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**Public Debt in India:  
The Need to Separate Debt from Monetary Management**

by

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### **Abstract**

*In India, traditionally, a large component of domestic government debt was incurred at low rates of interest, which was statutorily prescribed for subscription by the institutional investors. A substantial amount of domestic debt was also monetised. The fiscal domination of monetary policy left very little flexibility for the Reserve Bank of India, the central bank of the country, to pursue a monetary policy conducive to the overall objective of development of financial markets, price stability and economic growth. In the last decade, due to financial sector reforms undertaken since 1991, the money and government securities markets have developed with the offering of market-related rates of interest on government securities, introduction of new instruments, setting up of trading institutions, and improved regulatory and technological developments. The interest rates in the financial markets are converging and the markets are becoming integrated. The debt management functions and practices have also developed substantially since 1991. In view of the developments in the markets and the commitment on the part of the central government to contain the fiscal deficit, it would be prudent to consider now the separation of monetary and debt management. The separation would provide the central bank with necessary independence in monetary management and an environment to pursue an inflation target, if assigned by the government. The separation of debt management would provide focus to the task of asset-liability management of government liabilities, undertake risk analysis and also help to prioritise government expenditure through higher awareness of interest costs.*

**Keywords:** India, monetary policy, public debt

**JEL Codes:** E52, F34, O23, O53

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## **Public Debt in India – Need to Separate Debt from Monetary Management**

In India, traditionally, a large component of domestic government debt was incurred at low rates of interest, which was statutorily prescribed for subscription by the institutional investors. A substantial amount of domestic debt was also monetized. The fiscal domination of monetary policy left very little maneuverability for the Reserve Bank of India (RBI), the central bank of the country, to pursue a monetary policy conducive to the overall objective of development of financial markets, price stability and economic growth.

In most of the developed economies, borrowing by the government from the central bank is prohibited. Further, to help the central bank to focus on the objective of stabilizing the price level, the debt management function has been separated from the monetary authority. In India too, the issue was debated in late 1990's and it was concluded that such separation would require well-developed financial markets to finance the government fiscal deficit. Then, India still had an administered interest rate regime. In the last decade, due to financial sector reforms undertaken since 1991, the markets have developed and the last remnants of administered interest rates on small savings are now being dismantled. Also, the Fiscal Responsibility and Budget Management Act of 2003 includes a clause restricting the Government from directly borrowing from the RBI from April 1, 2006. Therefore, it is considered that the separation of debt and monetary management can be undertaken now in India.

This paper discusses the current status of domestic debt and related issues of contingent liability, development of the government securities market and monetization of domestic debt as a backdrop to the argument emphasizing the need to separate debt and monetary management. The rising trend in domestic debt in India since 1952 for the overall government, with developments in instruments and institutions, is presented in detail in Section 1. The objective of presenting these details is two-fold - to trace the developments from its origin to the present status

and to discuss the issue of management of each component. The problem of rising contingent liabilities is discussed in Section 2. The focus of discussion in Section 3 is on the recent developments in the markets (money and government), which can now accommodate the financial requirements of the government. In the absence of the developed markets, monetised deficit was high, as RBI was extending credit to the government, which has direct implications for the money supply and prices. A large number of empirical studies have examined the causal relationship between money supply and prices, and substantiated the monetarist hypothesis in India. This issue is discussed in Section 4. Having discussed the components and management of debt, and the implications of borrowing from the RBI, the paper then reviews the merits of separation of debt management from monetary management, examines its implications and recommends its applicability to India in Section -5. Finally, conclusions are presented. In Appendix – I, three case studies (UK, New Zealand and Sweden) are presented to illustrate the working of a separate debt management office. In Appendix – II, salient features of a separate debt management office, based on the experience of several developed countries, are discussed in detail.

### **Section - 1: Trends in Public debt**

Public debt of the country has increased from 32.1 per cent of GDP in 1952<sup>1</sup> to 76.7 per cent in 2004, mainly due to domestic debt, which rose from 30.8 per cent to 74.9 per cent over the period.<sup>2</sup> The pattern in the rise of public debt reveals that external debt rose rapidly until 1971 and since then has been declining while India's domestic debt has been steadily increasing since 1980<sup>3</sup> (Table-1).

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<sup>1</sup>The financial year in India refers to the period, April 1 to March 31. The figures for debt refer to end-March of the year.

<sup>2</sup>The domestic debt of the Government is computed from the debt of the Central (Federal) Government and the State (Provincial) Governments. The debt position of the State Governments is available only from 1952 onwards.

<sup>3</sup>Two major reasons for increasing reliance on domestic borrowings are - (a) oil shocks and (b) political expediency - difficulty in getting foreign aid in the early seventies (due to the Indo-Pak war of December 1971) and international sanctions following the nuclear tests in May 1998. India since 1971 has increasingly adopted the policy of self-reliance.

The domestic debt rose from Rs.31.0 billion in 1952 to Rs.22,702.4 billion in 2004, recording an average annual growth rate of 13.4 per cent over the period. The annual average growth rate in domestic debt has been 9.3 per cent during 1952-60, 8.6 per cent during 1961-70, 12.6 per cent during 1971-80, 19.3 per cent during 1981-90, 15.6 per cent during 1991-2000 and 16.0 per cent during 2001-04. In contrast, the annual average growth rate in nominal GDP during the same period was 5.3 per cent, 10.6 per cent, 11.1 per cent, 15.0 per cent, 14.8 per cent and 9.4 per cent, respectively while the average during the period was 11.4 per cent. Thus, the growth in domestic debt has been higher than that of GDP in all the periods except 1961-70. The persistently higher rate of growth of domestic debt as compared to GDP implies a higher burden of debt.<sup>4</sup>

**Table - 1: Public Debt of the Government**

Year (End of March)	(percent)					
	<i>As per cent to the Total</i>			<i>As per cent of GDP</i>		
	Domestic Debt	External Debt#	Public Debt	Domestic Debt	External Debt#	Public Debt
1	2	3	4	5	6	7
1952	95.8	4.2	100.0	30.8	1.4	32.1
1960	92.1	7.9	100.0	42.2	3.6	45.8
1970	69.8	30.2	100.0	35.8	15.5	51.3
1980	82.2	17.8	100.0	42.3	9.2	51.4
1990	90.5	9.5	100.0	55.5	5.8	61.4
2000	95.1	4.9	100.0	59.2	3.3	62.2
2001	95.3	4.8	100.0	62.8	3.1	65.9
2002	95.6	4.4	100.0	68.2	3.1	71.4
2003	96.8	3.2	100.0	73.3	2.4	75.7
2004*	97.8	2.2	100.0	74.9	1.7	76.7

\* Estimates. # At historical exchange rates.

**Source:** Reserve Bank of India.

The increasing reliance on domestic debt emerged in the early 1980s, with the Central Government recording a deficit on the revenue account<sup>5</sup> for the first time in 1979-80 which has continued since then. The State Governments have recorded a revenue

<sup>4</sup>As Domar (1944) observes “It is hoped.....the problem of debt burden is essentially a problem of achieving a growing national income. A rising income is of course desired on general grounds, but in addition to its many other advantages it also solves the most important aspects of the problem of the debt. The faster income grows; the lighter will be the burden of the debt” (pp. 822-823).

deficit since 1987-88. The Government recording a deficit on revenue account implies that borrowings are being utilised for consumption purposes and not for asset creation for which it is arguably incurred.

In India, since 1951, with the beginning of the Five-Year Plans, the Planning Commission<sup>6</sup> had favoured the expansion of the debt base, anticipating an important role for borrowings in economic development (Table - 2).<sup>7</sup> The impact of domestic debt on economic growth has been analysed theoretically in the context of two contrasting views – Keynesian (Ferguson, 1964), which considers it a burden, and Ricardian (Barro, 1978 and 1989), which considers it neutral. In the Indian context, Rao (1953) and Brahmananda ((1980) consider deficit financing useful for economic development while Minhas (1987) and Singh (1999a) conclude that debt and growth are not related.

The major cause of rising domestic debt and its utilisation to finance revenue deficit, is the rigidity and the limited scope for further expansion of the tax receipts and low non-tax revenue to meet the growing expenditure, mainly non-developmental. The tax to GDP ratio though low at 14.5 to 17.1 per cent has been stagnant for nearly three decades mainly due to non-taxation of agricultural sector; inadequate taxation of services sector; and large scale evasion and avoidance of tax compliance. The restructuring of indirect taxes, especially excise and customs, has dampened the growth of tax revenue (Singh, 2005). The ratio of non-tax revenue to GDP also continues to be low at 4.0 per cent, mainly due to lower user charges, loss making public enterprises and low returns on public sector investment.

The gross fiscal deficit and revenue deficit of the government continues to be high and non-developmental expenditure has been rising faster than the developmental

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<sup>5</sup> Government Accounts are divided into revenue (where nature of receipts (taxes, dividends, interest) and expenditure (mainly consumption) are such that do not create assets) and capital account (where interest obligations and assets are created).

<sup>6</sup>Planning Commission, Government of India, is responsible for long term planning in the country, and drafts the Five Year Plans launched since 1951.

<sup>7</sup>Rao (1953).

expenditure. The major causes of rise in non-developmental expenditure are interest payments and defence expenditure, accounting for nearly one-third of total expenditure. Interest payments increased from 2.4 per cent of GDP in 1980-81 to 7.0 per cent in 2003-04 with a secular fall in the interest rates in the economy since 1996. Defence expenditure increased from 2.5 per cent of GDP in 1980-81 to 3.4 per cent by 1987-88 but since then has been declining - at present is in the range of 2.2-2.5 per cent.

**Table - 2: Share of Borrowing in the Financing Pattern of the Five-Year Plans of the Government**

(per cent)

Five Year Plans	Period of the Plans	Total Plan Outlay	Total Borrowing (5+6)	Domestic Borrowing	External Borrowing
1	2	3	4	5	6
First	1951-56	100.0	61.6	52.0	9.6
Second	1956-61	100.0	73.7	51.2	22.5
Third	1961-66	100.0	66.1	37.8	28.2
Annual	1966-69	100.0	76.0	40.1	35.9
Fourth	1969-74	100.0	66.1	53.2	12.9
Fifth	1974-79	100.0	48.0	33.1	14.8
Annual	1979-80	100.0	52.2	43.5	8.6
Sixth	1980-85	100.0	63.3	55.6	7.7
Seventh	1985-90	100.0	81.1	72.0	9.1
Annual	1990-92	100.0	95.9	83.4	12.5
Eighth	1992-97	100.0	85.7	75.8	9.7
Ninth	1997-02	100.0	59.7	53.6	6.1
Tenth*	2002-07	100.0	61.2	59.5	1.7

**Note:** \* Estimates.

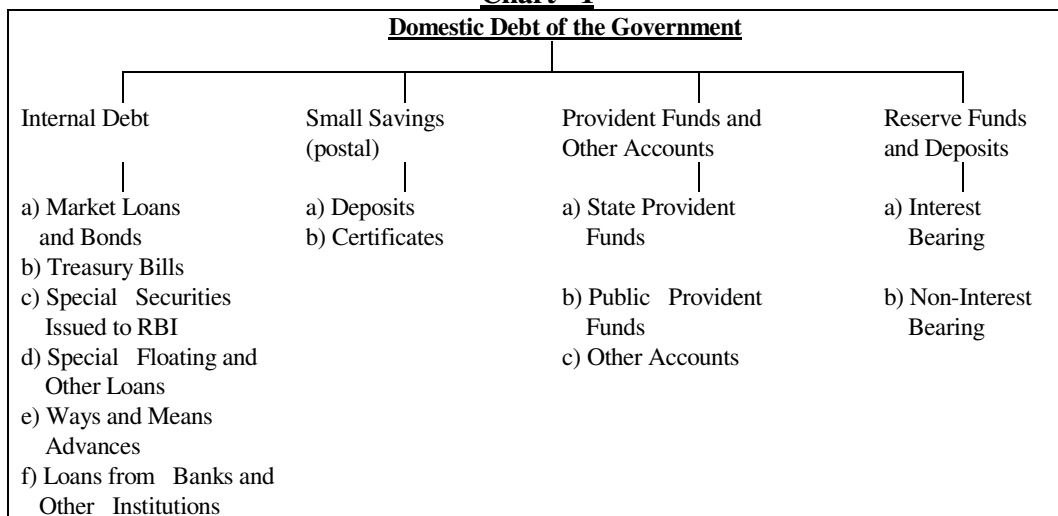
**Source:** Reserve Bank of India.

### 1.2: Composition of Domestic Debt

The study of the composition of domestic debt, an important feature of fiscal policy of India, becomes essential to analyse the implications of the rising obligations (Chart -1). The major components are internal debt, small savings, provident funds, and reserve funds and deposits. Internal debt of the Government is secured under the Consolidated Fund of India in case of the Central Government and that of the States in the case of the State Governments. The Constitution of India provides for the option of placing a limit on the internal debt, both at the Centre and the States, but no such limit has been imposed so far. The other components of domestic debt arise in the government

accounts more in the capacity of a banker than as a borrower and are not secured under the Consolidated Fund of India.

**Chart - 1**



The composition of domestic debt has been changing over the period (Table - 3). The share of internal debt in domestic debt has been declining, but it still accounts for more than half of domestic debt. The share of provident funds and other accounts has steadily increased during the period. The annual average growth rate in all the components of domestic debt have been substantially higher since 1981 which as discussed earlier corresponds to the emergence of the revenue deficit of the Central Government since 1979-80 and the State Governments since 1987-88.

### 1.2.1: Internal Debt

The prominent components of internal debt are market loans and bonds, Treasury bills and Special securities issued to RBI. Amongst the components,<sup>8</sup> the share of market loans, Treasury bills and special floating loans has declined over the period (Table - 4).

The RBI acts as the debt manager for marketable internal debt, for the Central government as an obligation and for the State Governments by an agreement, under the

<sup>8</sup>Treasury bills, special securities issued to RBI, and special floating and other loans belong exclusively to the Central Government. Loans from banks and other institutions belong exclusively to the State Governments. Ways and Means Advances (WMA) and Market loans and bonds belong to both, the Central and the State Governments.



