

Centre's Market Borrowing

4.30 The Union Budget for 2001-02 estimated Centre's gross market borrowing programme for the current financial year at Rs.1,18,852 crore as against Rs. 1,17,704 crore in 2000-01. Till December 28, 2001, Rs.1,16,002 crore or 97.6 per cent of the budgeted amount was completed. While 85.0 per cent of this amount was borrowed via dated securities, 364-day Treasury Bills accounted for the remaining 15 per cent. After allowing for repayment/redemptions amounting to Rs.36,999 crore comprising both dated securities and 364-day Treasury Bills, the net borrowing of the Central Government till December 28, 2001 worked out to Rs. 79,002 crore or 102.1 percent of the budgeted net borrowing for 2001-02 (Table 4.9).

4.31 More than one-third of the total borrowing through dated securities in the first half of the current financial year was completed in the very first month. Despite comfortable liquidity, about 43 per cent devolved on RBI via private placement, which reflected unexpected cash flow mismatches of a large magnitude for the Central Government. Though the weighted average maturity (WAM) increased from 12.76 years in April 2001 to 16.50 years in May 2001, the weighted average yield (WAY) declined from 10.39 per cent to 10.14 per cent during this period. With a significant fall in WAM to 11.19 years in December 2001, WAY also fell to 7.54 per cent.

4.32 The product spectrum in the Government securities market got widened with the

TABLE 4.9
Central Government's Market Borrowing through Dated Securities
(April-December, 2001)

Month	NA (Rs. crore)	PP (per cent to NA)	WAM (in years)	WAY (per cent)
April	28,000	42.9	12.76	10.39
May	14,000	35.7	16.50	10.14
June	10,000	40.0	11.80	9.59
July	12,000	0	13.07	9.43
August	6,000	23.6	13.87	9.70
September	7,000	0	15.00	9.62
October	8,000	0	16.73	9.90
November	10,000	40.0	16.47	8.43
December	6,000	0	11.19	7.54

NA : Notified Amount; PP: Private Placement;
WAM : Weighted Average Maturity
WAY : Weighted Average Yield

introduction of floating rate bonds (FRB) in November. The 5 year FRB was sold on the basis of uniform price auction on November 21, 2001. The subscription through 214 bids amounted to Rs. 10,315 crore which far exceeded the notified amount of Rs. 2,000 crore. The notified amount could be raised through 7 bids. With a negative cut-off mark-up (-0.05 per cent), the base rate for the first half year worked out to 7.01 per cent per annum. The subscription to the sale of the second FRB, an eight year one, held on December 5, 2001 also exceeded the notified amount of Rs. 3,000 crore by a big margin. After allowing for the negative cut-off mark-up (-0.01 per cent), the base rate for the first half year worked out to 6.98 per cent per annum.

Fig. 4.6

Long and Short Interest Rates



4.33 Figure 4.6 shows the time series of the 90-day and 10-year rate, derived from daily estimates of the zero coupon yield curve at NSE. The term ‘short rate’ is used for the 90-day rate and the term ‘long rate’ is used for the 10-year rate. The short rate fell very sharply from 10.11 per cent at the end of October 2000 to 5.93 per cent on August 11, 2001. Over this same period, the long rate fell from 11.55 per cent to 9.60 per cent. To take a slightly longer perspective, the long rate had fallen from 12 per cent in January 1999 to 8 per cent on January 15, 2002; over this same period, the short rate fell from 11 per cent to 6.5 per cent. The current levels of the interest rate are well below the administered interest rates in the economy such as RBI Relief Bonds, interest rates on small savings, etc.

4.34 In recent months, there has been a pronounced flattening of the yield curve – spread between the short rate and the long rate has dropped from around 4 per cent to below 2 per cent. While there has been a sharp, recent drop in the long/short spread, the present value of the long-short spread of around 2 per cent is comparable to the values which prevailed over the period from late 1998 to the middle of 2001.

