most of the issues were oversubscribed and there was not even a single issue which was not fully subscribed. The slackening of investment by the private corporate sector since the second half of 1990s has affected the demand for funds. The demand for funds by corporates is contingent on several factors impinging on the overall macroeconomic environment as well as sector-specific/firm-specific factors that shape the investment climate (Box V.4). During April-June 2003, the primary market witnessed further slowdown as there was no issue in the public issues market as compared with three issues aggregating Rs.613 crore during the corresponding period of the previous year. There was one issue of Rs.224 crore during April-June 2003 in the Euro issues market.

#### Box V.4

##### Determinants of Investment Climate

The investment climate influences both the demand and supply of funds in the financial markets. A favourable climate for private investment is determined by general economic activity, the soundness of the financial system, asset prices, credit worthiness, business expectations and risk appetite. In the context of globalisation and the emergence of foreign direct investment (FDI) as a dominant element in international capital flows, improving conditions for investment has become the central concern of policy makers among countries competing for capital. Here, the investment climate includes a host of institutional factors and policies which affect the returns that investors expect and the uncertainties associated with these returns. Fiscal, monetary and exchange rate policies, political stability, the country's regulatory framework, *i.e.*, issues of entry and exit, labour laws, taxation rules, and the quality and quantity of the physical and financial infrastructure are crucial elements in determining the investment climate of a country.

The most crucial aspect of private investment, *i.e.*, investment in fixed assets and equipments for capacity enhancement, has been the subject of considerable theoretical and empirical attention. The determinants of business fixed investment are typically identified as

output, sales or profits and the cost of capital. In the Indian context, some empirical estimates indicate that the cost of capital unambiguously affects investment. Availability of bank credit affects smaller unincorporated firms more than bigger and established firms. Assessment of investment climate at an international level has gathered interest from the point of view of comparative assessment of countries and competitive performance. Several agencies compile country rankings and benchmarks on the basis of indicators that determine investment climate. Some of the available indicators are country credit ratings, country risk rankings, business environment survey, governance indicators and indices of competitiveness, globalisation, FDI confidence, human development, market access and economic freedom.

In India, the pace of private investment has lost momentum since the second half of the 1990s on account of several factors including lack of adequate reforms and public investment in infrastructure as well as uncertainties in the domestic investment climate. The dampening of the investment climate is also reflected in a drastic fall in the number of companies accessing the primary capital market, and a continuous decline in sanctions and

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disbursements by financial institutions (Appendix Table V.9). The investment climate in India is also being increasingly influenced by global developments such as the global downturn in investment demand and the large declines in equity markets. Efforts to brighten the investment climate will involve a strategic approach to investment and competitiveness.

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2. Reserve Bank of India (2003), *Report on Currency and Finance, 2001-02*, Mumbai, March.
3. World Bank (2002), *Improving the Investment Climate in India*.

**Mutual Funds**

5.49 Under the overall depressed conditions in the capital market, resource mobilisation by mutual funds during 2002-03 declined mainly due to net outflow of funds from the UTI, which was restructured during the year (Table 5.8).

**Table 5.8 : Net Resource Mobilisation by Mutual Funds**

(Amount in Rupees crore)

Item	2002-03		2001-02	
	No. of Schemes	Amount	No. of Schemes	Amount
1	2	3	4	5
1. Unit Trust of India	59	-9,434	72	-7,284
2. Public Sector Mutual Funds	74	1,988	69	1,474
3. Private Sector Mutual Funds	337	12,026	266	12,947
<b>Total (1 to 3)</b>	<b>470</b>	<b>4,580</b>	<b>407</b>	<b>7,137</b>

**Notes:** 1. Data are provisional.  
 2. For UTI, the figures are net sales (with premium), including re-investment sales, and for other mutual funds, figures represent net sales under all schemes.  
 3. Data exclude amounts mobilised by off-shore funds and through roll-over schemes.

