V. FINANCIAL MARKETS

Monetary transmission strengthened during Q4 of 2010-11 with interest rates firming up gradually across the spectrum as liquidity remained in deficit mode. The policy transmission to deposit and lending rates is visible in the current base rate regime. Asset prices, including property prices, generally remained range bound. Equity markets experienced orderly correction in Q4 of 2010-11. The rupee exhibited two-way movements against the US dollar without any intervention or active capital account management. Going forward, the financial markets need to brace up to the geopolitical risks in MENA, default risks in the Euro zone and movements in cross-border capital flows.

Global portfolio rebalancing to impact domestic financial markets

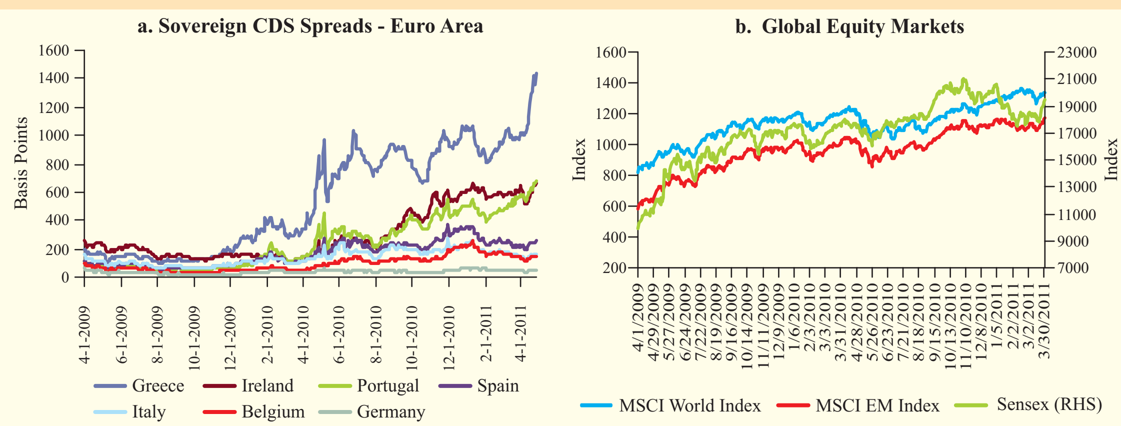
V.1 The year 2010-11 was marked by periods of volatility and tranquility in the Indian financial markets. With global uncertainties rising, volatility may aggravate further, partly from building up of speculative positions in global commodity markets. Portfolio choices are also governed by the geopolitical developments in the MENA region and availability of easy liquidity in certain advanced economies. An additional source of uncertainty for the global financial markets is the sovereign and banking sector default risks in parts of Europe (Chart V.1a) There could, however, be a rebalancing of investors' portfolio if economic recovery in major advanced economies gains traction and causes a quicker-than-anticipated withdrawal of monetary accommodation. With rise in global equity markets (Chart V.1b) there may be a shift in investors' preference away from the EME markets to those of the advanced economies, particularly the US.

V.2 While credit spreads shrank markedly during Q4 of 2010-11, bond yields in advanced economies firmed up reflecting the post-crisis rise in debt to GDP ratio as well as incipient signs of inflationary concerns. Apart from food prices, the rising expectations of increased crude oil prices following the geo-political risks in MENA raised inflationary expectations especially in EMEs. The initial reaction to the downside risks associated with the natural calamity hit Japanese economy has subsequently given rise to the expectations of boost in demand for its reconstruction.

Global uncertainties and anti-inflationary monetary policy stance impacting Indian markets, but orderly conditions prevail

V.3 Global uncertainties as well as domestic developments impacted Indian financial markets.

Chart V.1: Indicators of Global Financial Market Developments



The Indian markets, however, remained largely orderly, despite the challenges posed by persistent inflation and high current account deficit.