RBI Act, 1934. RBI decides about the maturity pattern, calendar of borrowings, instrument design and other related issues in consultation with the central government.

**Table - 3: Components of Domestic Debt of the Government**

(amounts in per cent to total; growth rates in percent)

Year (End of March)	Internal Debt	Small Savings Scheme	Provident Funds and Other Accounts	Reserve Funds and Deposits	Domestic Debt
1	2	3	4	5	6
1952	67.8	12.0	6.0	14.1	100.0
1960	72.2	13.9	6.1	7.9	100.0
1970	60.6	14.2	14.4	10.8	100.0
1980	61.0	14.9	16.6	7.5	100.0
1990	55.6	15.6	21.6	7.3	100.0
2000	55.1	16.0	24.7	4.2	100.0
2001	55.6	15.7	24.2	4.4	100.0
2002	55.8	16.2	23.3	4.7	100.0
2003	56.9	16.8	21.9	4.4	100.0
2004	58.0	17.5	20.3	4.2	100.0
Annual Average Growth Rates					
1952-80	9.9	11.0	14.7	8.1	10.1
1981-04	17.1	18.2	16.8	15.4	17.2
1952-04	13.5	14.3	16.6	11.6	13.4

*Source: Reserve Bank of India.*

**Table - 4: Major Components of Internal Debt of Government as per cent of Total Domestic debt**

Year (end of March)	Market Loans and Bonds	Treasury bills	Special Securities Issued to RBI	WMA	Special Floating loans	Loans from Banks and Financial Institutions	Internal Debt
1	2	3	4	5	6	7	8
1952	49.8	10.1	0.0	0.5	7.1	0.0	67.8
1960	46.0	20.7	0.0	0.4	4.4	0.7	72.2
1970	37.1	15.7	0.0	1.3	4.9	1.6	60.6
1980	34.5	22.1	0.0	0.4	2.5	1.6	61.0
1990	28.7	9.7	13.7	0.2	2.3	1.0	55.6
1995	29.4	7.3	13.0	-0.2	3.7	1.1	54.2
2000	38.4	1.6	10.8	0.6	2.0	1.8	55.1
2001	39.6	1.7	9.4	0.8	1.7	2.5	55.6
2002	40.8	1.8	8.0	0.8	1.5	2.8	55.8
2003	43.1	2.3	6.7	0.1	1.3	3.5	56.9
2004	44.8	1.9	5.8	0.1	1.1	4.3	58.0

*Source: Reserve Bank of India.*

### 1.2.1.1: Market Loans and Bonds

The market loans, also called rupee loans, consist of three kinds of obligations (a) Loans floated by the Government, (b) Loans issued by the Government in exchange for the *ad hoc* Treasury bills outstanding with the RBI,<sup>9</sup> and (c) Compensation and other bonds.<sup>10</sup> The borrowings are mainly through nominal denominated bonds though small amounts of index-linked bonds have been issued since 1995. In the market, index-linked bonds have not been performing well despite the theoretical advantages (Barro, 1995, 1997).

1.2.1.1.1: Trends in the Growth of Market Loans: Since the start of planning in India in the fifties the amount of market loans mobilised annually has been rising rapidly.<sup>11</sup> The outstanding rupee loans of the Government increased from Rs.15.5 billion at the end of March 1952 to Rs. 9,267.0 billion at the end of March 2004, recording an annual average growth rate of 13.3 per cent over the period. The rising trend in the annual average growth rate is perceptible from 1971-72 onwards and then again from 1978-79.<sup>12</sup> In the period 1981-91, 1991-2001 and 2001-2004, the annual average growth rates are 16.7 per cent, 19.6 per cent and 21.1 per cent, respectively, reflecting the increased requirements of funds in the face of limited scope of raising resources from taxation. The ratio of outstanding amount of market loans to GDP declined from 15.3 per cent in 1952 to 14.5 per cent in 1980-81 and since then has increased to 17.3 per cent in 1990-91 and further to 33.4 per cent in 2003-04. The share of market

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<sup>9</sup>This refers to the funding operations, which began in 1958-59, amounting to Rs. 19.3 billion till 1980-1981. These loans, offered in conversion, could be subscribed by the Public.

<sup>10</sup>Refers to miscellaneous debts, such as , the Hyderabad State Loans, and Bonds including 5-year Interest Free Prize Bonds; Premium Prize Bonds, 1963 and 1964; National Defence Bonds, 1972; Gold Bonds, 1977; National Defence Gold Bonds (A and B Series), 1980; Bonds (Voluntary Disclosures), 1985; Banks (Acquisition and Transfer) Compensation Bonds, 1979, 1990, and 1999; Jayanti Shipping Company (Acquisition of Shares) Compensation Bonds, 1981; Special Bearer Bonds, 1991; Gold Bonds, 1998; Land Ceiling Compensation Bonds of the State Governments, etc.

<sup>11</sup>In the earlier years, repayments exceeded the borrowing mainly due to the deflationary conditions in the economy and the bearish trends on the money and capital markets. It was only after 1953, with the establishment of stability and revival of confidence in the market that the Government was able to float substantial amount of loans (Dalaya (1966), p.23).

<sup>12</sup>This corresponds to the increased financial requirements by the Government due to the Indo-Pak War (December 1971) followed by the oil shocks.

borrowing during the year,<sup>13</sup> as per cent to total, has increased rapidly for the Central Government from 62.2 per cent in 1960-61 to 93.3 per cent in 1980-81 and since then has declined (Table – 5).

**Table – 5: Share of Government Market Loans and Bonds in Total**

(per cent to Total)

Year	Central Government Market Loans	Compensation Bonds	State Government Market loans and Bonds	Total
1	2	3	4	5
1960-61	55.0	7.2	37.8	100.0
1970-71	56.1	18.3	25.6	100.0
1980-81	88.5	4.8	6.7	100.0
1990-91	69.8	1.7	28.5	100.0
1999-00	84.2	0.6	15.2	100.0
2000-01	86.5	-1.3	14.8	100.0
2001-02	78.3	6.3	15.4	100.0
2002-03	71.1	9.2	19.7	100.0
2003-04	57.7	12.5	30.3	100.0

*Source: Government of India.*

The market loans were raised by the Government, both Central and State, from the market on fixed coupons and prices till 1992. As a part of the financial sector reforms, borrowings for the Central Government have been undertaken through auctions of government securities of different maturities since June 3, 1992. The amounts are notified about a week in advance and the cut-off yields in the auction determine the coupon rates. Since April 2002, RBI has been announcing a semi-annual calendar of dates, indicative amount and tenure of the bonds, to minimize uncertainty and elicit a better price for the securities. The RBI may, in view of the unanticipated cash needs, also accept private placement from the Government, which is outside the calendar. In continuation of the earlier practice, RBI has been providing initial subscription even in an auction, if market conditions are not conducive for absorption of the complete amount (Table – 6). RBI, then, offloads such initial acquisitions when the liquidity conditions/expectations stabilize, or, at its discretion through strategic open market sales depending upon capital flows, credit growth, and requirements of monetary

<sup>13</sup>Normally, the Central and the State Governments float market loans separately. Consolidated loans were, however, issued in 1954-55 and 1963-64 (RBI (1970), p.26).

management. Devolvement/private placements, therefore, help in containing volatility in the market.

**Table - 6: Initial Support in Primary Market to Government of India Market Loans**

Year	Notified Amount (Rs. Billion)	Subscription (per cent to Notified Amount)	
		Reserve Bank of India	Primary Dealers
1	2	3	4
1992-93	48.2	45.9	0.0
1993-94	78.5	5.5	0.0
1994-95	70.0	2.2	0.0
1995-96	386.3	32.8	0.0
1996-97	270.0	13.7	1.32
1997-98	433.9	30.0	4.4
1998-99	837.5	45.6	3.7
1999-00	866.1	31.2	3.2
2000-01	1,002.1	31.1	7.4
2001-02	1,142.1	25.3	0.6
2002-03	1,250.0	28.9	2.2
2003-04	1,215.0	17.7	0.0

*Source: Reserve Bank of India.*

In the case of State Governments, the auction system has been initiated from January 1999 and now an increasing number of States are resorting to the auction system - 9.9 per cent of total State loans were raised through the auctions in 2002-03 and 5.7 per cent in 2003-04. Even if the State loans are not raised through the auction, the coupon rates have been aligned to the market rates – the coupon rate of similar maturity of the bond of the Central Government is taken as a benchmark and a liquidity premium of 25-50 basis points is added.<sup>14</sup> RBI does not directly subscribe to the State loans as a matter of practice but accepts it as collateral for extending short-term finance.

1.2.1.1.2: Maturity Pattern of Market loans: The maturity pattern of the market loans and bonds has also been changing. In the fifties, market loans with maturity period of less than ten years were popular. But to secure funds for investment in long-term projects for capital formation, bonds with a longer maturity period were floated from 1959 onwards.<sup>15</sup> The maximum maturity period of the bonds was raised to twenty years

<sup>14</sup> State bonds are not as liquid as the Central Government bonds for various economic reasons – volumes (issues and outstanding), performance of the economy, past performance in debt servicing.

<sup>15</sup> The large developmental outlay envisaged in the Second Five Year Plan necessitated increased borrowing operations of the Government. The technique of market borrowing was reoriented then, to cater to a wider range of investment preferences and instead of a single medium dated loan as was usually

from 1959-60 and to thirty years from 1969-70. In 1986-87, on the basis of the recommendations of the Monetary Committee Report,<sup>16</sup> the maximum maturity period was reduced to twenty years. The maximum maturity of market loans was further reduced to 10 years in 1992, for both the Central and the State bonds, when the financial sector reforms were initiated and the auction system was introduced. Initially, large amounts of short-term bonds (0-5 years) were issued but with the development of confidence in the market, maturity was extended (Alesina, Prati and Tabellini, 1990; Calvo and Guidotti, 1990). Given market demand, only for the bonds issued by the Central Government, 20 year loans were reintroduced in 1998, now through auctions, and 30 year bonds in 2002, though in a limited amount, especially for the insurance sector (Table - 7).<sup>17</sup> The objective of varying the maturity basket is to have a manageable maturity in every issue and to avoid refinancing risk in any specific year (Giavazzi and Pagano, 1990).

**Table - 7: Maturity Pattern of Outstanding Market Loans**

Year (End-Mar)	(per cent)				
	0-5 years	5-10 years	Over 10 years	Non-Terminals	Total
1	2	3	4	5	6
1958*	35.9	32.6	20.0	11.5	100.0
1968	44.0	17.0	33.0	6.0	100.0
1978	17.9	28.0	52.3	2.2	100.0
1982	18.4	17.9	62.5	1.2	100.0
1990	10.6	9.9	78.9	0.1	100.0
2004	25.6	35.8	38.6	0.0	100.0

*Notes:* 1) Government Securities for over 15 years for 1978 and 1982 includes non-terminable for the State Governments.

2) Total for 1990 includes the investments of provident funds of scheduled and non-scheduled commercial banks in case of which maturity pattern is not available, therefore the maturity-wise break-up will not add up to the total.

3) \* End-December.

**Source:** Data from 1958 to 1990 from Survey on Ownership Pattern of Government Debt, RBI.

the case in the earlier periods, multiple loans with varying maturity patterns and coupon rates were floated.

<sup>16</sup>Report of the Committee to Review the Working of the Monetary System (1985).

<sup>17</sup>The data in Table 7, 9 and 11 are collected from the Survey on Ownership Pattern of Government Securities, which was initiated by RBI in 1957. These Surveys were conducted on an annual basis till

**1.2.1.1.3: Coupon Rates on Market Loans:** The coupon rates on government securities were fixed by the government till 1992, when the auction system was introduced for the securities issued by the Central Government. The coupon rates rose in the initial years of auctions, though the maximum maturity period was reduced to ten years from twenty years for the Government loans. The coupon rates have been declining since 1995-96, while the weighted average maturity of loans raised during the year have increased from 5.5 years in 1995-96 to 14.9 years in 2003-04 for the Central Government (Table -8).

**Table - 8: Coupon Rates on Market Loans**

(per cent)					
Year	Central Government Securities Range	Central Government Securities Weighted Average	Inflation Rate (Wholesale Price Index)	State Government Securities Range	State Government Securities Weighted Average
1	2	3	4	5	6
1980-81	5.98-7.50	7.03	17.7	6.75	6.75
1990-91	10.50-11.50	11.41	10.3	11.50	11.50
1991-92	10.50-12.50	11.78	13.7	11.50-12.00	11.84
1992-93	12.00-12.75	12.46	10.1	13.00	13.00
1993-94	12.00-13.40	12.63	8.4	13.50	13.50
1994-95	11.00-12.71	11.90	12.5	12.50	12.50
1995-96	13.25-14.00	13.75	8.1	14.00	14.00
1996-97	13.40-13.85	13.69	4.6	13.75-13.85	13.82
1997-98	10.85-13.05	12.01	4.4	12.30-13.05	12.82
1998-99	11.10-12.60	11.86	5.9	12.15-12.50	12.35
1999-00	10.73-12.45	11.77	3.3	11.00-12.25	11.89
2000-01	9.47-11.70	10.95	7.2	10.50-12.00	10.99
2001-02	6.98-11.00	9.44	3.6	7.80-10.53	9.20
2002-03	6.65-8.62	7.34	3.4	6.67-8.00	7.49
2003-04	4.62-6.35	5.71	5.40	5.78-6.40	6.13

**Source:** Reserve Bank of India.

**1.2.1.1.4: Ownership Pattern of Market loans:** The major investors in rupee loans are the Reserve Bank,<sup>18</sup> banks, insurance companies and provident funds (Table - 9). Many of these institutions are nationalised and help transfer private savings to the

1971 but since then, have been placed on an ad hoc basis. The last such Survey was conducted for the period 1990. The Survey provides detailed data, not available elsewhere.

