## Debt market

4.34 The Indian debt market, while composed of government bonds and

corporate bonds, is dominated by government bonds. Bonds issued by the Government of India (GOI), i.e. the Central Government, are

Table 4.17 : Government of India (GOI) bond market size								
				(Rs. crore)				
		For calendar year						
	2001	2002	2003	2004				
Gross issuance	1,11,000	1,20,213	1,13,000	1,19,500				
End-year market cap.	5,14,171	6,55,148	9,59,903	9,96,341				
SGL turnover	10,36,951	12,93,814	15,98,052	10,70,896				
Turnover ratio (per cent)	201.67	197.48	166.48	107.48				
Number of bonds with TR > 75 per cent	36	33	40	28				
Demat GOI bonds at NSDL :								
Value (Rs. crore)			1,956	3,688				
Number of accounts containing GOI bon	ds 527	924	1,580	1,960				

the predominant and most liquid component of the bond market. Since government bonds have much lower volatility than equities, and all bonds are priced based on the same macroeconomic information, bond market liquidity is normally much higher than stock market liquidity in in most countries.

4.35 Owing to fiscal deficits, supplemented by issuance under the Market Stabilisation Scheme, a high volume of issuance took place on the GOI bond market for all the four years (Table 4.17). In comparison, the volume of issuance of corporate securities (Table 4.2) was smaller.

4.36 The market capitalisation of the stock of outstanding GOI bonds rose sharply in 2003, reflecting a combination of fresh issuance and lower interest rates. The market capitalisation in 2004 did not rise significantly, reflecting an increase in interest rates.

4.37 On the bond market, it is difficult to compute impact cost, which is the best measure of liquidity. Turnover ratio (TR), which is a proxy for liquidity, declined from roughly 200 per cent in 2001 and 2002 to a level of roughly 100 per cent in 2004. Even though bond market capitalisation doubled, fueled by a high volume of issuance, bond market turnover in 2004 was at the levels seen in 2001. The bond market has not yet obtained exchange-traded futures and options, which can play a major role in price discovery, risk management and liquidity.

ratio of above 75 per cent. The number of bonds with plausible liquidity has dropped over this period. For a comparison, the number of individual stocks with a turnover ratio above 75 per cent is reported to have gone up from 207 in 2001 to 445 in 2004. Going by CCIL data, just 20 participants accounted for 54 per cent of the bond market turnover.

4.38 In 2004, only 28 bonds had a turnover

4.39 The short end of the yield curve, as measured by the interest rate on the notional oneyear zero-coupon bond, dropped from 6.75 per cent in December 2001 to 4.75 per cent in December 2003 (Table 4.18). It rose sharply to 6.09 per cent in December 2004. When interest rates go up, bond prices go down, and negative returns are obtained. Hence, after a three-year period of positive returns on the

## Table 4.18 : GOI bond market outcomes

	Calendar year							
	2001	2002	2003	2004				
Notional GOI ZC 1-year bond:								
Interest rate	6.75	5.44	4.75	6.09				
Returns (per cent)	3.06	1.37	0.73	-1.24				
Returns volatility	0.25	0.15	0.27	0.36				
Notional GOI ZC 10-year bond:								
Interest rate	8.16	6.12	5.38	6.78				
Returns (per cent)	28.11	20.28	6.83	-12.66				
Returns volatility	0.65	0.58	0.59	0.71				
NSE GOI bond index:								
Returns (per cent)	23.23	15.95	10.03	-3.75				
Returns volatility	0.34	0.43	0.39	0.59				

notional one-year zero-coupon bond, negative returns were experienced in 2004.

4.40 A similar pattern was observed for the long end of the yield curve, proxied by the notional 10-year zero-coupon bond. This interest rate fell from 8.16 per cent in December 2001 to 5.38 in December 2003, and rose to 6.78 per cent in 2004, inducing returns of -12.66 per cent in this period. These negative returns were in sharp contrast to the

strong returns which had been obtained on long bonds in 2003 and particularly in 2001 and 2002.

4.41 The NSE GOI bond index shows the performance of all outstanding GOI bonds, reflecting a mix of short-dated and long-dated bonds. The index had generated handsome returns in 2001 and 2002. It delivered negative returns in 2004, and experienced heightened returns volatility.