V.4 Call rate firmed up in step with the policy rates and remained above the upper bound of the LAF corridor for a major part of Q4 of 2010-11, due to frictions caused by skewed SLR holdings (Chart V.2a). While issuances and rates on certificates of deposits (CDs) continued to increase during the quarter reflecting banks' efforts to mobilise more funds, issuance of commercial paper (CP) moderated on account of the strong credit growth, even as the rates continued to be high reflecting general liquidity stress (Chart V.2b). The yield curve for government securities (G-sec) further flattened during Q4 in response to policy rate hike expectations and liquidity tightness.

V.5 The Indian rupee appreciated moderately against the US dollar. Stock markets remained volatile for the greater part of Q4, weighed by domestic and global concerns, but appreciated towards the close of the quarter on the back of strong foreign portfolio inflows. Returns in the Indian equity markets were relatively lower than most other EMEs (Table V.1). Prices in the housing market continued the rising trend during the third quarter of 2010-11.

Money market rates reflect liquidity conditions

V.6 The money market was generally orderly although liquidity conditions remained in deficit mode during the fourth quarter of 2010-11. Reflecting the high credit demand, high currency growth, and unspent surplus balance in the government account as also the hikes in policy rates by the Reserve Bank, the call rates mostly remained above the repo rate during Q4 (Chart V.2a, Table V.2). The rates in the collateralised segments also rose in line with the trend in the call money market.

V.7 Transaction volumes in the collateralised borrowing and lending obligation (CBLO) and market repo segments were higher during Q4 than Q3 of 2010-11 (Table V.3). The collateralised segment of the money market remained predominant, accounting for more than 80 per cent of the total volume of transactions during 2010-11.

V.8 With strong credit growth not matched by commensurate deposit growth, banks increasingly financed their advances by raising CDs at higher rates. During surplus liquidity situations, when the CP rates are lower than the Base Rates, corporates take greater recourse to the CPs. They, however, prefer bank financing,

Table V.1: Stock Price Movements and PE Ratios in EMEs

(Per cent)

Stock Price Variations				P/E Ratios			
Item	End-March 2010@	End-March 2011@	End-March 2011*	Item	End-March 2010	End-Dec. 2010	End-March 2011
1	2	3	4	5	6	7	8
Indonesia (Jakarta Composite)	93.7	32.5	-0.7	Indonesia (Jakarta Composite)	13.6	20.9	18.5
Brazil (Bovespa)	72.0	-2.5	-1.0	Brazil (Bovespa)	16.4	13.9	11.6
Thailand (SET Composite)	82.6	32.9	1.4	Thailand (SET Composite)	12.4	15.2	14.0
India (BSE Sensex)	80.5	10.9	-5.2	India (BSE Sensex)	17.7	18.7	17.3
South Korea (KOSPI)	40.3	24.4	2.7	South Korea (KOSPI)	12.2	16.0	12.9
China (Shanghai Composite)	31.0	-5.8	4.3	China (Shanghai Composite)	23.1	16.1	16.6
Taiwan (Taiwan Index)	52.0	9.6	-3.2	Taiwan (Taiwan Index)	19.1	15.4	14.7
Russia (RTS)	128.0	30.0	15.5	Russia (RTS)	9.8	8.6	9.6
Malaysia (KLCI)	51.4	17.0	1.7	Malaysia (KLCI)	18.9	17.4	17.0
Singapore (Straits Times)	69.9	7.6	-2.6	Singapore (Straits Times)	13.4	11.3	10.9

@ : Year-on-year variation. * : End-March 2011 over End-December 2010.

Source: Bloomberg.