<sup>18</sup>The Reserve Bank of India holds securities on its own account, as also for the purpose of conducting open market operations. RBI traditionally avoids subscribing to the market loans floated by the State Governments. Though in the fifties it did hold State Government loans, it has not held these since then.

government. These generally constitute the captive market.<sup>19</sup> The existence of the captive market helps in the successful operation of fiscal and monetary policy, as it constitutes a stable source of demand for Government securities.<sup>20</sup> But at the same time it restricts the development of the government securities market and thereby the operational efficiency of the monetary policy.

**Table - 9: Ownership Pattern of Outstanding Market Loans**

Year (End- Mar)	Government	RBI (Own account)	Banks	Insurance	Provident Funds	Total
1	2	3	4	5	6	7
1958*	10.1	13.7	28.6	13.5	6.0	100.0
1968	7.8	30.1	23.5	14.0	16.9	100.0
1978	1.8	18.5	41.7	16.1	19.5	100.0
1982	1.0	23.3	44.1	13.8	16.3	100.0
1990	0.4	18.7	57.9	14.4	2.7	100.0
2003	NA	5.5	58.6	19.4\$	2.7&	100.0

**Note:** \* End-December. \$ - LIC, which generally accounts for more than ninety percent of the investment. & - Employees PF, which is the major holder.

**Source:** Reserve Bank of India.

In view of the market related rates of return on government securities, the ownership pattern is changing and the share of RBI is generally declining, though the share of the RBI varies sharply during the year as it provides initial support to the floatation.<sup>21</sup> The share of commercial banks has more than doubled over the period despite the relaxation in statutory stipulations, mainly due to the cautious approach adopted by the management of the banks in the face of rising concerns of NPAs (Banerjee, Cole and Duflo, 2003). The sharp decline in the share of provident funds in 1990 is due to a

<sup>19</sup>Captive market refers to the concept under which the specified financial institutions have to statutorily subscribe to government loans and have to maintain a minimum balance of these in their portfolios. This market consists of Commercial Banks, Provident Funds, Insurance companies, Industrial Finance Corporation, State Finance Corporation, and Reserve Bank of India.

<sup>20</sup>Tobin (1963) observes, "...costs could be lowered, without sacrifice of monetary effect, by enlarging the captive market for government debt through a secondary reserve requirement on Banks, and through reserve requirements on other financial intermediaries. These requirements would also improve the efficiency of monetary control" (p.211).

<sup>21</sup>"In India where the money market is characterised by a sharply defined seasonal pattern, it is not convenient for the Government to enter the market with new loans time and again or to keep loans on tap indefinitely. It becomes necessary, therefore for the Reserve Bank to acquire a reasonable stock of Government securities of varying maturities for meeting the requirements of the investors all the year round. The Reserve Bank may be compared to a wholesale merchant who acquires a large stock at the time of harvest" (RBI (1960), p. 4).

change in statutory requirements from 1986.<sup>22</sup> Since 2001, efforts have been made to encourage retail investors to invest in government securities, though with limited success (discussed in Section 3). However, it is generally observed in the less developed countries, unlike the developed countries, that non-bank investors tend to hold only a small part of their assets in liquid form.<sup>23</sup> The changing trend in the ownership pattern is presented in Table - 10, which list the major investors separately for the Central and State Government securities, annually, for the recent period.

**Table – 10A: Ownership Pattern of State Government Loans – Major Investors**  
(per cent)

Major Investors	1991	1993	1994	1996	1997	1999	2000	2003
1	2	3	4	5	6	7	8	9
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Commercial								
Banks	78.6	72.7	74.8	67.7	66.3	62.4	61.9	60.0
LIC	6.9	9.0	11.1	12.2	13.5	16.2	16.1	19.5
EPF	2.6	2.0	2.0	2.2	2.9	3.9	4.4	5.9
Others	11.9	16.3	12.1	17.9	17.3	17.5	17.6	14.6

**Table-10B: Ownership Pattern of Central Government Loans –Major Investors**  
(per cent)

Major Investors	1991	1993	1994	1996	1997	1999	2000	2003
1	2	3	4	5	6	7	8	9
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
RBI	24.8	10.6	3.0	9.0	3.5	10.9	8.3	6.6
Commercial								
Banks	55.1	64.6	71.9	64.3	67.5	58.9	60.7	58.5
LIC	13.5	16.3	16.9	17.8	19.8	18.2	18.4	19.3
UTI	0.0	0.0	5.5	3.7	1.2	0.1	0.2	0.5
NABARD	0.0	2.2	1.5	0.8	0.7	0.4	0.3	0.2
EPF	0.9	0.8	0.6	0.6	1.0	1.4	1.6	2.0
Others	5.7	5.5	0.6	3.8	6.3	10.1	10.5	12.9

LIC – Life Insurance Corporation; UTI – Unit Trust of India; NABARD – National Bank for Agriculture and Rural Development; EPF – Employees Provident Fund.

**Source:** Reserve Bank of India.

The ownership-maturity pattern of government debt, available only for the pre-reform period and therefore of limited use, reveals that insurance companies and banks have changed their preferences from short and medium term loans to long term loans, with

<sup>22</sup> The important component of Provident Funds (PF) is Employees PF for which data reveals a rising trend – Refer Tables 10A and 10B.



better yields in a stable interest rate market (Table - 11). Provident Funds have followed a contrary approach to that by the insurance companies while the Reserve Bank, due to its role as a market maker, presents a mixed situation.

**Table - 11: Ownership and Maturity Pattern of Market Loans \***

Year (End- March)	Government	RBI (Own Account)	Insurance	Provident Funds	Banks	(per cent)
						Total
1	2	3	4	5	6	7
0 - 5 years						
1958*	45.0	36.0	21.0	9.0	47.0	36.0
1968	49.0	41.0	20.0	9.0	75.0	44.0
1978	28.0	39.0	6.0	18.0	13.0	17.0
1982	25.0	26.0	13.0	35.0	14.0	18.0
1990	35.0	38.0	0.0	30.0	5.0	11.0
5 - 10 years						
1958*	39	31.0	33.0	25.0	40.0	33.0
1968	21	18.0	27.0	13.0	12.0	17.0
1978	28.0	38.0	21.0	10.0	32.0	28.0
1982	24.0	29.0	4.0	15.0	18.0	18.0
1990	18.0	15.0	2.0	10.0	11.0	10.0
10 - 15 years						
1958*	9.0	6.0	24.0	34.0	11.0	13.0
1968	23.0	15.0	14.0	14.0	10.0	14.0
1978	8.0	9.0	5.0	15.0	4.0	7.0
1982	6.0	9.0	9.0	8.0	18.0	13.0
1990	12.0	22.0	8.0	23.0	14.0	15.0
Over 15 years						
1958*	3.0	9.0	8.0	24.0	1.0	7.0
1968	3.0	21.0	32.0	62.0	3.0	19.0
1978	31.0	10.0	66.0	56.0	51.0	46.0
1982	39.0	34.0	73.0	41.0	50.0	50.0
1990	35.0	25.0	90.0	37.0	70.0	64.0
Non-terminable						
1958*	5.0	19.0	13.0	8.0	1.0	11.0
1968	4.0	5.0	6.0	2.0	0.0	6.0
1978	5.0	4.0	2.0	1.0	0.0	2.0
1982	6.0	2.0	1.0	1.0	0.0	1.0
1990	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

\* Data for the period after 1990 is not published.

**Source:** Data from 1958 to 1990 from Survey on Ownership Pattern of Government Debt, RBI.

<sup>23</sup>Sreekantaradhya (1972), p.124 and Seshadri (1976), p.633.

### 1.2.1.2: Treasury Bills

Treasury bills are the most short-term issues of the Central Government.<sup>24</sup> In India, 91-day Treasury bills have been in the market since 1917,<sup>25</sup> while the 182-day Treasury bills were introduced in November 1986 (till May 14, 2001), the 364-day Treasury bills in April 1992 and 14 day Treasury Bills in June 1997 (till May 14, 2001). After having experimented with different maturities, and considering the investor's choice, at present 91 and 364 day Treasury bills are offered in weekly auctions and 364-day in fortnightly auctions, respectively. Since April 2001, the annual calendar for auctions with indicative amounts is announced, while the final amount is announced about a week in advance of the date of auction.

The share of Treasury bills in the domestic debt increased from 10.1 per cent in 1952 to 18.3-23.8 per cent during 1973-81, mainly due to the rise in *ad hoc* Treasury bills, issued to the RBI to accommodate immediate requirements of the Central Government (explained in next sub-section). However, the share of Treasury bills has since declined due to ongoing conversion of *ad hoc* Treasury bills into special securities issued to RBI during 1981 to 1997 and then stoppage of such issuances from March 31, 1997. The total amount of Treasury bills outstanding rose from Rs. 3.1 billion in 1952 to Rs. 647.6 billion in 1997, and then declined to 386.1 billion in 2004, due to conversion into special securities issued to RBI in April 1998 - recording an annual average growth rate of 15.8 percent over the longer period.

1.2.1.2.1: 91-day Treasury bills: In India, 91-day Treasury bills are of two kinds - (a) *ad hoc* Treasury bills, and (b) Normal Treasury bills. The *ad hoc* Treasury bills were issued by the Central Government till March 31, 1997 in favour of the Reserve Bank of India for the purpose of replenishing the cash balances maintained by it with the Reserve Bank.<sup>26</sup> The normal Treasury bills were sold in auctions or on tap, and were

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<sup>24</sup>Treasury bills on behalf of the State Governments were sold infrequently in the past. Since 1950, no Treasury bills have been issued by the State Governments (RBI (1970), p.26).

<sup>25</sup>Barman (1978), p.81.

<sup>26</sup>The origin of *ad hoc* Treasury bills dates back to 1940-41 when the sterling debt had to be repatriated. As the sterling used for repatriation of the Government of India debt belonged to the Reserve Bank, arrangements had to be made to provide the Bank with alternative eligible rupee assets.

offered through weekly auctions until July 1965, after which they were made available on tap from the Reserve Bank at a fixed discount rate. The auction system of placing Treasury bills in the market was re-introduced in January 1993.

In July 1965, when the auction system was discontinued, the discount rate was fixed at 3.5 per cent per annum on 91 day Treasury bills – Tap or *ad hoc*. This was raised in phases to 4.6 per cent per annum in April 1974 where it continued till 1997, when the *ad hocs* were converted into special securities to RBI. The discount rate on Treasury bills was generally lower than that prevalent in the market and therefore, these bills were generally held within the RBI. The low discount rate on 91-day Treasury bills on tap and the resultant concentration of holdings with the Reserve Bank restricted the operation of monetary policy, raised the reserve money and inhibited the development of the secondary market in these bills. In contrast, the discount rate on 91-day Treasury bills offered in an auction since January 1993 has varied between 9.8 per cent in January 1993 to 12.9 per cent in July 1995 and then a secular decline to 4.2 per cent in November 2003 - the rates being market related. The ownership pattern has also undergone a change with the introduction of the auction system for Treasury bills (Table - 12). The auction bills are popular with the public with the share of RBI declining in the recent period (Table – 13).

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The rupee finance was provided in part by the issue of *ad hoc* Treasury bills. The *ad hocs* were retired when the Government's dated securities loan programme was undertaken. The use of *ad hocs*, resulting in automatic creation when the Central Government's cash balance fell below the minimum stipulated amount, has been in vogue since 1954-55 (RBI (1994b), pp. 4-5). The amount of these bills was restricted under an agreement between the Central Government and the RBI (RBI (1995), pp. VIII-3) in 1994. The issue of these bills was discontinued from April 1997.

**Table - 12: Ownership Pattern of 91-day Treasury bills  
(inclusive of *ad hoc*, Tap, Auction)**

Year (end of March)	RBI	Banks	State Government*	Others	(per cent)
					Total
1	2	3	4	5	6
1952	85.4	..	14.6	0.0	100.0
1960	78.6	..	19.2	2.2	100.0
1970	78.7	..	17.4	3.9	100.0
1980	90.3	0.6	8.2	0.9	100.0
1990	93.6	0.0	6.0	0.4	100.0
1995	78.1	0.1	20.4	1.5	100.0
2000	19.0	36.6	0.0	44.4	100.0
2004	0.0	65.4	9.9	24.7	100.0

\*- State and other Approved bodies till 1970. .. - Not Available.

The Amount outstanding shown against different holders from 1981 is net of bills rediscounted with RBI.

*Source: Reserve Bank of India.*

**Table - 13: Ownership Pattern of 91-day Auction Treasury bills**

Year (end March)	RBI	Banks	State Governments	Others	(per cent)	
					Total	
1	2	3	4	5	6	7
1993	86.6	11.7	0.0	1.7	0.0	100.0
1994	12.2	69.0	0.0	18.8	0.0	100.0
1995	8.5	4.7	77.2	9.6	0.0	100.0
1996	49.4	6.3	35.2	9.2	0.0	100.0
1997	25.8	41.5	22.1	10.6	0.0	100.0
1998	39.2	1.8	33.1	25.9	19.9	100.0
1999	14.9	55.1	0.0	29.9	13.3	100.0
2000	18.9	36.6	0.0	44.4	14.5	100.0
2001	3.9	50.5	0.0	45.6	36.7	100.0
2002	3.4	50.3	9.9	36.4	28.5	100.0
2003	0.0	73.8	9.2	17.0	8.0	100.0
2004	0.0	65.4	9.9	24.7	0.6	100.0

*Source: Reserve Bank of India.*

In view of the need to meet the cash requirements of the Central government and in case the notified amount is not absorbed by the market or the bidding pattern reflects disturbed market conditions/expectations, then RBI supports the auction (Table – 14).