Volatility

4.35 Figure 4.7 shows the time series of volatility of the long and short interest rates. For

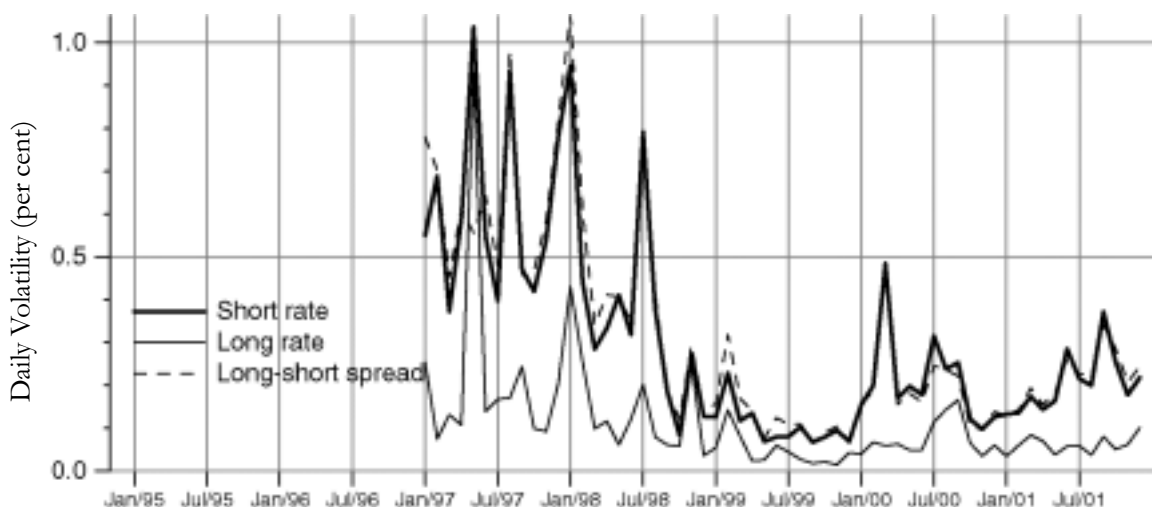
each month, it shows the standard deviation of the change in interest rates from one day to the next. The short and long rates refer to 90-day and 10 year rate from the NSE zero coupon yield curve respectively. The interest rates were extremely volatile in 1997 and early 1998 and less volatile in the later period. In particular, 1999 was a year with very low volatility. Through the entire period, the long rate has been less volatile than the short rate. In recent months, the interest rate volatility has risen slightly. In September, 2001, the global turbulence in financial markets was associated with elevated volatility of the short rate at 0.37. This has dropped to 0.22 in December, 2001. The volatility of the long rate in December, 2001 was 0.10. A striking feature is the extent to which the volatility of the long/short rate has been moving closely with the volatility of the short rate. This suggests that the fluctuations in the short rate are the main sources of risk in terms of change in the long/short spread.

Liquidity

4.36 The existing design of the debt market does not allow measurement of liquidity. Turnover data is used here as a proxy for liquidity. Figure 4.8 shows the time series (log scale) of

Fig. 4.7

Volatility of Interest Rates



turnover on the debt market. All transactions on Government of India securities are settled at RBI's subsidiary general ledger (SGL). A subset of these transactions are reported at NSE's wholesale debt market (WDM). Some corporate bond transactions are also reported at NSE's WDM. Hence, the data for NSE's WDM is not a strict subset of RBI's SGL information. The debt turnover stagnated from July, 1995 till August, 1998 at around Rs.10,000 crore per month. From August, 1998 till January, 2002, debt turnover has risen ten fold, marking an enormous increase in the transactions taking place in the market.

Treasury Bills

4.37 The auction of 14-day and 182-day Treasury Bills was discontinued from May 14, 2001. The notified amount in the 91-day Treasury Bills had been increased to Rs. 250 crore since May 16, 2001. The dates of payment for both 91-day and 364-day Treasury Bills had been synchronised so that they could provide adequate fungible stock of Treasury Bills of varying maturity in the secondary market. There has been a significant drop in yield in the current financial year (Table 4.10 and Fig.4.9)