Table V.2: Rates in Domestic Financial Markets

	Money Market					Bond Market		Forex Market	Stock Market Indices	
	Call Rate* (Per cent)	Market Repo Rate (Non-LAF) (Per cent)	CBLO Rate (Per cent)	Comm-ercial Paper WADR (Per cent)	Certifi-cates of Deposit WAEIR (Per cent)	G-Sec 10-year yield (Per cent)	Corporate Bonds Yield - AAA 5-Yr bond (Per cent)	Exchange Rate (₹/US$)	CNX Nifty **	BSE Sensex **
1	2	3	4	5	6	7	8	9	10	11
Mar-10	3.51	3.32	3.15	6.29	6.07	7.94	8.61	45.50	5178	17303
Apr-10	3.49	3.04	2.95	5.37	5.56	8.01	8.37	44.50	5295	19679
May-10	3.83	3.79	3.67	6.85	5.17	7.56	8.15	45.81	5053	16845
Jun-10	5.16	5.29	5.21	6.82	6.37	7.59	8.21	46.57	5188	17300
Jul-10	5.54	5.37	5.25	6.93	6.69	7.69	8.27	46.84	5360	17848
Aug-10	5.17	5.12	5.01	7.32	7.17	7.93	8.52	46.57	5457	18177
Sep-10	5.50	5.35	5.24	7.82	7.34	7.96	8.52	46.06	5811	19353
Oct-10	6.39	5.96	5.88	12.15	7.67	7.68	8.58	44.41	6069	20250
Nov-10	6.81	6.42	6.14	12.22	8.16	8.03	8.64	45.02	6055	20126
Dec-10	6.67	6.27	6.20	10.10	9.15	8.03	8.89	45.16	5971	19228
Jan-11	6.54	6.21	6.20	8.81	9.42	8.15	9.05	45.39	5783	19289
Feb-11	6.69	6.45	6.43	9.05	10.04	8.12	9.25	45.44	5401	18037
Mar-11	7.15	6.56	6.46	10.40	9.96	8.00	9.23	44.99	5538	18457

*: Average of daily weighted call money rates. **: Average of daily closing indices.
WADR: Weighted Average Discount Rate. WAEIR: Weighted Average Effective Interest Rate.

once the CP rates rise above the Base Rate. Leasing-finance and manufacturing companies continue to be the major issuers of CPs (Table V.4).

V.9 The primary yields on Treasury Bills (TBs) firmed up during Q4 of 2010-11 in line with the spike in short-term interest rates (Table V.5).

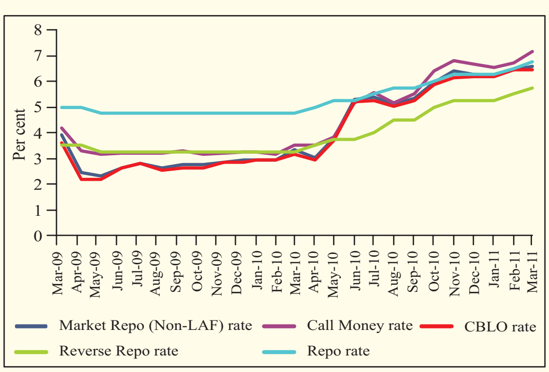
V.10 Annualised volatility of one year interest rate swaps increased during Q4 of 2010-11 (Chart V.3). This may reflect market uncertainties on future short-term money market rates.

The yield curve responds to monetary actions and lower budgeted borrowings

V.11 Responding to the persistently high inflation and tightening liquidity conditions, G-sec yields, both in the primary and secondary markets, firmed up during January 2011, but moderated thereafter. A lower-than-expected fiscal deficit and market borrowing programme for the first half of 2011-12 improved market sentiments. Yields eased in March 2011 in response to announcement of auctioning

Chart V.2: Movement in Money Market Rates and Turnover

a: Policy Rates and Money Market Rates



b. CP and CD outstanding *vis-a-vis* Non-food Credit Growth

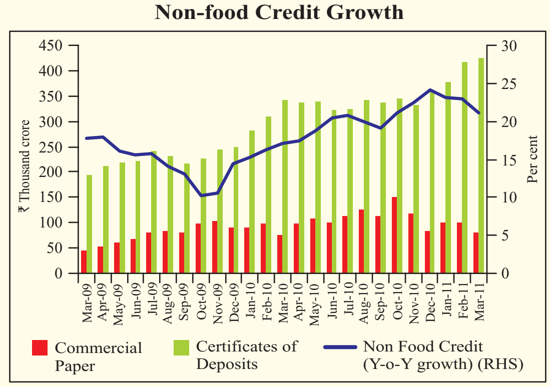


Table V.3: Average Daily Volumes in Domestic Financial Markets

(₹ crore)