5.50 The subdued conditions in the secondary equity market and buoyancy in the debt market enabled debt schemes to attract funds in 2002-03 (Table 5.9). Of the total asset under management of Rs.1,09,299 crore at end-March 2003 (as against Rs.1,00,954 crore at end-March 2002), net assets under debt schemes accounted for 74.0 per cent, followed by nearly equiproportional shares of equity and balanced schemes at 13.0 per cent. The resource mobilisation by mutual funds rose sharply during April-June 2003 to Rs.19,432 crore as compared with an

**Table 5.9 : Scheme-wise Resource Mobilisation by Mutual Funds**

(Rupees crore)

Year	Equity-Oriented	Debt-Oriented	Balanced	Total
1	2	3	4	5
2001-02	-534	13,064	-5,354	7,175
2002-03	43	5,781	-1,628	4,196

Source : SEBI

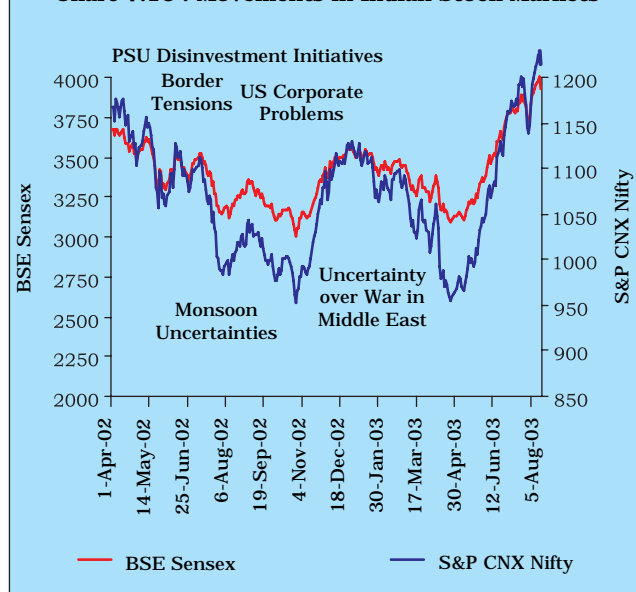
outflow of Rs.832 crore during the corresponding period of the previous year.

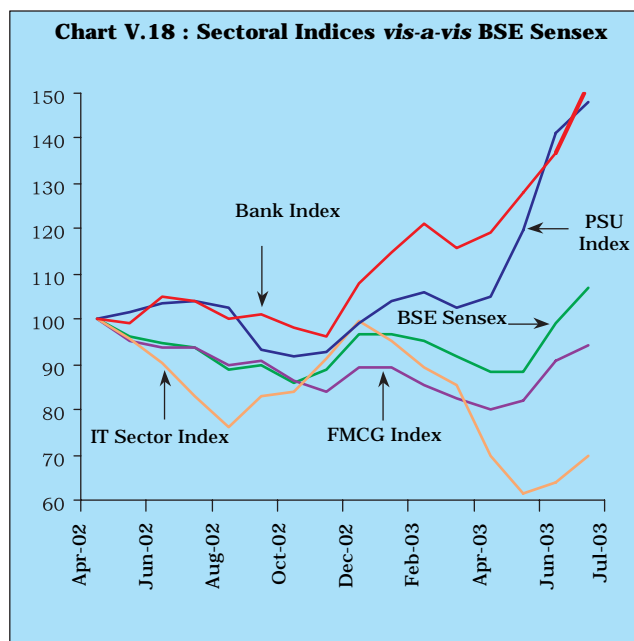
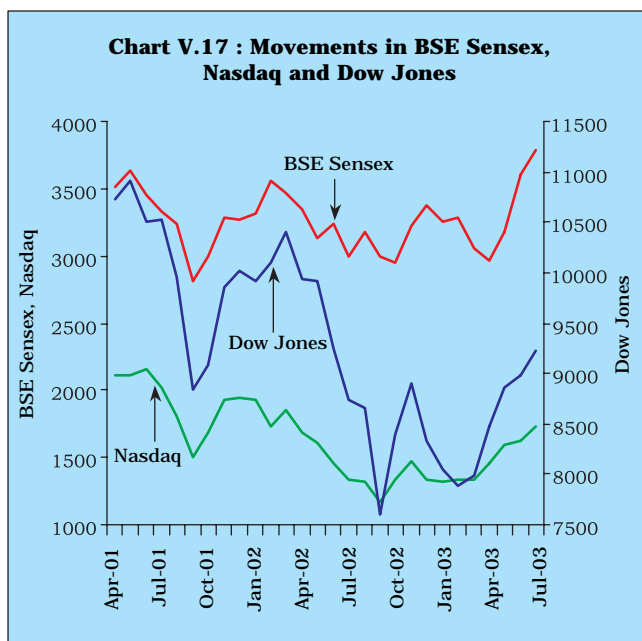
**Secondary Market**