**Table – 14: Initial Support in the Primary Market of 91-day Treasury bills**  
(per cent)

Year	Notified Amount (Rs.Billion)	Devolvement (per cent to Notified Amount)	
		Reserve Bank of India	Primary Dealers
1	2	3	4
1992-93	13.5	85.0	0.0
1993-94	163.5	5.1	0.0
1994-95	120.0	20.0	0.0
1995-96	240.0	32.7	0.0
1996-97	252.0	13.4	2.1
1997-98	132.0	7.9	5.6
1998-99	107.5	28.1	10.8
1999-00	53.0	30.1	1.1
2000-01	52.0	15.1	0.0
2001-02	122.0	0.0	0.0
2002-03	165.0	0.0	0.0
2003-04	345.0	0.0	0.0

*Source: Reserve Bank of India.*

1.2.1.2.2: 182-day/364-day Treasury bills: The 182-day Treasury bills were issued in auctions from November 1986 to April 16, 1992 and then from May 26, 1999 to May 14, 2001, exclusive for the public.<sup>27</sup> This instrument was devised to provide an alternative avenue for short-term investments and facilitate the development of a secondary market. The amounts of issues were not announced or notified and RBI did not participate in these auctions. The discount rate on these bills ranged between 6.8-9.6 per cent during 1986-92 and 8.33 -10.42 per cent during 1999-2001. This instrument was initially popular in the market and accounted for 31.1 per cent of total outstanding Treasury bills in 1992 and 7.2 per cent in 2001.

The success of the 182-day bills led to its replacement by the 364-day Treasury bills in April 28, 1992 with a view to provide financial instruments with varying short-term maturities to cater to the needs of different investors. The amount of issue was not announced or notified and RBI did not participate in these auctions till April 1998. The discount rate on these bills has varied, depending on the market conditions, between 11.4 percent in April 1992 to 13.2 per cent in July 1995 and then declined to

4.4 per cent in October 2003 – is in the range of 5.5 - 5.8 per cent, at present. The outstanding amount of 364-day Treasury bills continues to be substantial – accounting for 78.9 per cent in 1995 and 59.6 per cent in 2004. The practise of announcing the notified amount from April 1998, to facilitate cash management by the Government, was the main reason for RBI to begin participating in the auctions – the devolvement in the initial period was high (Table – 15).

**Table - 15: Initial Support in the Primary Market of 364-day Treasury bills**  
(per cent)

Year	Notified Amount (Rs. Billion)	Devolvement (per cent to Notified Amount)	
		Reserve Bank of India	Primary dealers
1	2	3	4
1998-99	102	16.4	5.1
1999-00	130	17.4	0.0
2000-01	150	12.2	0.0
2001-02	195	0.0	0.0
2002-03	260	0.0	0.0
2003-04	270	0.0	0.0

*Source: Reserve Bank of India.*

#### 1.2.2.1.3: Special Securities Issued to RBI

Special securities issued to RBI mainly represent the funding of *ad hoc* Treasury bills (91-day) into perpetual securities only to be held in RBI.<sup>28</sup> The outstanding amount of such funding increased from Rs. 5.9 billion in 1981 to Rs. 720.5 billion in 1992 and further to Rs.1,228.6 billion in 1998. The share of these securities in domestic debt increased from 1.1 per cent in 1981 to 21.1 per cent in 1991 and 15.0 per cent in 1998.<sup>29</sup> These securities, in conversion from the Treasury bills, earn interest at the rate of 4.6 per cent per annum, similar to the discount rate on the *ad hoc* bills that were converted / funded, until they are converted into Government of India (GoI) dated securities. The RBI has been converting these securities into dated securities of various maturities at market related rates of coupon (based on secondary market yield of a bond with similar maturity) to be used for open market

<sup>27</sup>Other than the Government and RBI.

<sup>28</sup>Refers to conversion of 91-day Treasury bills into long-term government securities. These are different from those referred to earlier in sub-Section 1.2.1.1. The difference is in the fact, that those could be subscribed by the Public while in the present case, these were issued specifically to RBI.

<sup>29</sup>Also includes a marginal amount of securities issued to RBI against compulsory deposits held in RBI.

operations - Rs.200 billion were converted in 1997-98, followed by Rs. 400 billion in 2002-03 and Rs.618 billion in 2003-04.

#### 1.2.1.4: Special Floating and Other Loans

Special Floating and other loans refer to non-negotiable, non-interest bearing rupee securities issued to International Financial Institutions to meet certain international obligations.<sup>30</sup> It has recorded an annual average growth rate of 10.6 percent over the period 1952-04. The growth is much more marked since 1981 but its share has generally been declining.<sup>31</sup>

#### 1.2.1.5: Ways and Means Advances

The Reserve Bank of India provides Ways and Means Advances (WMA) to the Government to tide over temporary financial imbalances. The Central Government did not resort to this instrument during 1943 to 1997. Since 1997, the RBI and the Government, under an agreement signed in March 1997, annually agree on a fixed amount of financial resources to be provided by the RBI at the bank rate to the Central Government for a short period. If the requirement exceeds the agreed amount, then the RBI provides an overdraft facility for a maximum of ten consecutive working days, but at a penal rate of interest, mutually agreed.

The State Governments<sup>32</sup> have been availing of this facility regularly since 1937, to tide over any temporary mismatch between the cash flow of receipts and expenditure. The WMA to the State Governments are of two type's viz., Normal and Special. The special WMA is provided against the pledge of Government of India securities (at a concessional rate) while the normal WMA is provided without such cover (at bank rate). The limits for these two types of advances vary for individual State Governments

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<sup>30</sup>They are issued in making subscriptions to the International Financial Institutions like International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD), and International Development Association (IDA). Special rupee securities are also issued in making contributions towards the share capital of Asian Development Bank (ADB). They are also issued whenever the subscription quotas or the share capital in these are revised.

<sup>31</sup>This increase in Special Floating Loans was necessitated under the 'Maintenance of value' provision of the Funds Article of Agreement, under which the value of the currencies of members held in the General Resources Account is to be maintained in terms of Special Drawing Rights.

<sup>32</sup>Twenty-six State Governments (except Jammu and Kashmir and Sikkim) have entered into a separate agreement with the RBI to maintain a minimum cash balance with the Bank in order to facilitate its financial transactions.

based on a formula and are revised periodically by RBI in consultation with the State Governments.<sup>33</sup> However, in certain special cases, where the concerned State Governments do not have adequate securities to offer to avail special WMA, the Reserve Bank may also provide an overdraft, for a maximum of fourteen working days, but at a penal rate of interest (mutually agreed by all the State Governments). The share of WMA in domestic debt is marginal during the period under review.<sup>34</sup>

#### 1.2.2.6: Loans from Banks and Other Institutions

Loans from banks and other institutions refer to the borrowings made only by the state Governments. The State Governments are authorised to take advances from banks to purchase food grains and fertilisers for public distribution.<sup>35</sup> From the other term lending institutions, the State Governments take loans to meet such capital expenditures as construction of bridges, housing quarters, water pipelines, etc. It constituted a marginal component of domestic debt till 1999, when its share was less than 1 per cent of the total domestic debt. Since 2000, its share has been rising as the State Governments have been constrained by RBI to extend guarantees to banks and financial institutions (discussed further in section – 2), which in turn, due to lack of demand for credit in the economy, liberally lend to the State Governments.

#### **1.2.2.2: Small Savings**

Small Savings, basically postal savings, as a source of Government borrowing are of special significance as they tap the savings of the public directly without any financial intermediation. Hence, the Government of India has been pursuing a policy of promoting small savings since the beginning of the planning period. Historically, the

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<sup>33</sup> The formula has been in operation since 1999. Reserve Bank of India, w.e.f. April 1, 2004, revised the limits for normal and special WMA. The limit of normal WMA has been revised from Rs.71.7 billion (fixed from March 3, 2003) to Rs.81.4 billion.

<sup>34</sup> Includes cash credit from State Bank of India and other commercial banks till 1967-68, which have since been combined with loans from banks and other institutions. The amount of such cash credit was negligible.

<sup>35</sup> The data on loans from other institutions are available from 1957. This component refers to loans from State Bank of India and other banks as also from National Rural Credit (Long-term operations) Fund of National Bank for Agriculture and Rural Development (NABARD), National Co-operative Development Corporation, Life Insurance Corporation of India and Khadi and Village Industries commission, etc. Loans from Banks were included in this component from 1968-69. Till then these constituted a part of WMA.



scheme was started in 1833 and reformulated in 1948.<sup>36</sup> The amount mobilised under small savings was shared between the central and state governments but since April 1, 2002 small savings collections are completely appropriated by the State Governments.<sup>37</sup>

The high rates of interest offered along with numerous tax concessions have contributed to the popularity of the small savings. The outstanding amount of net small savings increased from Rs. 3.7 billion in 1952 to Rs. 3,618.4 billion in 2004 - recording an annual average growth rate of 14.3 per cent over the period. The increase was more marked for 1981-90 and 2001-04, which recorded an annual average growth rate of 19.9 per cent and 18.7 per cent, respectively, because of lack of activity in the capital market and the low interest rates being offered by the commercial banks on deposits. The share of small savings to domestic debt has generally been in the range of 12-14 per cent since 1952 but rose to 16.5 per cent in 1986 due to the problems in the capital market in India in 1985. Since 1999, the share has been rising again and has increased to 17.5 per cent in 2004, again due to problems in the capital market and low deposit rates offered by commercial banks. Small savings as a percentage of GDP rose from 3.5 per cent in 1952 to 13.1 per cent in 2004.

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<sup>36</sup>Small saving scheme was started in India in 1833 in the Presidency Banks. In 1870, to popularise the scheme, Savings Banks were opened in select district treasuries. It was from 1882 that the Government considered to extend it to the Post Offices and by 1896, the Post Office System emerged as the sole Savings Bank agency mobilising small savings. Initially, small savings collections were appropriated by the State Governments. However, since World War II, a process of centralisation was initiated that was completed by 1948. To encourage the State Governments to co-operate with the Central Government, a scheme of sharing the collections in the form of long-term loans was formulated in October 1952. In the initial stages, loans against small savings were linked with the market borrowing of the State Governments but in 1958 this link was discontinued. In the arrangements that prevailed till March 31, 2002, the collections are made by the Central Government and a certain agreed portion was distributed to the State Governments in the proportion which was mutually determined. Since April 1, 2002 all collections under small savings are extended to the States. In addition since April 1, 1999 National savings Fund has been constituted and all collections and disbursements are accounted in the Fund.

Gopalakrishnan (1989), pp. 64-65.

<sup>37</sup>According to the arrangements that prevailed on March 31, 2002, four fifth of the net small savings collections in each State were passed on to them in the form of 25 year loans. Besides, as an incentive for mobilising collections, for every 5 per cent in excess of the national average of net to gross collections, the states are entitled to receive 2.5 per cent over and above their normal share of net collections.

Small savings instruments comprise Post Office Savings Deposits and Certificates<sup>38</sup> (Table - 16). The government has regularly been effecting diversification in the instruments, considering the need for funds and market requirements.<sup>39</sup> The data on ownership pattern is not available, but based on a few surveys, it is derived that apart from households, some institutions are also investing in them – schemes are popular both in the rural and urban areas and amongst professionals (due to tax concessions) and non-professionals (due to easy reach – network of over 1,54,000 post offices of which 1,37,950 are located in rural areas as at end-march 2001).<sup>40</sup> Amongst the Deposits, time deposits (ranging between 1 and 5 years) and savings bank deposits are popular while amongst the Certificates (ranging between 3 and 6 years), the most popular being the Kisan Vikas Patras (5 year maturity) followed by the series of 6-year National Savings Certificates.

**Table - 16: Components of Small Savings\***

Year (End-March)	Deposits (per cent to Total)	Certificates (per cent to Total)	Total Small Savings (Rs. Billion)
1	2	3	4
1952	53.9	46.1	3.7
1960	44.7	55.3	8.7
1970	49.2	50.8	20.2
1980	80.2	19.8	68.6
1990	34.6	65.4	419.2
1995	34.1	65.9	817.1
2000	33.2	66.8	1,828.9
2004	51.9	48.1	3,627.9

\* PPF has been excluded from the calculations.

**Sources:** Government of India and Reserve Bank of India.

Small savings are a very expensive source of funds for the Government, because of high rates of interest<sup>41</sup> (last administered interest rate structure still prevailing), fiscal concessions and substantial management costs, though the scheme is operated from the post office network. The Committee set up in 2001 (Chairman: Y.V.Reddy; RBI,

<sup>38</sup> Certificates, distinct from deposits, are characterised by fixed lock-in period of funds.

<sup>39</sup> At Present, the important ones amongst these are 1-5 years Time Deposits and Recurring Time Deposits, National Savings Scheme, Post Office Monthly Income Scheme, National Savings Certificates, Kisan Vikas Patras, Social Security Certificates.

<sup>40</sup> Chelliah (1991), p.17; RBI (2001).

<sup>41</sup> To illustrate, many post office schemes were offering rates above 8.00 per cent during 2003-04 when inflation was 5.4 per cent and government securities between 5-10 years in the secondary market were providing a yield in the range of 4.89 to 5.91 per cent.

2001), to rationalise the interest rate structure on the small savings, recommended that fiscal concessions should be withdrawn and the rate of interest should be annually fixed, based on the annualised returns on government securities of comparable maturity for certificates and relative rates in money market for other short term instruments. The main recommendations of the Committee are being implemented in stages – the rates on major saving instruments are now being fixed on an annual basis, beginning from April 2002.

The Ministry of Finance at the Central Government and the Department of Finance at the State level manage small savings. The Directorate of small savings in each state operationalizes the scheme. To provide transparency to the operations of the small savings scheme, National Small Savings Fund (NSSF) was set up in April 1999 under the Ministry of Finance, the accounts of which form a part of union Budget, wherein all items of receipts and expenditure on small savings are placed before the Parliament.