Fig. 4.8

Debt Turnover: RBI SGL and NSE WDM

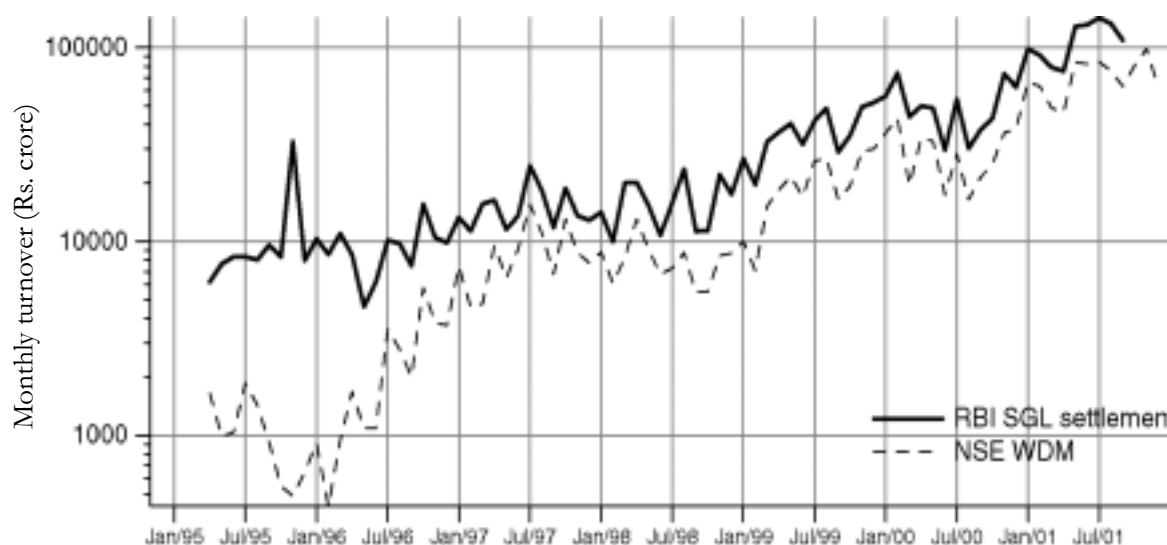


Fig. 4.9

Implicit Yields on Treasury Bills at Cut-off Price

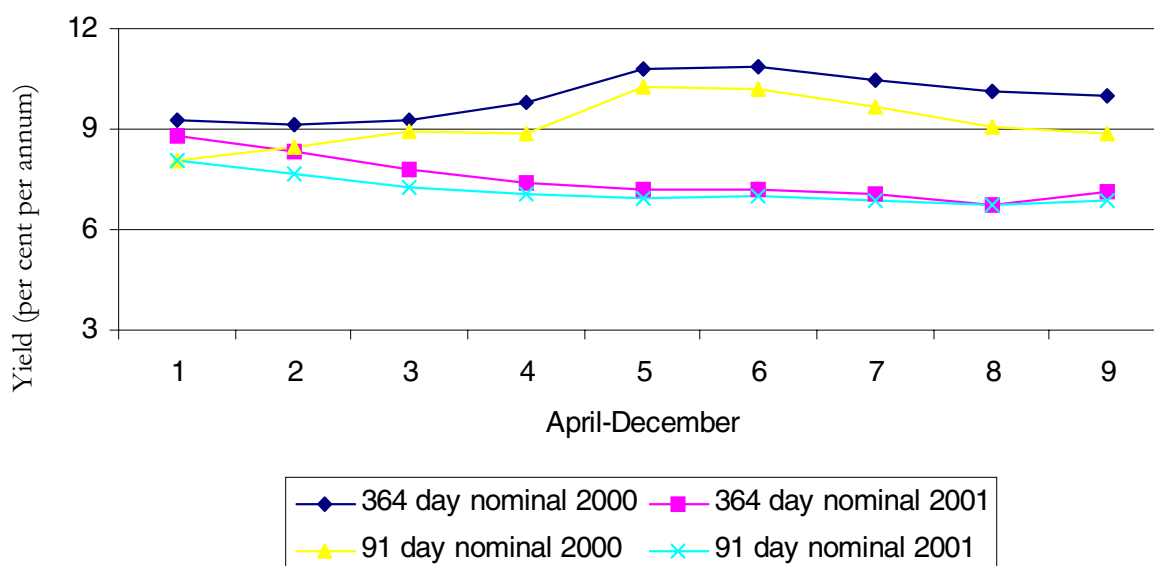


TABLE 4.10
Yield on Treasury Bills

(Per cent)

Month	364-Day Bills		91-Day Bills	
	2000-01	2001-02	2000-01	2001-02
April	9.27	8.83	8.05	8.06
May	9.15	8.33	8.46	7.65
June	9.24	7.83	8.91	7.26
July	9.77	7.37	8.86	7.07
August	10.81	7.22	10.29	6.91
September	10.85	7.21	10.17	7.01
October	10.46	7.05	9.67	6.86
November	10.15	6.75	9.08	6.71
December	10.02	7.13	8.90	6.89

Open Market Operations (OMOs)

4.38 OMOs constitute the most important tool for long-term liquidity management through sale and purchase of Government securities during periods of easy and tight liquidity conditions respectively. During the first 9 months of the current financial year, OMO purchases were effected in only one month (September), which amounted to Rs. 4,971 crore compared with OMO sales in every month, aggregating to Rs.30,187 crore up to December, 2001. The OMO purchase in September reflected the special circumstances in the wake of the terrorist attack on the WTC and the resulting uncertainty in financial markets all over the world.