	Money Market						Bond Market		Forex Market	Stock Market #
	LAF	Call Money	Market Repo	CBLO	Commercial Paper *	Certificates of Deposit*	G-Sec @	Corporate Bond	Inter-bank (US$ mn)	
1	2	3	4	5	6	7	8	9	10	11
Mar-10	37,640	8,812	19,150	60,006	75,506	3,41,054	6,221	1598	16,378	9,191
Apr-10	57,150	8,187	20,319	50,891	98,769	3,36,807	10,682	1671	18,411	9,262
May-10	32,798	8,393	17,610	42,274	1,09,039	3,40,343	18,774	1653	20,122	8,836
Jun-10	-47,347	7,129	9,481	31,113	99,792	3,21,589	14,523	1236	18,476	8,605
Jul-10	-46,653	9,477	12,011	29,102	1,12,704	3,24,810	10,105	1450	17,126	8,443
Aug-10	-1,048	7,958	15,553	45,181	1,26,549	3,41,616	12,488	1146	18,476	9,656
Sep-10	-24,155	8,606	15,927	53,223	1,12,003	3,37,322	11,582	1254	18,787	10,446
Oct-10	-61,658	8,920	14,401	43,831	1,49,620	3,43,353	10,355	1151	25,053	11,404
Nov-10	-99,311	8,865	9,967	32,961	1,17,793	3,32,982	7,645	922	22,092	11,190
Dec-10	-1,20,495	9,436	12,989	43,784	82,542	3,61,408	6,939	830	17,737	8,574
Jan-11	-92,933	7,758	11,546	44,815	1,01,752	3,77,640	7,025	912	20,054 P	8,430
Feb-11	-78,639	10,356	13,150	42,292	1,01,291	4,18,524	6,994	863	19,673 P	8,011
Mar-11	-80,963	11,278	15,134	43,201	80,305	4,24,740	8,144	1314	22.211 P	7,458

*: Outstanding position P:Provisional. #: Comprises volumes in BSE and NSE.

@: Average daily outright trading volume in Central Government dated securities.

Note: In col. 2 (-) ve indicates injection of liquidity while (+) ve indicates absorption of liquidity.

of unutilised investment limits for FIIs for G-Sec and corporate debt. The flattening of yield curve despite inflationary pressures may have been aided by policy rate hikes and temporarily lower issuances (Chart V.4a).

V.12 In the primary market, investors' sentiment remained positive, as reflected in the sustained bid-cover ratio, which stood in the range of 1.39-3.87 during the year and 1.69-3.25 during the fourth quarter. More long dated securities were issued to take advantage of the yield curve movements (Table V.6). The spreads on five-year corporate bonds over the corresponding government bond yield widened during the fourth quarter of 2010-11 on the back of tight liquidity conditions (Chart V.4b).

Table V.4: Major Issuers of Commercial Paper

(₹ crore)

End of Period	Leasing and Finance		Manufacturing		Financial Institutions		Total
	Amount	Share (%)	Amount	Share(%)	Amount	Share(%)	Outstanding
1	2	3	4	5	6	7	8
Mar-09	27,183	62	12,738	29	4,250	9	44,171
Jun-09	34,437	50	23,454	34	10,830	16	68,721
Sep-09	31,648	40	31,509	40	16,071	20	79,228
Dec-09	36,027	40	42,443	47	11,835	13	90,305
Mar-10	39,477	52	22,344	30	13,685	18	75,506
Jun-10	42,572	43	43330	43	13,890	14	99,792
Aug-10	57,161	45	55,933	44	13,455	11	1,26,549
Sep-10	58,098	52	40,485	36	13,420	12	1,12,003
Oct-10	80,306	54	54,894	37	14,420	9	1,49,620
Nov-10	58,871	50	45,457	39	13,465	11	1,17,793
Dec-10	49,282	60	24,960	30	8,300	10	82,542
Jan-11	55,591	55	35,601	35	10,560	10	1,01,752
Feb-11	51,339	51	40,262	39	9,690	10	1,01,291
Mar-11	46,350	58	22,695	28	11,260	14	80,305