5.51 The downtrend in the domestic stock markets, which set in during March 2001, persisted throughout 2002-03 due to a combination of adverse domestic and international developments such as border tensions, unsatisfactory monsoons, lower than expected quarterly results of some major corporates, continuing uncertainties regarding the PSU disinvestment programme, tensions in the Middle East and the rise in international oil prices (Chart V.16 and Appendix Table V.11).

5.52 Market sentiment was also affected by the sharp decline in the major international markets in the first half of the year. The BSE Sensex declined by 12.1 per cent on a point-to-point basis over the year which was, however, much lower in comparison with the fall in major international market indices like the Nasdaq Composite Index (by 27.3 per cent) and the Dow Jones Industrial Average (by 23.2 per cent) (Chart V.17).

**Chart V.16 : Movements in Indian Stock Markets**





5.53 The stock market was affected significantly by some sector specific factors at different points of time during the year (Chart V.18). In the first half of the year, the BSE Sensex was pulled down by the Fast Moving Consumer Goods (FMCG) sector, which remained subdued on account of drought fears and the depressed Information Technology (IT) sector, which posted lower than expected quarterly results. The BSE Sensex recovered to some extent during

November and December 2002 as a result of the rally in PSU stocks on expectations of disinvestment initiatives. Bank scrips, in particular, witnessed a sharp increase almost throughout 2002-03, with improvement in profitability and relaxations on foreign direct investment (FDI) in private sector banks (Box V.5). The BSE Sensex was pulled down by the subdued FMCG and IT sector again in the last quarter of 2002-03.

### Box V.5

#### Banking Reforms and the Behavior of Bank Stocks

In contrast to the generally sluggish conditions characterising the stock markets in India, bank scrips have shown a sharp upward movement in prices. On a point-to-point basis, the S&P CNX Bank Index registered an increase of 18.1 per cent during 2002-03, while the BSE Sensex and S&P CNX Nifty declined by 12.1 per cent and 13.4 per cent, respectively. In the current financial year up to August 12, 2003, the S&P CNX Bank Index increased by 46.5 per cent, while S&P CNX Nifty and BSE Sensex registered gains of 26.2 per cent and 27.6 per cent, respectively.

At a disaggregated level, the price gains in respect of many bank scrips some of which are not included in the S&P CNX Bank Index have been way ahead of the market average and have outperformed several blue chips. The major price gainers during 2002-03 were Bank of Baroda (80.1 per cent), Indian Overseas Bank (78.0 per cent), Vijaya Bank (76.9 per cent), Dena Bank (76.1 per cent) and Oriental Bank of Commerce (62.5 per cent). The market preference for banking sector scrips is also reflected in the sharp rise in trading volumes. In

terms of average daily turnover, the most active scrips during 2002-03 were State Bank of India, Syndicate Bank, ICICI Bank, Bank of Baroda and Bank of India.

The progress of banking sector reforms has been a major factor in enhancing the attractiveness of banking sector stocks. A significant factor leading to heightened activity in bank scrips was the relaxation in the foreign direct investment (FDI) norms for private sector banks in May 2001. This made the old private sector banks particularly attractive because of their undervalued price levels. Improved financial performance drawing from huge trading profits was another contributing factor. Some banks attracted buying interest in anticipation of a takeover or merger in future. The market expectations regarding disinvestments of public sector banks also fuelled some speculative activity.