### **1.2.3: Provident Funds and Other Accounts**

Provident funds and other accounts that are mainly social security funds for the employees in the organised sector of the economy, increased from Rs. 1.9 billion to Rs. 4,200.3 billion during 1952-04, recording an annual average growth rate of 16.6 per cent. The share of provident funds and other accounts in the domestic debt consistently increased from 6.0 per cent in 1952 to 26.1 per cent in 1998 but since then has been consistently declining to 20.3 per cent in 2004. Provident funds and other accounts, as a per cent of GDP, also increased from 1.8 per cent in 1952 to 15.2 per cent in 2004. The share of State Provident Funds (SPF) which exclusively pertains to government employees,<sup>42</sup> has declined sharply in favour of public provident funds and other accounts. The outstanding amount increased from Rs. 1.6 billion in 1952 to Rs. 1,559.5 billion in 2004. The Public Provident Fund (PPF) scheme, which was

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<sup>42</sup>State Provident Funds consist of Civil, Defence, Railways and Other Provident Funds. The Civil Provident Funds consist of General P.F; contributory PF's; ICS P.F's and All India Services P.F. The Defence Provident Funds include Defence Savings P.F; Defence Service Officers and Personnel P.F and

introduced in 1968 for the benefit of general public to attract voluntary savings, is operated through select branches of public sector banks and post offices. The scheme has not been very popular, with the outstanding amount increasing from Rs 0.1 billion in 1973 to 734.5 billion in 2004. The Other Accounts refer to the funds in Trust and Endowment Accounts, Insurance and Pension Funds and Special Deposits.<sup>43</sup> The outstanding amount under this group has increased substantially from Rs. 0.3 billion to Rs. 1,906.3 billion over 1952-04 mainly due to the special deposits by Provident, Gratuity and Superannuation funds (SDPGSF), reflecting an increase in the organised segment of the private sector<sup>44</sup> (Table - 17).

The Ministry of Labour and the Ministry of Finance, Government of India supervise SPF, SDPGSF, except PPF. The contributions and payments of the government employees under SPF are a part of the annual budget of the government. The interest rate for the SPF and SDPGSF is fixed by the Central Government that serves as a benchmark for all provident funds in the economy. The Central Government also prescribes a specific investment pattern to be followed by SDPGSF and other different Provident Funds spread across the country. The Provident Fund Commissioner, operating at the Central and the State level regulates different Provident Funds. The collections under PPF scheme are merged with small savings and managed by the Ministry of Finance under the NSSF.

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Indian Ordinance Factories Workmen P.F. The other Provident Funds refer to workmen's contributory P.F; Contributory Provident Pension Fund and other Miscellaneous P.F's.

<sup>43</sup>The Trust and Endowment Funds includes Hyderabad Endowment Fund. The Insurance and Pension Funds includes Postal and Life Annuity Fund; Family Pension Fund; Other Insurance and Pension Funds; Central Government Employees Group Insurance Scheme; Union Territories Employees Group Insurance Schemes; etc. Special Deposits and other Accounts comprise of Special Securities issued to Rural Electrification Corporation; Special Deposits by Provident Superannuation and Gratuity Funds (SDPSGF); Income-Tax Annuity Deposits; Compulsory Deposits; deposits by Unit Trust of India, Life Insurance Corporation, General Insurance Corporation and its subsidiaries; Deposits by Industrial Development Bank of India, National Bank for Agriculture and Rural Development, Special securities to Nationalised Banks and National Deposit Scheme.

<sup>44</sup> The SDPGSF was started in 1975 for the employees of the private sector. The outstanding amount has increased from Rs.0.1 billion in 1976 to Rs.1,201.3 billion in 2004.

**Table - 17: Total Provident Funds and Other Accounts**

Year (End- March)	State Provident Funds (% to TPFOA)	Public Provident Funds (% to TPFOA)	Other Accounts (% to TPFOA) of which		Total Provident Funds and Other Accounts (TPFOA) (Rs. Billion)
			Total	SDPGSF	
1	2	3	4	5	6
1952	85.7	0.0	14.3	0.0	1.9
1961	58.8	0.0	41.2	0.0	6.8
1971	57.4	0.2	42.5	0.0	22.9
1981	55.0	2.2	42.8	24.5	84.4
1991	31.5	3.9	64.7	41.4	727.1
2001	37.0	13.0	50.0	32.5	3,192.5
2004	37.1	17.5	45.4	28.6	4,200.3

SDPGSF - Special Deposits by Provident, Gratuity and Superannuation Funds.

*Source: Government of India.*

#### 1.2.4: Reserve Funds and Deposits

Reserve Funds and Deposits, comprising mainly depreciation and reserve funds of government departments and deposits of local funds, departmental and judicial deposits, and civil deposits, are of two types – interest-bearing and non-interest bearing.<sup>45</sup> The reserve funds and deposits rose from Rs. 4.4 billion in 1952 to Rs. 871.5 billion in 2004. Their share in domestic debt, however, declined from 14.1 per cent in 1952 to 5.0 per cent in 1995 and since then has ranged between 4-5 per cent. The shares of interest-bearing<sup>46</sup> and non-interest bearing<sup>47</sup> components have generally

<sup>45</sup> Reserve Funds and deposits came to be included as a part of total internal debt of the Government of India in 1965-66. The figures for the purpose of this study have been computed from Finance Accounts, Government of India, for the period 1952 to 1965.

<sup>46</sup> The Reserve Funds bearing interest are - Depreciation Funds of Railways; Commercial and Non-commercial departmental undertakings; Revenue Reserve Fund; and Development Funds of Railways and Post and Telegraphs; General and other Reserve Funds like Railway Pension Fund; Staff benefit funds; Railways Accident Compensation Fund; Safety and Passenger Amenities Fund; Contingency Reserve Fund (electricity) and General Insurance Fund. The Deposits bearing Interest are - Security deposits; Railway deposits; National Defence Fund; deposits of shipping development fund; deposits of government companies and corporations; own your telephone exchange deposits; telephone application deposits; etc.

<sup>47</sup> The Non-Interest bearing Reserve Funds include Famine Relief Fund; Central Road Fund; Development Funds for Education, Medical and Public Health, Agriculture and Industry purposes; Mining areas development Funds; Special Development Funds; Railway Reserve Funds; Railway Safety Works Funds; Food grains Reserve Funds; etc. The non-interest bearing deposits are - Revenue Deposits; Securities deposits; Court deposits; deposits of police funds; Forest deposits; deposits under Central and State Acts,

remained the same, with the non-interest bearing component accounting for more than half of the total outstanding. Reserve Funds and Deposits are controversial in their inclusion as a component of domestic debt, especially while analysing its economic implications.<sup>48</sup> The respective Departments and Ministries of the Government, both at the Central and State level, manage these funds separately.

### **1.3: External debt**

The share of external debt in total public debt and as percent of GDP has consistently been declining due to the increasing reliance on domestic borrowings (Table – 18). The share of government debt and short-term debt has declined, while the share of ‘others’, mainly deposits with maturity period of more than a year have increased substantially. In India, external debt can only be incurred by the Central Government and not by the State Governments. Therefore, management of external debt is undertaken in different departments of the MOF, Government of India – Department of Economic Affairs acts as the front office, External Debt Management Unit works as the middle office and Office of Controller of Aid Accounts and Audit acts as the back office. The RBI also acts as the front office and maintains close coordination with the respective offices in MOF.

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Liquidation accounts companies, provident societies; deposits of educational institutions; unclaimed deposits of General Provident Funds, Provident Funds, Savings Banks, etc.

<sup>48</sup>Seshan (1987) excludes Reserve Funds, Rangarajan, Basu and Jadhav (1989), Gopalakrishnan (1989) and Bhattacharya and Guha (1990) exclude Reserve Funds and Deposits, while Gopalakrishnan (1991) includes them in public debt.

**Table - 18: Total External Debt of India**

(per cent of GDP)

Year (end-Mar)	Government Debt*	Trade Credit	Commercial Borrowing	Short-term Debt**	Others ***	Total External Debt
1	2	3	4	5	6	7
1991	16.2	1.5	3.5	3.0	4.6	28.8
1996	15.1	1.6	4.0	1.4	5.0	27.1
2001	9.7	1.3	5.4	0.8	5.4	22.6
2004	6.7	0.7	3.5	0.7	6.0	17.6

\* Government debt includes borrowings from agencies (multilateral and bilateral) and IMF, and Rupee debt owed to Russia. \*\* Short-term debt (less than one year maturity) includes Non-Resident Indian Deposits (NRID), Foreign Currency (banks and others) Deposits (FCBOD) and other trade related debt (excluding suppliers' credit up to 180 days). \*\*\* Others include non-government borrowing (multilateral and bilateral) and Deposits (NRID and FCBOD) with maturity of more than a year. The data given above differs from that provided in Table -1, which included only government debt given here in Column 2.

*Source: Annual Reports, Reserve Bank of India.*

## Section – 2: Contingent Liabilities of the Government

In addition to the size of debt appearing in the budget of the Government, there has been a steep rise in the off-budget liabilities arising on account of guarantees extended by the Government, mainly the State Governments since 1992. The guaranteed bonds are mainly held by the commercial banks followed by development finance institutions and cooperative banks. The main reason for the increase was the imposition of strict fiscal controls with the onset of reforms, discontinuation of the allocation of market borrowings to state level undertakings by the Central Government since 1996-97 and reduction in capital formation by the government in its effort to curtail expenditure. The explicit guarantees given by the combined Government rose from Rs.907.3 billion as at end-March 1992 to Rs.2,749.1 billion as at end-March 2003, though as a ratio to GDP they declined from 13.9 per cent to 11.2 per cent during the same period (Table - 19).

**Table - 19: Contingent Liabilities of the Government**

(per cent of GDP)

Year (End - March)	Central Government	State Government	Total
1	2	3	4
1992	7.7	6.1	13.9
1993	7.8	5.7	13.4
1994	7.3	5.7	13
1995	6.2	4.8	11
1996	5.5	4.4	9.6
1997	5.1	4.6	9.7
1998	4.9	4.8	9.7
1999	4.3	5.6	9.9
2000	4.3	6.8	11.2
2001	4.1	8.0	12.1
2002	4.2	7.2	11.4
2003	3.7	7.5	11.2

*Source: Reserve Bank of India.*

A rise in contingent liabilities essentially reflects the practice followed by the State Governments to set up corporations to borrow from the market to undertake departmental projects. In view of low user charges and inefficient operations of state public sector undertakings, these contingent liabilities are a cause of concern. The rising trend and its implications have been examined by the State Governments and remedial measures taken - eight states have legislated ceilings on guarantees<sup>49</sup> and seven states have set up a guarantee redemption fund.<sup>50</sup> The RBI, which regulates and supervises the government securities market as well as the commercial banking activity, has specifically directed the banks and financial institutions to extend loans only on the basis of commercial viability and not on the basis of the government guarantees. The banks and financial institutions have been advised by the RBI to make adequate provisions for the guaranteed bonds. This stipulation has helped partially in containing the rise in state government guarantees.

<sup>49</sup> Statutory Ceiling – Goa, Gujarat, Karnataka, Sikkim and West Bengal. Administrative Ceiling – Assam, Orissa and Rajasthan.



In the Central Government, MOF coordinates the issuance and management of guarantees while in the States different departments are responsible, with the Department of Finance (DOF) collecting and disseminating information.

### **Section 3: Developments in the Money and Government Securities Market**

The fiscal and financial sector reforms initiated in 1991 have had an impact on government debt management. While fiscal deficits and debt have continued to be high thereafter, the stoppage of automatic monetization and resort to market determined rates on government borrowing through auctions brought about a substantial change in the markets.

#### **3.1: Developments in Money Market**

In the money market, the major reforms were in the call market and repo market, and new instruments were introduced - Treasury bills of different maturities, commercial paper, certificates of deposits, inter-bank participation certificates and rediscounting of commercial bills. To develop the call market, non-bank participants were allowed to operate and inter-bank liabilities were freed from reserve requirements to facilitate the emergence of a smooth yield curve and reduce volatility in the call rates. The objective of making the call market a purely inter-bank market for banks is being pursued since 2001 as other markets and instruments have now developed for the participation of non-banks. The Repurchase Agreements (Repo) were introduced by the RBI on December 10, 1992 to regulate short-term liquidity in the system. RBI usually conducted 14-day Repos till February 1995. However, from November 1996 to November 1997, the RBI conducted 3-4 day repos to stabilise the money market. In November 1997, the RBI switched to daily fixed- rate repos to provide a signal for money market rates and impart stability to short-term interest rates by setting a floor level to call rates. Since June 2000, the RBI has introduced the Liquidity

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<sup>50</sup> Andhra Pradesh, Goa, Gujarat, Himachal Pradesh, Karnataka, Orissa and Rajasthan.

Adjustment Facility (LAF) under which it absorbs or injects liquidity on a daily basis. The LAF has successfully provided a corridor to the Call rate.

### **3.2: Developments in Government Securities Market**

In the government securities market, since 1992, market borrowings have been raised through auctions of Government securities of different maturities. Since then new instruments have been regularly introduced – e.g. zero coupon bonds, floating rate bonds and capital indexed bonds. The yield curve that emerged was market – related and increasingly has served as a benchmark for other instruments in the debt market. Since April 1999, the RBI has been passively consolidating existing Central Government stock to impart liquidity to the existing stocks, limit the number of securities and help in developing volumes in benchmark securities. To encourage retail investors to participate in the government securities market, the RBI has been promoting gilt funds since 1997, operationalized a scheme of non-competitive bidding in January 2002, and initiated trading of Government securities on stock exchanges in January 2003.

### **3.3: Institutional Developments**

In terms of institutional development, Primary and satellite dealers were set up formally in 1995, though a Discount and Finance House of India had been in operation since 1986. A Clearing Corporation was set up in February 2002; a Negotiated Dealing system was operationalized in February 2002 and a Real Time Gross Settlement (RTGS) system which commenced operations from March 2004, integrates the accounting system of the Reserve bank and other payments systems and services in the country.

### **3.4: Interest Rates**

The Bank Rate, which had been dormant till 1997 (adjusted 13 times, only upwards, between 1935 and July 1991), was activated to serve as a reference rate as well as an effective signalling mechanism to reflect the monetary policy stance (adjusted 16 times, of which three times upwards, during October 1991 and April 2003). Initially,

the interest rate on major financial instruments offered by the Reserve Bank was linked to the Bank Rate. As the rates in the primary markets became increasingly market-determined, essentially at rates emerging out of the LAF auctions, the Bank Rate now serves primarily as a signalling instrument of monetary policy in line with the evolving macroeconomic and liquidity conditions.