Table V.5: Treasury Bills in the Primary Market

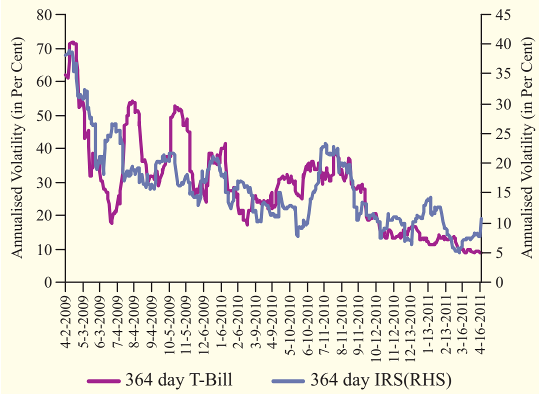
Year/ Month	Notified Amount (₹ crore)	Average Implicit Yield at Minimum Cut-off Price (Per cent)		
		91-day	182-day	364-day
1	2	3	4	5
2009-10	3,80,000	3.57	3.97	4.38
2010-11	3,03,000	6.04	6.47	6.66
Apr-10	36,000	4.14	4.64	5.07
May-10	36,000	4.39	4.76	4.92
Jun-10	12,000	5.29	5.31	5.41
Jul-10	16,000	5.51	5.86	5.88
Aug-10	33,000	6.15	6.41	6.48
Sep-10	13,000	6.11	6.41	6.59
Oct-10	26,500	6.57	6.82	6.97
Nov-10	24,000	6.82	7.15	7.14
Dec-10	19,000	7.14	7.29	7.37
Jan-11	21,000	7.17	7.37	7.55
Feb-11	29,500	7.15	7.51	7.68
Mar-11	37,000	7.23	7.49	7.61

V.13 Interest Rate Futures (IRF) on 91-day TBs were permitted by the Reserve Bank in March 2011. These futures will be cash settled with the final settlement price based on the weighted average price/yield obtained in the weekly auctions on the date of expiry of the contract. This is likely to enhance liquidity and also to provide more options for the financial markets to hedge interest rate risks through exchanges.

Deposit and lending rates transmit the anti-inflationary policy stance

V.14 Stronger transmission is evident as banks continued to increase both the lending rates and deposit rates across maturity spectrums. Deposit rates have risen rapidly to accommodate fast rise in credit and to offset the tight liquidity environment during 2010-11. Scheduled commercial banks (SCBs) raised their deposit rates in the range of 25-500 basis points between end-March 2010 and end-March 2011 across maturities. The deposit rates for 1-3 years maturity increased by 50-125 basis points during the fourth quarter (Table V.7). Several banks reviewed and increased their base rates by 75-125 basis points between July 2010 and March 2011. Base rates of 64 major banks with a credit share of around 98 per cent ruled in the range of 8.0-9.5 per cent in March 2011, reflecting greater convergence since base rates became operational effective July 1, 2010.