The prices of the banking sector stocks could be influenced by bank-specific factors and/or general factors. The 'beta' (which measures the riskiness of a

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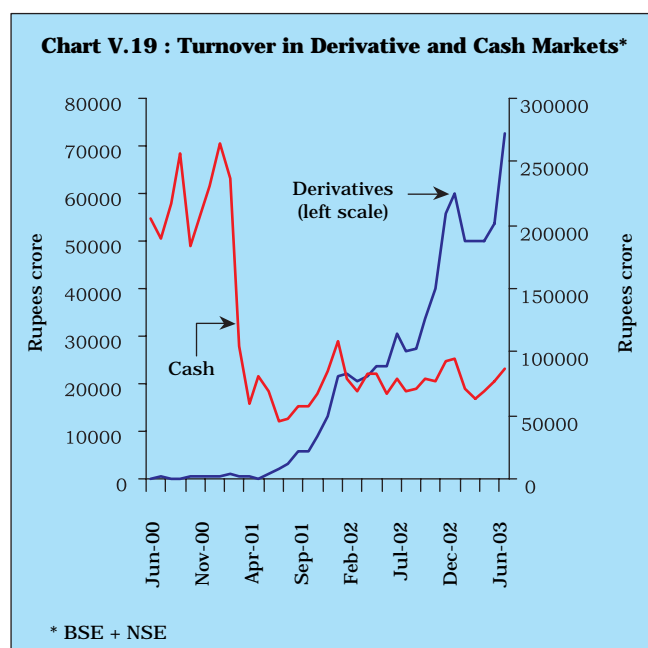
stock relative to the market) and synchronicity tests (which indicate the fraction of stocks that move in the same direction) suggest that risk-return perception for banks are determined to a large extent by the industry-wide factors rather than by bank-specific factors. The beta values were found to be varying widely among the

individual bank scrips and close to unity only in case of a few bank scrips. On an average, the beta of bank scrips was around 0.7 as reflected in the beta of S&P CNX Bank Index. The synchronicity tests based on daily returns data for the 25 bank stocks showed that, on an average, about 70 per cent of bank scrips move in the same direction.

5.54 Investments in various instruments of the stock market are guided by risk-return perceptions. In the recent period, the rate of interest available on various fixed income instruments has declined sharply following the overall softening of interest rates. Although the stock markets experienced a sharp reduction in volatility during the last three years, returns from the stock markets declined. As a result of the decline in prices, the P/E ratio and overall market capitalisation also declined. There was, however, improvement in the turnover ratio reflecting increased liquidity (Table 5.10).

5.55 Increased liquidity has also been noticed in the derivatives market. The growth of derivatives market, especially single stock futures, suggests growing popularity of the segment (Chart V.19 and Appendix Table V.12).

5.56 In the absence of a significant presence of retail investors, the stock markets in India are increasingly influenced by institutional investors. Investments by mutual funds declined as they continued to shift from equities to debt in search of better returns. Investments by FIIs also slowed down sharply during 2002-03 (Table 5.11). Net investment by FIIs turned negative during April-June 2002, driving



down the stock market. As net investment by FIIs turned positive subsequently, the market recovered and moved in a narrow range. Significantly, FIIs made investments in the debt instruments of Rs.4,151 crore

Table 5.10 : The Indian Equity Markets – Key Indicators

Indicator	BSE		NSE	
	2002-03	2001-02	2002-03	2001-02
1	2	3	4	5
1. BSE Sensex/S&P CNX Nifty				
(i) Average	3206	3332	1037	1077
(ii) End of the year	3049	3469	978	1130
2. Co-efficient of Variation (%)	4.9	7.2	5.2	6.8
3. Price -Earning Ratio@	14.5	16.6	15.2	15.7
4. Price-Book Value Ratio@	2.2	2.4	2.6	2.6
5. Yield @ (per cent per annum)	2.2	2.0	2.1	1.2
6. Listed Companies #	5,650	5,782	673	793
7. Turnover (Rupees crore)	3,14,073	3,07,292	6,17,989	5,13,167
8. Market Capitalisation # (Rupees crore)	5,72,197	6,12,224	5,37,133	6,36,861
9. Turnover Ratio	0.5	0.5	1.2	0.8

@ Based on scrips included in the BSE Sensex and the S&P CNX Nifty and are averages for the year.

# As at end-March.

Source : The Stock Exchange, Mumbai and the National Stock Exchange of India Limited.