The development of the markets has led to convergence of the interest rates in the economy (Jena, 2004). The interest rates on government securities are in alignment with the other rates in the market, which has led to diversification of the investor base for the government securities (Tables 20 - 21).

**Table-20: Structure of Interest Rates - Short Term**

(per cent)

Year	Bank Rate	Treasury bills - 91-day	Call Money Rate - Bombay
1	2	3	4
1960-61	4.00	2.65	4.24
1970-71	6.00	3.08	6.38
1980-81	9.00	4.60	7.12
1990-91	10.00	4.60	15.85
2000-01	7.0	8.98	9.15
2001-02	6.5	6.88	7.16
2002-03	6.25	5.73	5.89
2003-04	6.00	4.59	4.33

*Source: Reserve Bank of India.*

**Table-21: Structure of Interest Rates - Long Term**

(per cent)

Year	Advances Rate-SBI	Commercial Bank Rates*		Coupon Rates on Market Loans and Bonds		
		3-5 yrs	Over 5 yrs	0-5 yrs	6-10 yrs	over 10 yrs
1	2	3	4	5	6	7
1960-61	5.00	4.00	4.50	-	3.50	4.00
1970-71	8.50	7.00	7.25	-	4.50	5.75
1980-81	16.50	10.00	10.00	-	6.00-6.50	6.75-7.50
1990-91	16.50	11.00	11.00	10.50	10.75	11.25-11.50
2000-01	11.50	9.50-10.00	9.50-10.00	9.47-10.95	9.88-11.69	10.47-11.70
2001-02	11.50	8.00-8.50	8.00-8.50	-	6.98-9.81	7.18-11.00
2002-03	10.75	5.50-6.25	5.50-6.25	-	6.65-8.14	6.84-8.62
2003-04	10.25	5.25-5.50	5.25-5.50	4.69	4.62-5.73	5.18-6.35

\* Since 1995-96 deposit rates refer to 5 major public sector banks as at end March.

*Source: Reserve Bank of India.*

In view of the reforms, trading in the secondary market has also improved. In case of Treasury bills, the spread between different maturities is narrowing in recent period as measured by range and mean of the spread (Table - 22). In secondary trades, the volumes of 364 day bills dominate both in the outright and repo market while ratio of turnover to outstanding is higher for the 91-day bills (Table – 23).

**Table - 22: Spread Analysis of Yields of Transactions in Treasury bills of Residual Maturity in the Secondary Market**

Statistics	1996-7	2000-1	2003-4	1996-7	2000-1	2003-4	1996-7	2000-1	2003-4
	15-91 over 0 - 14 days			92-181 over 15-91 days			182-364 over 92-181days		
1	2	3	4	5	6	7	8	9	10
Range	4.42	3.82	3.54	3.80	1.57	0.34	2.55	0.80	0.20
Minimum	-0.60	-1.61	-2.74	-1.30	-0.74	-0.17	-0.07	0.19	-0.09
Maximum	3.82	2.21	0.80	2.50	0.82	0.17	2.48	0.99	0.11
Mean	2.22	0.32	-0.20	1.34	0.11	0.02	0.77	0.46	0.02
CV	0.59	3.88	-4.94	0.81	4.47	4.88	0.91	0.55	3.80

*CV – Coefficient of Variation.*

*Source: Reserve Bank of India.*

**Table - 23: Secondary Market Transactions in Treasury bills**

1	Outright			Repo			Ratio of Turnover to Outstanding			
	Total (Rs.b)	Of which (%)		Total (Rs.b)	Of which (%)		Outright		Repo	
		91 day	364 day		91 day	364 day	91 day	364 day	91 day	364 day
2	3	4	5	6	7	8	9	10	11	
1995-96	115.1	35.6	64.4	48.1	12.5	87.5	0.6	4.0	0.1	2.2
1996-97	334.2	67.0	33.0	36.1	38.3	61.7	3.9	1.3	0.2	0.3
1997-98	412.0	12.6	70.9	38.1	6.9	92.5	3.3	1.8	0.2	0.2
1998-99	428.9	44.4	39.2	16.2	17.6	82.4	12.7	1.7	0.2	0.1
1999-00	475.8	16.2	68.3	70.2	2.9	84.9	5.1	2.5	0.1	0.5
2000-01	600.6	14.6	67.9	168.9	3.9	90.3	3.8	2.7	0.3	1.0
2001-02	673.3	29.2	68.1	255.7	7.9	91.9	3.9	2.3	0.4	1.2
2002-03	767.8	45.1	54.9	734.1	17.1	82.9	3.5	1.6	1.3	2.3
2003-04	1161.6	42.5	57.5	606.7	23.5	76.5	6.9	2.6	2.0	1.8

*Source: Reserve Bank of India.*

In the case of dated securities, the range and mean of the spread has also been narrowing generally and the coefficient of variation is also declining, implying that the markets are becoming more stable, perhaps with increasing depth (Table – 24). However, the yield spreads are still high compared to the developed markets like the USA. In the secondary market, the central government securities dominate both in the outright and repo market (Table – 25). The state government securities are

beginning to be traded in the repo market from 2001-02, though the volumes are still very low. The share of PDs has declined in the outright market in recent years while their number has been increasing.

**Table - 24: Spread Analysis of Government Dated Securities in Secondary Market**

	Range	Minimum	Maximum	Mean	Coefficient of Variation
1	2	3	4	5	6
<b>1996-97</b>					
5 over 2 yrs	1.48	0.17	1.65	0.85	0.53
10 over 5 yrs	0.51	0.14	0.65	0.32	0.51
<b>2000-01</b>					
5 over 2 yrs	0.26	0.25	0.51	0.37	0.20
10 over 5 yrs	0.56	0.34	0.90	0.63	0.28
15 over 10 yrs	0.81	-0.21	0.60	0.25	0.93
<b>2003-04</b>					
5 over 2 yrs	0.40	0.03	0.43	0.24	0.50
10 over 5 yrs	0.26	0.23	0.49	0.33	0.24
15 over 10 yrs	0.43	0.16	0.59	0.41	0.31
20 over 15 yrs	0.34	-0.01	0.32	0.20	0.55
25 over 20 yrs	0.09	0.02	0.11	0.07	0.41

*Source: Reserve Bank of India.*

**Table - 25: Secondary Market Transactions in Government Securities**

Year	Outright			Repo			Ratio of Turnover to Outstanding			
	Total (Rs.b)	Of which (%)		Total (Rs.b)	Of which (%)		Outright		Repo	
1	2	3	4	5	6	7	8	9	10	11
1995-96	180.2	97.4	2.6	928.3	100.0	0.0	0.1	0.0	0.6	0.0
1996-97	605.0	99.0	1.0	254.2	100.0	0.0	0.3	0.0	0.1	0.0
1997-98	1,198.9	98.9	1.1	208.1	100.0	0.0	0.5	0.0	0.1	0.0
1998-99	1,446.4	98.9	1.1	380.8	100.0	0.0	0.5	0.0	0.1	0.0
1999-00	4,089.4	99.1	0.9	757.2	100.0	0.0	1.1	0.0	0.2	0.0
2000-01	5,120.8	99.4	0.6	1,091.1	100.0	0.0	1.2	0.0	0.3	0.0
2001-02	11,446.1	99.5	0.5	3,363.6	99.9	0.1	2.2	0.1	0.7	0.0
2002-03	13,026.2	99.3	0.7	4,898.5	100.0	0.0	2.1	0.1	0.8	0.0
2003-04	15,675.5	99.0	1.0	8,948.6	98.9	1.1	2.2	0.1	1.3	0.1

*Source: Reserve Bank of India.*

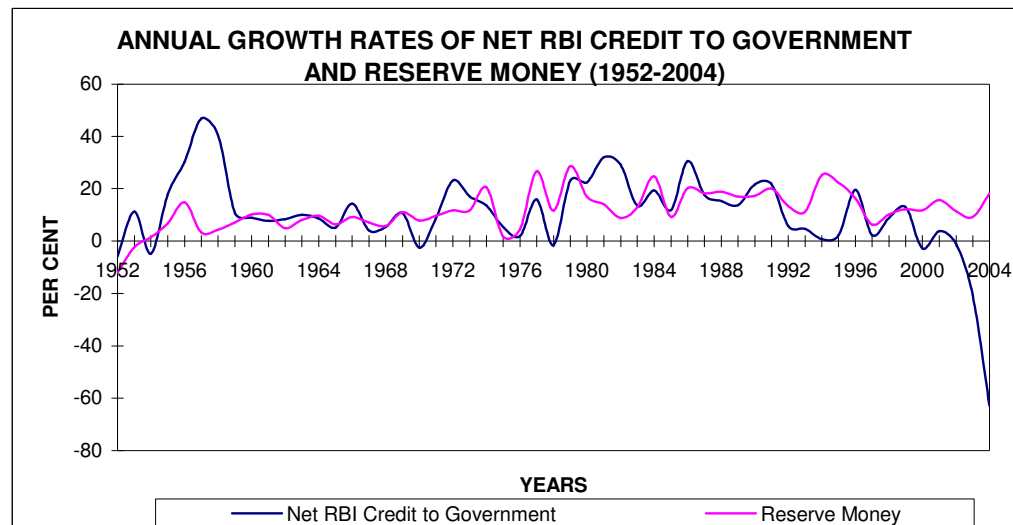
#### Section- 4: Monetised Deficit, Monetary Aggregates and Price Level

The prevalence of administered interest rates resulted in the deficit of the Government, mainly Central government, being accommodated by the RBI. The share of monetised deficit in gross fiscal deficit of the Central Government ranged between 30.3 per cent and 42.8 per cent during 1978 to 1985 and between 21.0 per

cent and 38.8 per cent during 1986-1991. The amount of Net RBI Credit to Government (NRBICG),<sup>51</sup> accounted for more than four-fifth of the Reserve Money (RM), on an average during 1970-99 and exceeded 100 per cent during 1980-91. This volume of monetisation has related implications for the price level and independence of monetary policy (Cukierman, 1992; Cottarelli, 1993 and Kopits and Symansky, 1998). The close relationship between monetised deficit, monetary aggregates and the price level in India is graphically presented in the following discussion.

The analysis of the long-term growth of NRBICG till 1991, presented in Graph 1, reveals a close relationship between NRBICG and reserve money. The Central

**Graph - 1**



<sup>51</sup> RBI credit to Government, both Central and the State Governments, specifically, comprises the following : - (i) Rupee securities held in Issue Department, (ii) Treasury bills purchased and discounted, (iii) Investments in government securities, (iv) Rupee coins in Issue and Banking Departments, and (v) Loans and advances, including ways and means advances. Item (iv) needs further clarification. The RBI comes to acquire the government currency as the Central Government's agent for distribution of currency to the public as well as a backing against its own currency. The government currency appears as an asset in the balance sheet of the Reserve Bank of India. It is an insignificant component.

Government resorted to borrowings from the RBI regularly<sup>52</sup> in addition to periods of wars<sup>53</sup> and droughts.<sup>54</sup> Since 1991, a concerted effort was made by the Government to contain NRBICG. The increase in reserve money has diverged from NRBICG since the early nineties due to a consistent increase in foreign exchange reserves, beginning from 1997.

The money stock measures generally used in India are the narrow (M1)<sup>55</sup> and broad money (M3).<sup>56</sup> The relationship in annual growth rate of net RBI credit to government, reserve money and money supply are presented in Graphs - 2 and 3. These two graphs exhibit a close relationship between NRBICG and reserve money, and the two measures of money supply.<sup>57</sup> The sharp fluctuations in growth rates of both narrow and broad money are mainly due to the revision in the concept, definition and compilation of money supply in India - dip in the M3 series at 1961

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<sup>52</sup> The sudden spurt in NRBICG during 1956 and 1957 was due to lack of public support to the government's market borrowing programme as a result of slack money market conditions. The financial resources were required for investment purposes by the government. The Monetised deficit accounted for 24.4 per cent of total plan outlay in the Second Five Year Plan (1956-61). The increase in NRBICG during 1979-81 is result of the expansionary fiscal policy during 1977 and 1978.

<sup>53</sup> The spurts in 1962-63 and 1965-66 were due to the war expenditure with China and Pakistan, respectively. The other big spurt in NRBICG during 1971-1973 is due to the war with Pakistan and the influx of refugees from Bangladesh in 1971. The number of refugees from Bangladesh had reached ten million by December 1971. Seven million of these were housed in government camps (p.44, Government of India, 1972).

<sup>54</sup> In 1979, national income, at real prices, declined by 5.3 per cent while agriculture and industrial production declined by 15.5 per cent (due to drought) and 1.4 per cent, respectively. In view of the decline in production, but increased expenditure on drought and natural calamities' relief and certain committed plan expenditures, and decline in external aid, increasing reliance was placed on NRBICG. Since 1985, increase in NRBICG was mainly due to increased relief expenditure on agriculture in the form of subsidy (food and fertilizer), because of a negative growth rate in the agriculture sector during 1984-85, 1986-88, and 1991-92.

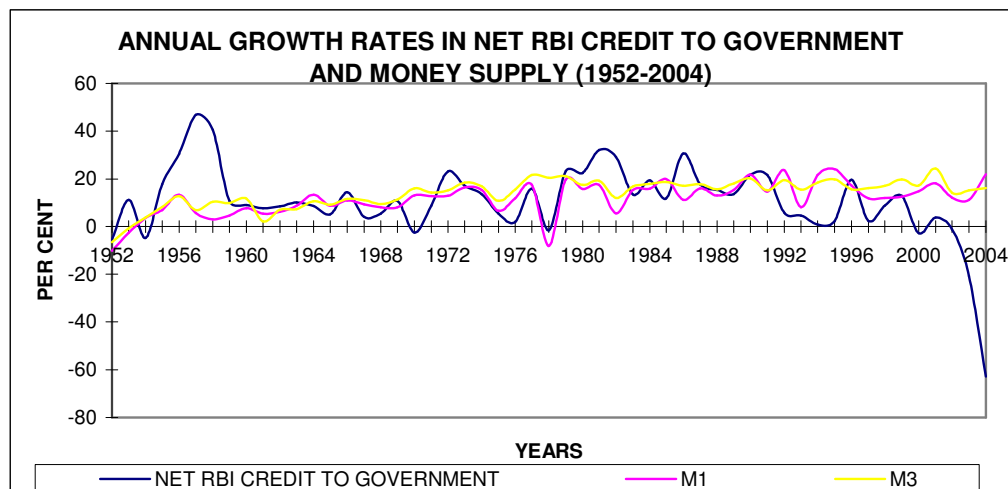
<sup>55</sup> Narrow money consists of i) Currency notes and coins with the public (excluding cash on hand of all banks), ii) Demand deposits (excluding interbank deposits) of all commercial and co-operative banks and iii) Other deposits held with the Reserve Bank of India.