Chart V.3: Volatility in Treasury Bill and Interest Rate Swap



Exchange rate remains orderly and flexible

V.15 The rupee remained stable during the fourth quarter of 2010-11, without any

Chart V.4: Turnover and Yield in the Bond Market

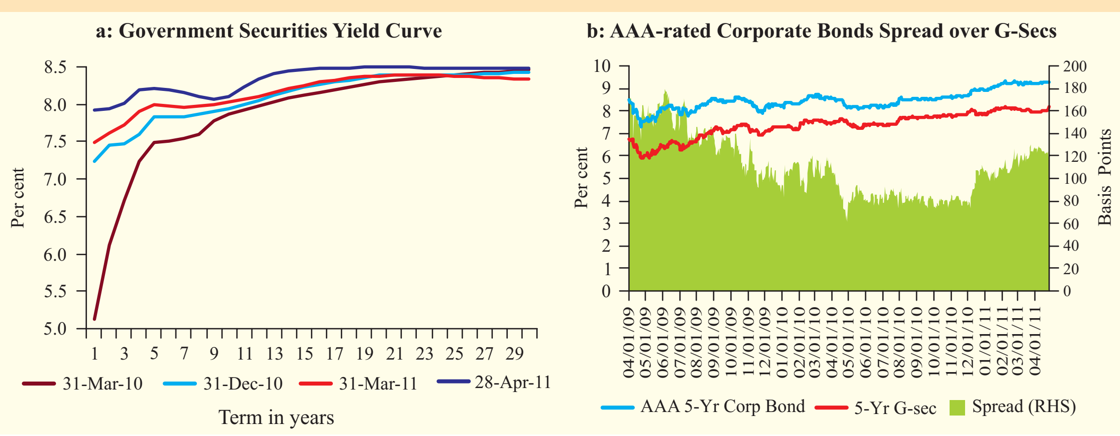


Table V.6: Issuances of Central and State Government Dated Securities

Item	2009-10	2010-11
1	2	3
Central Government		
Gross amount raised (₹crore)	4,51,000*	4,37,000
Devolvement on Primary Dealers (₹crore)	7,219	5,772
Bid-cover ratio (Range)	1.4-4.3	1.4-3.9
Weighted average maturity (years)	11.2	11.6
Weighted average yield (per cent)	7.2	7.9
State Governments		
Gross amount raised (₹crore)	1,31,122	1,04,039
Cut-off yield (Per cent)	7.0-8.6	8.1-8.6
Weighted average yield (per cent)	8.1	8.4

* : Inclusive of MSS desequestering of ₹33,000 crore.

intervention or active capital account management. It exhibited two-way movement against major international currencies except Euro. There was a modest appreciation against the US dollar since mid-February 2011 (Chart V.5a). While the turnover in inter-bank segment of the foreign exchange market remained volatile, the turnover in the merchant segment increased in Q4 of 2010-11.

V.16 Volumes in the exchange traded currency derivatives increased during Q4 of 2010-11 (Chart V.5b). The growth in volumes particularly for currency futures and options has been supported by retail participation and companies. In fact, the monthly trend of turnover in OTC forwards and swap involving rupee remained sluggish during this period. While turnover in the merchant segment decreased from USD 93 billion in October 2010 to USD 64 billion in March 2011 (up to March 25), the turnover in the inter-bank segment declined from USD 418 billion to USD 367 billion for the corresponding period.

Equity markets underperform, remain volatile

V.17 Reflecting several macroeconomic uncertainties, Indian equity markets underachieved and remained volatile during Q4 of 2010-11. Markets lost much of the valuation gains made during the last four months of 2010, when they outperformed most of the international markets. During Q4 of 2010-11, the BSE Sensex has been the worst performer amongst the major equity indices. Slowdown of net equity investment by the FIIs in India largely contributed to the decline (Chart V.6a). In terms of the coefficient of variation, the volatility of Sensex between end-December 2010 and end-March 2011 at 3.95 per cent is much higher than the 2.0 per cent of the MSCI emerging market index and 1.9 per cent of the MSCI world index. The equity derivatives segment had gone up

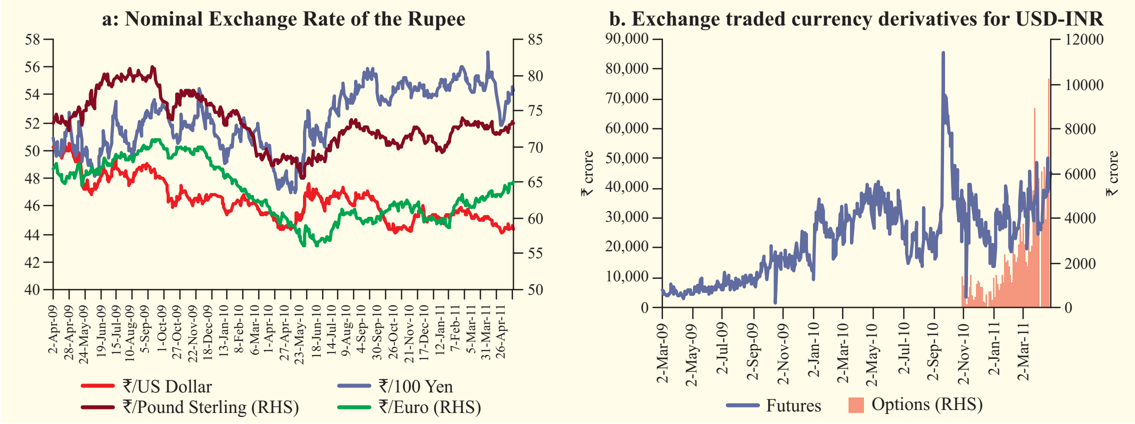
Table V.7: Deposit and Lending Rates of Banks