**Table 5.11 : Net Investments by Institutional Investors**

(Rupees crore)

Year	FIIs		Mutual Funds	
	Equity	Debt	Equity	Debt
1	2	3	4	5
2000-01	10,124	-46	-2,767	5,023
2001-02	8,067	685	-3,796	10,959
2002-03	2,528	162	-2,067	12,604
<b>Total</b>	<b>20,719</b>	<b>801</b>	<b>-8,630</b>	<b>28,586</b>

Source : SEBI

during November 2002-July 2003. It was, however, not at the cost of investment in the equity market (Rs.9,288 crore). Investments by FIIs are influenced both by global factors such as interest rate changes, inflationary expectations, *etc.*, as also, growth prospects and performance of the corporate sector (Box V.6).

5.57 Several steps have been taken in the equity markets in recent years to enhance investor protection, and the safety and integrity of the market (Box V.7).

**Box V.6**

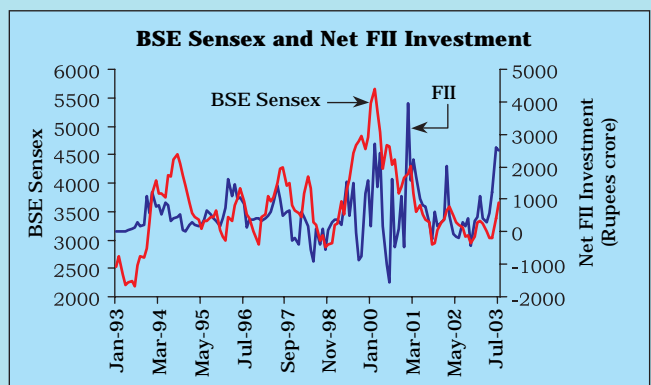
**Determinants of Portfolio Flows**

The globalisation of the world economy during the 1990s resulted in a substantial increase in portfolio flows from industrialised countries to emerging market economies. Private portfolio flows to emerging markets rose steadily from US \$ 56.1 billion during 1992 to US \$ 94.6 billion during 1996 but thereafter fell to US \$ 1.7 billion during 1998, driven by outflows from the five crisis-affected Asian countries of Indonesia, Korea, Malaysia, Philippines and Thailand. Portfolio flows recovered to around US \$ 41.4 billion in 1999. While there is little disagreement about the benefits of portfolio flows as a source of funds, their "hot money" character has often escalated the possibilities of contagion. This has sparked off a considerable interest in the determinants of capital flows.

Portfolio flows are, by and large, determined by the performance of stock markets of the host economy relative to that of the home economy. There is empirical evidence to suggest that equity flows would be "pulled" towards an economy with relatively higher returns. When the recipient economy is small, equity inflows could also be "pushed" in once stock returns in the rest of the world rise sufficiently to allow investors to take such risks. Official policies, especially in terms of capital controls, influence the scale of portfolio flows. The degree of cross-country portfolio diversification which the investors in the developed economy are willing to accept often depends on the "home bias" which is, however, gradually eroding with the increase in global financial integration and the degree of risk spreading enabled by such investments. For example, emerging equity markets were reported to be offering higher returns at more or less unchanged or reduced portfolio risks during 1988-94. During 1995-98, they yielded lower returns, without reducing portfolio risk. Other factors explaining portfolio flows include interest rate differentials, volatility in the stock markets, exchange rate fluctuations and measures of country risk. There are also feedback-trading effects in that gains (losses) in an economy tend to reinforce the next round of investment (disinvestment). Portfolio inflows are often persistent and besides, such flows to different countries in a particular

region often tend to be highly correlated. Stylised evidence suggests that the advantages of informed trading explains about three-fourth of the total persistence. Finally, portfolio flows to emerging market economies in the late 1990s were also driven by sector-specific factors such as the availability of technology scrips during the technology boom of the late 1990s. The evidence on determinants of portfolio flows continues to be mixed depending on model specifications. One set of results suggests that FII flows are, by and large, driven by stock market returns while other variables such as US and world returns and country risk returns are not very significant in explaining capital flows. Other findings indicate that portfolio flows are affected by a combination of domestic, regional and global variables including global interest rates, lagged returns in emerging markets, nominal depreciation expectations of the exchange rate and credit rating downgrades.