<sup>56</sup> Broad Money consists of i) M1 and ii) Time deposits of all commercial and co-operative banks (excluding inter-bank time deposits).

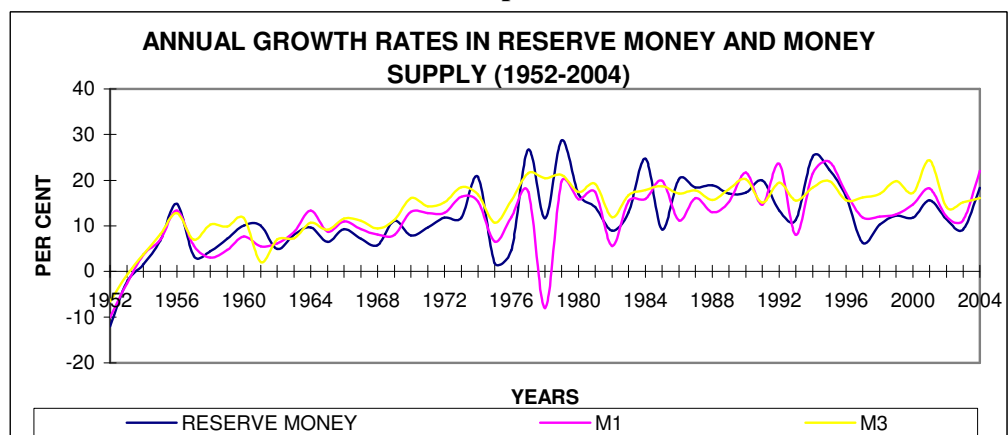
<sup>57</sup> Rangarajan and Singh (1984) conclude for the Seventies that reserve money and money stock are closely related in India.

and the M1 series at 1978.<sup>58</sup> In case of the M1 series, the cause of the substantial decline is the revision in definition of the demand and time liabilities of the saving deposits.<sup>59</sup> In India, many studies have emphasized the applicability of monetarist

**Graph - 2**



**Graph - 3**



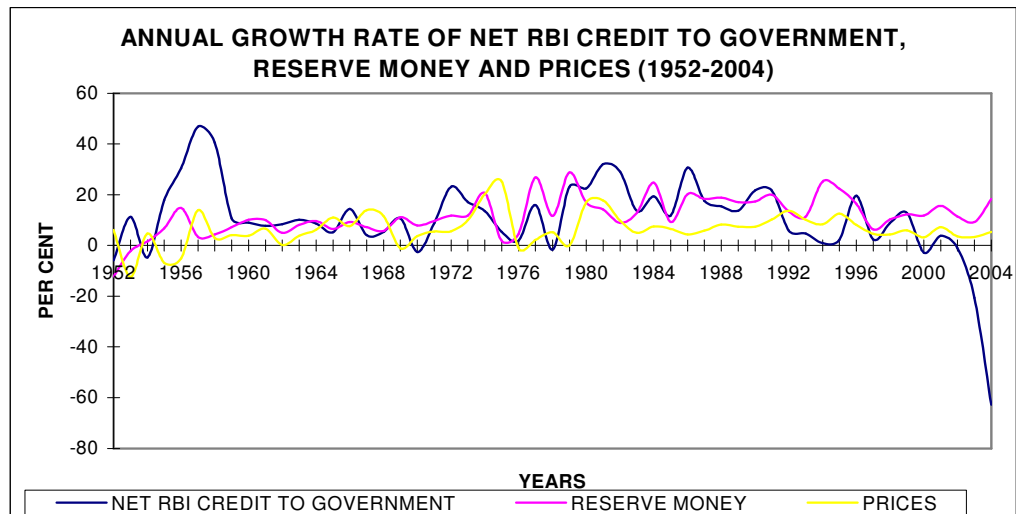
<sup>58</sup> Reports of the Working Group on Money Supply in India in 1961 and 1977.

<sup>59</sup> Till March 1978, there was no uniformity in classification of savings deposits. The banks determined the demand component of their savings deposits on the basis of the maximum amount a depositor could withdraw. Banks were advised by the Reserve Bank to follow a uniform pattern in October 1977. Demand deposits constitute a part of narrow money while time deposits are included in broad money. Consequently, the banks, on various dates, starting from January 1978 to January 1981, but mainly in 1980 (April to June), began to classify a large proportion of their saving deposits as time deposits and a lower proportion as demand liabilities (p. 86, Reserve Bank of India (1980-81) and p. 246, Reserve Bank of India (1990-91)).

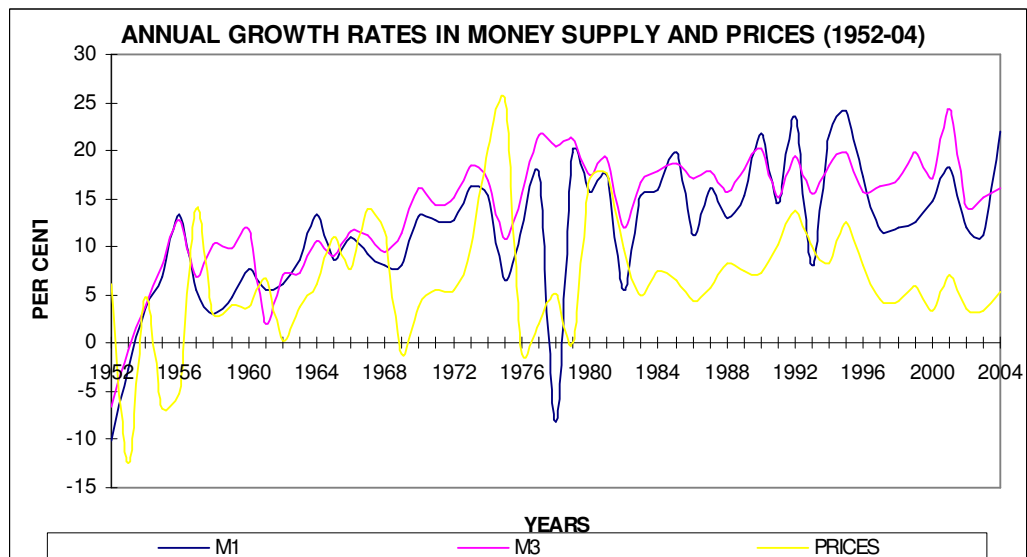


theory, and also empirically tested the robustness of the demand function whereby a rise in the money supply directly affects the price level (Brahmananda, 1972; Bhalla, 1981; Minhas, 1987; Rao, 1990, Buitert and Patel, 1992 and Singh, 1999b). Finally, Graphs - 4 and 5 exhibit a positive relationship between NRBIG, reserve money, money supply and prices – supporting the monetarist argument in India.

**Graph - 4**



**Graph - 5**



## **Section – 5: Separation of Debt and Monetary Management**

In recent years, the global trend in financial sector liberalization and large movement of international capital flows have led to a focus on issues of central bank independence, fiscal policy and debt management. The debt crises of 1982 and then the Asian Crisis of 1997 have led many countries to assign priority to public debt management. The new regimes of liberalized financial markets and high levels of government debt seek to adopt professional debt management techniques to save cost and to provide fiscal policy signals to the market (Giovannini, 1997).

The main objective of debt management is to minimize the cost of borrowings over the medium to long run. The minimization of cost does not imply borrowings at sub-market rates from the central bank. In many countries, prudent management of risk, and promotion and development of efficient primary and secondary market for government securities are also important complementary objectives for debt management. Hence, Public debt management can be explained as the process of executing a strategy for managing the government's debt - to raise the required amount of borrowings, pursue cost/risk objectives, and also meet any other goal that the government might have set (IMF, 2003).

The debt management strategy in a number of countries, in recent times, is formulated in the framework of asset-liability management, implying the application of a portfolio approach to government debt management. In the portfolio approach, the importance of debt management in stabilization policy will depend on how substitutable different types of bonds are, and how the return on bonds varies with changes in other asset prices. If different types of bonds are not perfect substitutes, then changing the mix of bonds in the private sector's portfolio could affect relative asset yields, investment and economic activity (Bernanke and Gertler, 1999; Vickers, 1999). Empirical results are mixed on this relationship. For the US, Agell and Persson (1992) report that the effect is positive though small, while Hess (1998) finds a significant effect on asset yields from changes in the maturity mix of government securities for the UK.

The important issue in the present context is the relationship between debt and monetary management. Historically, concerns over the interaction of debt and monetary policy were closely linked to the level of public debt in the UK (Goodhart, 1998). Though to grant enhanced autonomy to the central bank and to focus on debt policy, the two functions have been separated, yet the two agencies continue to coordinate at the operational level. This ensures that fiscal and monetary policies do not operate at cross-purposes in the financial markets.

This Section considers the need for an independent central bank, from the restricted perspective of debt management, and a separate debt management office. The importance of coordinating the activities between the debt and monetary authorities, in view of the fact that the financial markets are crucial for both, has also been discussed separately. Finally, it is demonstrated that India has been developing robust debt management practices since 1992, but the debt management functions are scattered in different offices of the government and the RBI. The recommendation, therefore, is that India would benefit from a separate debt management office.

### **5.1: Central Bank Independence**

In the past few years, in theoretical and empirical literature, substantial evidence has been advanced to support the independence of the central bank, which can be measured in terms of political and economic factors (Grilli, Masciandaro and Tabellini, 1991). Bade and Parkin (1982) define political independence as the ability of the central bank to choose its policy without the influence of the fiscal authority while economic independence refers to the freedom to use its monetary policy instruments. In support of central bank independence, Kydland and Prescott (1977), Barro and Gordon (1983a and 1983b), Burdekin and Laney (1988), Eschweiler and Bordo (1993) and Grilli, Masciandaro and Tabellini (1991) argue that more independent central banks reduce the rate of inflation, while Alesina and Summers (1993) conclude that such independence has no impact on real economic

performance. Wagner (1998) argues that making a central bank independent lowers the expectations pertaining to inflation of the private sector that determine wage and price contracts, and thereby also the expectations that impact the exchange rates. Blinder (1997), and Bernanke and Mishkin (1997) suggest that policy makers should announce targets and that policy transparency to achieve those specific targets will enhance accountability while providing independence to the central bank.

Goodhart (1994) argues that it is easier for the principal to appoint an agent and prescribe a single, quantified, easily recognized, measured and understood outcome, which would facilitate monitoring and accountability. The argument in favour of an independent central bank stems from the generally accepted vertical longer-term Phillips curve, which implies that there is no medium or long-term trade-off to exploit between unemployment and inflation, and that the best possible outcome of monetary policy is price stability. In recent years, many countries have granted increased independence to the central banks to focus on the objective of price stability (Blinder, 2004; Cukierman, 1992). Kopits and Symansky (1998) argue that a prohibition on central bank credit to the government removes an important source of inflationary pressure. Unlimited access to central bank credit at easy terms by the government not only restricts the independence of the central bank, but also adversely affects the financial position of the banking sector.

In some countries, where financial markets are not developed, the need to finance the deficit of the government restricts the independence of the central bank - automatic and unlimited access to central bank credit is resorted to, supposedly for the purpose of capital expenditure expected to lead to higher economic growth.<sup>60</sup> Independent central banks are able to restrict such accommodation of fiscal deficits depending on the needs of the monetary policy (Demopoulos, Katsimbris and Miller, 1987 and Burdekin and Laney, 1988). Rather, Grilli, Masciandaro and Tabellini

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<sup>60</sup>Cukierman (1992) discusses some of the structural reasons that led to flow of credit from the central bank to the government and eventually erosion of its independence - (i) underdeveloped financial markets, (ii) inelastic supplies of funds with respect to real rate of interest, (iii) large outstanding domestic debt, and (iv) inelastic revenue and expenditure of the government with respect to income.

(1991) and Carracedo and Dattels (1997) mention, that in many countries, borrowing from the central bank is prohibited (Table - 26). Sundararajan, Dattels and Blommestein (1997) also argue that a ceiling on central bank credit to government promotes monetary restraint and helps to establish central bank credibility and operational autonomy. In the Maastricht Treaty, only indirect credit and that also at the discretion of the central bank is extended to the government. Although OECD countries impose no formal constraints on indirect central bank credit to government, nevertheless there are often informal constraints – open market operations can only be done for monetary policy reasons.

The transfer of profits of the central bank to the government also restricts the independence of the central bank and could also be inflationary, if these lead to higher expenditure.<sup>61</sup> Historically, the need to impose limits on the government's ability to finance itself through seigniorage revenue was one of the major reasons to grant independence to the central bank (Swinburne and Castello-Branco, 1991). Therefore, Blommestein and Thunholm, (1997) and Sundararajan and Dattels (1997) argue that such profits should be netted out against treasury debt to the central bank and the rest of the profits should be transferred to the government.<sup>62</sup> Robinson and Stella (1988) argue that if profits of the central bank go to the government, then conversely transfers from the Government should cover losses. This would imply a combined balance sheet of the central bank and the government resulting in a continuous flow of seigniorage revenue to the government, which, however, would not be acceptable to an independent central bank.

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<sup>61</sup> If debt management activity is also undertaken by the central bank, then the profits may be substantially larger.

<sup>62</sup> Blommestein and Thunholm (1977) suggest that another way to restrict the transfer of seigniorage to the government is to maintain the real value of reserves and capital.