(Per cent)

	Sep-10	Dec-10	Mar-11
1	2	3	4
1. Domestic Deposit Rate (1-3 years tenor)			
a. Public Sector Banks	6.75-7.75	7.00-8.50	8.00-9.75
b. Private Sector Banks	6.50-8.25	7.25-9.00	7.75-10.10
c. Foreign Banks	3.00-8.00	3.50-8.50	3.50-9.10
2. Base Rate			
a. Public Sector Banks	7.50-8.25	7.60-9.00	8.25-9.50
b. Private Sector Banks	7.00-8.75	7.00-9.00	8.25-10.00
c. Foreign Banks	5.50-9.00	5.50-9.00	6.25-9.50
3. Median Lending Rate*			
a. Public Sector Banks	7.75-13.50	8.75-13.50	-
b. Private Sector Banks	8.00-15.00	8.25-14.50	-
c. Foreign Banks	7.25-13.00	8.00-14.50	-

* : Median range of interest rates at which at least 60 per cent of business has been contracted.

Chart V.5: Trends in Forex Market



substantially over the year and currently constitutes almost 90 per cent of the overall investments. FII investments accounted for 19.8 per cent of the total investments in derivatives (Chart V.6b)

V.18 The activity in the primary segment of the domestic capital market remained buoyant during the first three quarters of 2010-11, but moderated during Q4. However, resources raised through public issuances were higher during 2010-11 than the previous year (Table V.9). During the year, resource mobilisation by mutual funds turned negative, owing to high volatility in the market, surfacing of risks in the real sector, lower retail investments possibly on account of higher returns on competing instruments (bank deposits in particular) and also due to lower corporate support to the MFs.

Asset price concerns remain as housing prices remain firm

V.19 Property prices continued to rise in most cities during Q3 of 2010-11, as reflected in the Reserve Bank's Quarterly House Price Index (HPI) based on data in respect of seven cities collected from the Department of Registration and Stamps (DRS) of the respective State Governments. However, the indices for Delhi and Chennai witnessed a decline during this period (Chart V.7).

Macro-factors may determine financial market movements ahead

V.20 Going forward, macroeconomic factors may dominate financial markets movements in 2011-12. Macro-risks are large and uncertainty abounds on how they might play out. Global commodity markets are witnessing firming up