India opened its stock market to FIIs in September 1992. As at end-March 2002, about four-fifth of FII investment emanated from the USA, UK and Western Europe. FII flows were consistently positive for the first few years reflective of buoyant stock market conditions but turned negative in September 1997 for the first time at the time of the Asian crisis (Chart). Although there have been a



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few periods of net outflows during brief episodes of foreign exchange market volatility, they were quickly reversed once stability returned to the financial markets.

An analysis of the data reveals that FII flows and stock market performance in India are strongly correlated. Daily data for the period October 1999-January 2002 show that there is a bi-directional causality between FIIs' equity investments and changes in the BSE Sensex. This implies

5.58 The process of demutualisation and corporatisation of stock exchanges, which has already been initiated, is expected to improve investor confidence in the stock market (Box V.8).

5.59 Liquidity conditions in money, gilt and foreign exchange segments are expected to remain comfortable over 2003-04, with developments in the year so far providing early indications of market

that portfolio decisions made by FIIs influence and, in turn, are influenced by the market performance.

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2. Gordon, James and Poonam Gupta (2002), "Portfolio Flows into India: Do Domestic Fundamentals Matter?", Presentation at NCAER.

activity in the near term. In the money market segments, rates are expected to remain soft and clustered around the repo rate. The outlook for the Government securities market continues to be positive. The early signs suggest that the liquidity conditions are expected to remain adequate for supporting the government market borrowing programme as well as the off-take of credit for sustaining industrial recovery. The foreign exchange

**Box V.7**

**Risk Management in Stock Exchanges**

A proper risk management system for the stock exchanges is a necessary precondition for the integrity and safety of the market. The main elements of risk management in stock exchanges in India comprise capital adequacy, exposure limits, margin requirements, counter-party guarantee in the form of trade guarantee funds, price bands and a surveillance system. Capital adequacy refers to the requirement on the part of the trading members of stock exchanges to provide base capital in specified assets in a prescribed proportion. Exposure norms, either in the form of scrip-specific trading limits or a ceiling on the cumulative outstanding position, are linked to capital. Furthermore, scrip-specific and broker-specific margins are collected from the members in order to reduce the risk associated with market fluctuations. While the margin system has limited the members' ability to take highly leveraged positions, the system of circuit filters (price bands) in which the trading in a scrip is halted once it crosses a band, acts as a direct measure to curb volatility. Circuit filters were first introduced in the US in the wake of a sharp fall in share prices. Counter-party guarantees in the form of a trade/settlement guarantee fund to honour the pay-in liabilities by a member act as a risk insurance system in the case of default. Besides, a surveillance system has been instituted in major stock exchanges to ensure efficient functioning of the market.

Minimum capital requirements have been stipulated at broker and sub-broker level. At present, gross exposure limits, stipulated at 15 times the base minimum capital and additional capital, and intra-day trading limits at 33 $\frac{1}{3}$  times the base minimum capital and additional capital, are applicable. There are mainly three types of margins in operation, viz., a daily margin, mark-to-market margin and

volatility margin in order to curb excess volatility and deter the build up of excessive outstanding positions. Members are required to pay the excess of the mark-to-market margin over the daily margin only if the former exceeds the latter. Price bands were revised from time to time to provide exit and flexibility in trading. There is a price band of 20 per cent (either side) for scrips which are neither included in the BSE Sensex or S&P CNX Nifty, nor included in the list on which derivative products are allowed. To bring about a co-ordinated trading halt in all equity and equity derivative markets nationwide, the SEBI prescribed with effect from July 2, 2001, an index-based market-wide circuit breaker system, at three stages of the index movement either way at 10 per cent, 15 per cent and 20 per cent. All the scrips attract a 99 per cent Value-at-Risk (VaR)-based margin. Stock exchanges have Settlement Guarantee Funds/ Trade Guarantee Funds to face any exigencies that may arise. Major stock exchanges monitor the exposure and intra-day trading limits on a real time basis. A system of pre-set alerts has been introduced as part of the surveillance system. These risk containment measures have been able to enhance the safety of the market in times of extreme volatility, manage credit risk and ensure that settlements take place smoothly.

For safe and quick transfer of shares, all actively traded shares have been shifted to the dematerialised form, substantially reducing transaction costs and risks of bad delivery. Two depositories, viz., the National Securities Depositories Ltd. and the Central Depository Services Ltd. have established inter-connectivity between themselves and 10 stock exchanges accounting for 99 per cent of the turnover have established connectivity with either of the two depositories.