Chart V.6: Movement in Stock Prices and Turnover

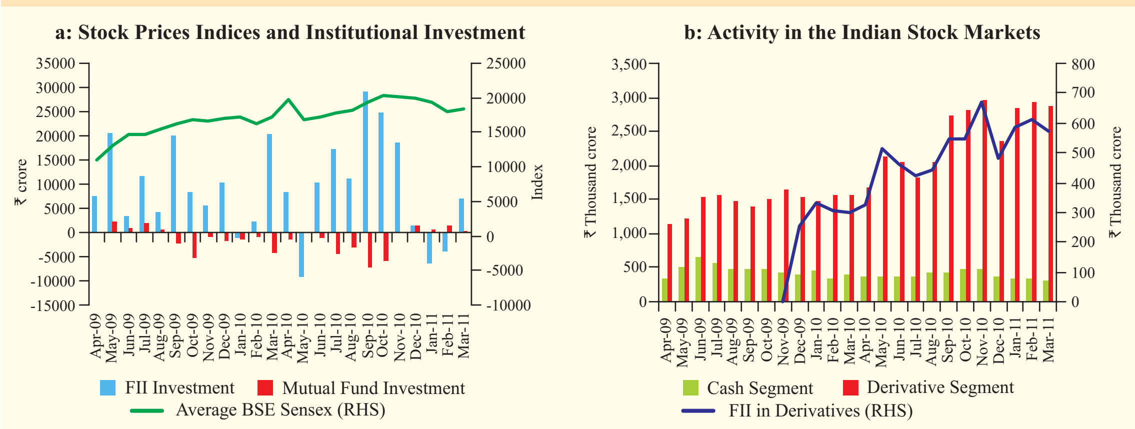
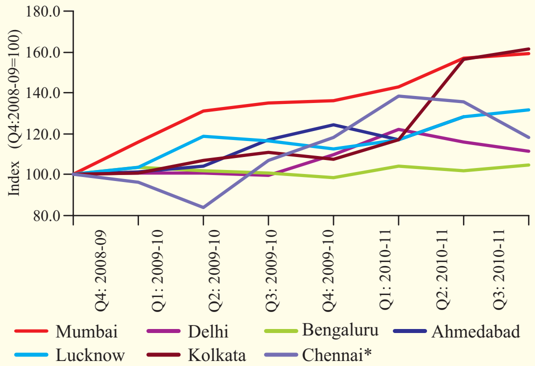


Table V.8: Key Stock Market Indicators

Indicator	BSE Sensex		NSE Nifty	
	2009-10	2010-11	2009-10	2010-11
1	2	3	4	5
1. BSE Sensex/S&PCNX Nifty				
(i) End-period	17527.77	19445.22	5249.1	5833.75
(ii) Average	15585.2	18605.18	4657.76	5583.54
2. Coefficient of Variation	11.88	6.32	11.33	6.4
3. Price-Earning Ratio @	21.32	21.15	22.33	22.14
4. Price-Book Value Ratio	3.9	3.7	3.7	3.7
5. Market Capitalisation to GDP Ratio (per cent)@	98.9	86.8	96.4	85.1

@: As at end-period.
Source: Bombay Stock Exchange Ltd. (BSE) and National Stock Exchange of India Ltd. (NSE).

Chart V.7: Trends in House Price Index



* Chennai index is Property Price Index containing both residential and commercial properties

of prices. Even though several hedge funds have booked profits in the global commodity markets in mid-March 2011 following the Japan earthquake, a fresh wave of speculation has arisen immediately after profit-booking as a result of MENA region event risk.

V.21 Domestic debt markets are likely to be conditioned by evolving fiscal and monetary policy considerations as well as possible hardening of global yields. However, the path of fiscal consolidation embarked upon by the Government could help to ease the pressure on long-term bond yields in the G-Sec market, if inflationary expectations are reined in. Sustained growth momentum could, however, continue to exert pressure on interest rates through high demand for credit. The risk of volatile portfolio flows impacting asset prices and exchange rate remains in the face of growing uncertainties in the global markets. The expected change in operating procedures could help improve the transmission of monetary policy on an enduring basis, enabling interest rate channel to work better.

Table V.9: Resource Mobilisation from Capital Market

(₹ crore)

Category	2008-09	2009-10	2010-11
1	2	3	4
A. Prospectus and Rights Issues*	14,671	32,607	37,620
1. Private Sector (a+b)	14,671	25,479	24,373
a) Financial	466	326	3,877
b) Non-financial	14,205	25,153	20,496
2. Public Sector	0	7,128	13,247
B. Euro Issues	4,788	15,967	9,441
C. Mutual Fund Mobilisation(net)@	-28,296	83,080	-49,406
1. Private Sector	-34,017	54,928	-19,215
2. Public Sector #	5,721	28,152	-30,191

* Excluding offer for sale. @: Net of redemptions. #: Including UTI Mutual fund.
Source: Mutual Fund data are sourced from SEBI and exclude funds mobilised under Fund of Funds Schemes.