**Box V.8****Demutualisation of Stock Exchanges**

Stock exchanges were set up the world over as non-profit organisations owned by their member brokers. In the recent years, however, there has been an increasing trend towards alternative structures from the traditional co-operative or mutual models to corporate service provider models. Demutualisation involves separation of trading rights from ownership and management control. In most cases, this involves the conversion of an existing not-for-profit organisation into a for-profit organisation.

The basic rationale for demutualised stock exchanges is that exchanges owned by members often tend to work towards the interest of members alone, which could at times be detrimental to the rights of other stakeholders. The division of ownership between members and outsiders can lead to a balanced approach, remove conflicts of interest and create greater management accountability, transparency and market discipline. The exchanges increasingly need to invest in technology upgradation to face the competition from newly created technology-oriented market entities. Demutualised exchanges could be better equipped to face this challenge by raising the capital from the market. Furthermore, the forces of competition and globalisation have also created the need for strategic alliances and cross-holdings. The experience the world over shows that the broker-managed stock exchanges are relatively slow and reluctant to respond to changes.

In recent years, many stock exchanges such as Frankfurt, Stockholm, Amsterdam and Australia have demutualised. The Amsterdam and the Australia stock exchanges have additionally become publicly listed companies and the Deutsche Bourse in Frankfurt is considering this step. In Asia, the Stock Exchange of Singapore and Singapore Monetary Exchange (Simex) have been merged.

Demutualisation, however, raises some concerns. One of the major concerns is about the compatibility of the demutualised structure with the role of stock markets as self-regulators. In particular, it is argued that the conversion into for-profit organisation could adversely affect the support of funding for regulation. It is also argued that even demutualised exchanges may be reluctant to bring enforcement actions against holders of trading rights if they are also major stakeholders. It is often argued, therefore, that after demutualisation, the stock exchange should merely be a transaction clearing entity and not a self-regulatory organisation. The stock exchange as a company should not have special powers

over other companies whose shares are also listed and traded. Hence, in some countries, regulators are considering the possibility of taking away listing powers from such exchanges as a matter of fair play.

In India, stock exchanges have historically been set up as not-for-profit organisations, though the need for a demutualised structure of stock exchanges has also been recognised. The National Stock Exchange (NSE) and the Over-the-Counter Exchange of India (OTCEI) followed demutualised models from the beginning. The Union Finance Minister, in his Budget Speech for 2002-03, emphasised the need to separate trading, ownership and management in stock exchanges. A Group constituted by the SEBI under the chairmanship of Justice M.H. Kania examined the legal, financial and fiscal issues involved to corporatise and demutualise the stock exchanges. It recommended that the three stakeholders, viz., shareholders, brokers and the investing public through the regulatory body should be equally represented on the governing board of the demutualised stock exchange, with a ceiling of 5 per cent of the voting rights which can be exercised by a single entity or groups of related entities, irrespective of the size of ownership of the shares held. The Chairman of the board should not be a practicing broker. The Group suggested that the trading card system be replaced by the deposit system wherein the money deposited by a member to obtain trading rights only be considered as deposit with the stock exchange for trading purposes. Since the transfer of stock exchange assets and membership cards from the present legal structure into the new company (exchange) would attract one-time capital gains and other taxes, the Group suggested a one-time exemption from taxes for the newly demutualised stock exchanges. The Union Budget, 2003-04 announced exemption from payment of capital gains tax for exchanges on corporatisation. The Government has proposed necessary amendments to the Securities Contract (Regulation) Act, 1956 which are necessary to separate the ownership of these stock exchanges from their management in order to enhance investor confidence.

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market is reflecting conditions of excess supply which have dominated the first few months of the year. The behaviour of the exchange rate is likely to depend considerably on the movements of the US dollar vis-a-vis other major currencies. The capital market has been experiencing heightened activity recently. Current valuations are attractive and FIIs'

appetite for Indian paper is getting rekindled. The market is expected to further consolidate these gains in the near future. A sustained recovery in financial market activity is contingent upon the abiding strength of the macroeconomic fundamentals and a stronger and more durable recovery in international markets.