**Table - 26: Central Bank Credit to Government**

S.No	Country	Management of Cash Balances – operational arrangements	Monetary Consideration in debt management	Policy in debt	Provision on Borrowings for the Central Bank
1	2	3	4	5	
1	Argentina	Treasury	None		Direct borrowings Prohibited
2	Brazil	NA	Feedback with MA		Allowed
3	Canada	Bank of Canada and commercial banks	Indirect		Allowed
4	France	Bank of France	None		Prohibited
5	Italy	Bank of Italy	Feedback with MA		Prohibited
6	Japan	Treasury	None		Prohibited
7	Mexico	Treasury	Feedback with MA		Prohibited
8	New Zealand	Treasury and Debt Office	None		Prohibited
9	Sweden	Debt Office	Yes		Prohibited
10	UK	Debt Office	Yes		Prohibited
11	USA	Federal Reserve and commercial banks	None		Prohibited

*MA= Monetary Authority*

## 5.2: Separate Debt Management Office

A number of countries have chosen to open a separate debt management office to have a more focused debt management policy (Table – 27; Case studies in Appendix -I). On the basis of the experience of OECD countries, Cassard and Folkerts-Landau (1997) observe that several reasons emerge that justify the separation of debt management – to preserve the integrity and independence of the central bank, to shield debt management from political interference, to ensure transparency and accountability, and to improve debt management by entrusting it to portfolio managers with knowledge and experience in modern risk management techniques.

The separation of debt and monetary management positively affects expectations as it explicitly indicates to the market and credit rating agencies that monetary policy is independent of debt management.<sup>63</sup>

**Table - 27: Location of Debt Management Office in Some Countries**

Country	Location of Debt Management Office	Scope of Debt Management			Advisory Board
		Cash	Debt	Contingent	
1	2	3	4	5	6
1.Australia	Separate agency under Treasury since 1999	Yes	Yes	No	Yes
2.Brazil	Debt office under Treasury since 1988	Yes	Yes	No	No
3.Colombia	Debt office under Treasury since 1991	No	Yes	Yes	Yes
4.Denmark	Debt office in central bank	Yes	Yes	Yes	No
5.France	Separate agency under Treasury since 2001	Yes	Yes	No	Yes
6. Germany	Separate agency under Treasury since 2001	Yes	Yes	No	No
7. Ireland	Separate agency under Treasury since 1991	Yes	Yes	No	Yes
8. Italy	Debt agency under Treasury - reforms beginning from 1991 and completed in 1997	Yes	Yes	No	No
9. Mexico	Separate office in Treasury	No	Yes	Yes	No
10.New Zealand	Separate office under Treasury since 1988 and restructured in 1997	Yes	Yes	Yes	Yes
11.Poland	Debt office within Treasury	No	Yes	Yes	No
12.Portugal	Separate debt office under Treasury since 1996	Yes	Yes	Yes	Yes
13.Sweden	Separate debt office under Treasury since 1789 and restructured in 1998	No	Yes	Yes	Yes
14.UK	Separate debt office under Treasury since 1997	Yes	Yes	No	Yes
15.USA	Debt office within Treasury	Yes	Yes	No	No

In case the central bank conducts debt management policy, conflicting objectives may emerge. Should liquidity be tightened based on monetary conditions or should it be relaxed to ensure success of market borrowing program? Another area of concern could be interest rates. The government will like to borrow at low costs while the central bank will consider monetary and financial stability more important. The central bank may be tempted to manipulate financial markets to reduce the interest rates at which government debt is issued (Cassard and Folkerts-Landau (1997). Taylor (1998) argues that the Accord between the Federal Reserve and the Treasury in 1951, which emancipated the Fed from assisting the Treasury in borrowings at low rates of interest, helped the Fed to focus on interest rates. Even if a separate

<sup>63</sup>In case the two are not separated, then debt management policy eventually becomes subservient to the monetary policy as the monetary authorities attempt to use debt instruments to strengthen monetary policy signals and to enhance the credibility of the central bank.

department within the central bank conducts debt management, the market will still perceive that the debt management decisions are influenced by inside information on interest rates.

A separate debt management authority is also a step removed from the political process of budget making and generally would not succumb to the political pressure to trade-off long term debt management goals with short-run budget goals (Alesina, Prati and Tabellini, 1990). The presentation of a separate debt management report to the parliament will lead to better fiscal discipline, appropriate audit, and financial and management controls.

The location of the debt management office is also important and will depend on a number of considerations. The dispersal of debt management functions within different layers of government can lead to lack of coherent debt management policy and overall risk assessment, and therefore higher operational risk. Some OECD countries have opted for an autonomous debt management office to improve operational efficiency (Austria, Finland, Ireland, Portugal, Sweden, Germany, Hungary, and UK) while others, seeking a balance between public policy and financial management, have a separate office but operating under the Ministry of Finance (Australia, Belgium, Canada, France, Netherlands, New Zealand, Poland and USA). In Denmark, debt management is undertaken by a privately owned central bank (OECD, 2002). In the case of developing countries, Currie, Dethier and Togo (2003) argue that the separate office can be initially placed under the Ministry of Finance while Kalderen (1997) suggests that in countries where fiscal deficits were high and financial markets were underdeveloped, a separate debt management office may be unsuitable for overall policy effectiveness of debt management. Thus, the advantages of having a separate and autonomous debt office are – *a*) a signal to the financial markets that the government assigns institutional importance to the function; *b*) a commitment to the financial markets and the political parties for a transparent and accountable debt management policy; and *c*) the avoidance of any political pressures aimed at short-term political gains. In an autonomous debt office,



staffing pattern can be professionally competent and the operational environment is similar to that of a privately run commercial enterprise that is required to manage a portfolio within the risk parameters. The ongoing developments in the financial markets, illustratively the derivative instruments, require specialized training to monitor mark-to-market positions, over-the-counter dealings and pricing by the debt management authority, which would require competent and qualified professionals.

### **5.3: Coordination with Monetary and Fiscal Policy**

In each country, the economic situation, including the state of domestic financial markets and the degree of central bank independence, would play an important role in determining the range of activities to be handled by the debt manager and the level of coordination that is necessary. Monetary policy and debt management clearly have to be complementary to each other but debt management should not be considered a tool of monetary management nor should monetary policy be considered the objective of debt management (Bank of England, 1995). The industrial countries have generally separated the objectives and accountabilities of debt and monetary management. In the case of the EMU, monetary policy is operated by the ESCB while national authorities conduct debt management. The sharing of adequate information between Treasuries, national central banks and the European Central Bank is ensured for the purpose of liquidity management. The industrialized countries also ensure that debt manager and monetary authority coordinate their activities in financial markets to avoid operating at cross-purposes.

In the case of developing countries coordination between fiscal, monetary and debt management functions is even more crucial, where financial markets are underdeveloped and forecasts of government revenues and expenditure are inaccurate. The financing options of the government are limited and cash requirements are uncertain, and this then limits the independence of the central bank. The issuance of government securities by a separate debt office should be closely coordinated with the open market operations undertaken by the central bank to ensure appropriate liquidity conditions in the market.

Therefore, the role of the central bank in public debt management, though separated, would continue to be crucial. As an issuing agency of government securities, the central bank organizes rules and procedures for selling and delivering securities and for collecting payments for the government. As a fiscal agent, the central bank makes and receives payments, including interest payments and servicing of principal. As adviser to the government and to the debt manager, it could provide policy inputs on the design of the debt program, mix of debt instruments and maturity profile of debt stock. These inputs will be useful in providing stability to the overall debt program, facilitating smooth functioning of the market, and providing a stable environment for the conduct of monetary policy.

#### **5.4: Salient Features of a Debt Management Office**

The location and salient features of the debt management office differ across countries but generally the legal authority to borrow in the name of the central government rests with the parliament (details in Appendix – II). Also, limits on borrowing are generally prescribed and the trend is to include all types of government debt under a single agency.

The debt management office is generally provided with a sufficient degree of functional autonomy to fulfil its mandate without political pressure. Such autonomy is permitted along with the requirement that the debt management office be accountable, and transparent in its operations, procedures and results. The activities of the agency are supervised by a special advisory board, which provides guidance on strategic and technical issues to the chief executive regularly monitors its activities and reports directly to the concerned authority. The constitution and functioning of the advisory board lends credibility to the operations, which is necessary for robust market expectations (Calvo, 1988; Diamond and Dybvig, 1983). The membership of the advisory board is generally broad based, with representatives from the government, market, academia, and the central bank, to function in a transparent and effective manner.

The chief officer executes the operational aspects and the office is mainly organized to independently cover operational work, policy and planning, risk assessment, regulations and audit. The front office is responsible for resource mobilization, executing transactions in financial markets, including the management of auctions and other forms of borrowing, and all other funding operations, including guarantee operations, hedging, and derivative transactions of the government. The middle office undertakes risk analysis, prepares alternate debt scenarios and assesses the performance of the debt managers against any strategic benchmarks. The back office handles the settlement of transactions and the maintenance of financial records and market information system (debt registry, disbursements, and debt-service payments).

## **5.5: Present Position of Debt Management in India**

The debt management function in India is conducted by a number of different offices in the Government, both the Central and States, and in RBI, depending on the type of liabilities (Table – 28).

### **5.5.1: Important Role of the RBI**

The key role in management of internal debt is played by the RBI (discussed earlier in Section 1.2), which could conflict with its pursuit of the objectives of monetary policy. The monetary policy of the RBI aims to provide adequate liquidity to meet credit growth and support investment demand in the economy, while continuing to maintain a vigil on movements in the price level, and to prefer a soft and flexible interest rate environment within the framework of macroeconomic stability. The RBI is the regulator and supervisor of the financial system, including banks, and also of the money, government securities and foreign exchange markets. In contrast to the recent trend of assigning a single objective of inflation targeting to the central bank in many developed economies, the RBI has to balance the needs of the markets (manage liquidity), government requirements (fiscal requirements), balance sheet of the banks (asset prices and interest rate movements) and general price level (growth

of money supply). The specific objectives of debt management can accordingly be subsumed in the overall objectives of the monetary policy (RBI, 1999-2000).

**Table – 28: Management of Public Debt in India**

Major Items	Appropriated		Fixation Authority for/Determination of		
	by	Managed by	Amount	Maturity	Interest Rate
1	2	3	4	5	6
Market Loans	Centre State	MOF, RBI DOF, RBI	MOF MOF	MOF, RBI DOF, RBI	Market RBI, Market
Market Bonds	Centre State	RM, MOF, RBI RD, DOF, RBI	RM, MOF RD, DOF	RM RD	RM, MOF, RBI RD
Treasury bills	Centre	MOF, RBI	MOF, RBI	MOF, RBI	Market
WMA	Centre State	MOF, RBI DOF, RBI	MOF, RBI RBI	MOF, RBI RBI	RBI RBI
Loans from Bk & FI	State	DOF	RD	RD	RD, DOF
Small Savings	State	MOF, DOF	MOF, DOF	MOF	MOF
Provident Funds	Centre State	MOL, MOF MOL, DOF	MOL, MOF DOF	MOL MOL	MOL MOL
Reserve Funds/Deposits	Centre State	RM, MOF RD, DOF	RM RD	RM RD	RM RD
External Debt	Centre	MOF, RBI	MOF	MOF	MOF
Contingent Liabilities	Centre State	RM, MOF RD, DOF	RM RD	RM RD	RM RD

MOF – Ministry of Finance; DOF – Department of Finance; MOL – Ministry of Labour; RM – Respective Ministry; RD – Respective Department; Bk – Banks; FI – Financial Institutions.

The RBI, as a debt manager of the government and regulator of the government securities market, participates in and supports the borrowing program of the government. Though in the 1990's, with the development of the markets, net RBI credit to the government, especially the central government, has declined, yet the interest receipts of RBI on account of holding central government securities ranged

between 80 per cent and 212 percent of its profits in 1990's and net profits are transferred annually to the central government (Table - 29).

**Table - 29: Profits of RBI Transferred to Central Government**  
(per cent of GDP)

Year	Revenue Receipts	Non-Tax Revenue Receipts	Profits of RBI Transferred to Central Government
1	2	3	4
1990-91	9.7	2.1	0.06
1991-92	10.1	2.4	0.23
1992-93	9.9	2.7	0.20
1993-94	8.8	2.6	0.17
1994-95	9.0	2.3	0.35
1995-96	9.3	2.4	0.33
1996-97	9.2	2.4	0.38
1997-98	8.8	2.5	0.39
1998-99	8.6	2.6	0.26
1999-00	9.4	2.8	0.48
2000-01	9.2	2.7	0.45
2001-02	8.8	3.0	0.45
2002-03	9.4	3.0	0.36
2003-04	9.5	2.7	0.20

*Source: Annual Reports, Reserve Bank of India.*

In the RBI, the Department of Internal Debt Management (DIDM), set up in April 1992, undertakes the work relating to government securities, Treasury bills and cash management. DIDM is organized essentially as a separate debt management office with the essential units –primary market (borrowing and cash management of both Central and State), policy and research, dealing room, MIS and regulation (primary dealers). The actual receipts of bids and settlement functions are undertaken at various offices of the RBI across the country. The public debt offices of RBI, located in various parts of the country also manage the registry and depository functions, including the book entry form of ownership. The Department of Government and Bank Accounts (DGBA) maintain the accounts of both the governments – central and state, on a daily basis. On external debt, Department of External Investment and Operations in RBI works as a front office along with MOF. The function of cash management of the Central and State Governments is also performed by DIDM and DGBA in RBI.

### **5.5.2: Coordination between RBI, Government and Markets**

To coordinate the activities of debt management with fiscal authorities, various committees function in RBI. The Cash and Debt management committee, consisting of officials from the MOF and RBI meets regularly to discuss the operational details of market borrowings for the Central Government. The issues pertaining to the State Governments are discussed in a semi-annual meeting with the officials from MOF, DOF and RBI. The Technical Committee on Money and Government Securities, consisting of representatives from market, academia, government, banks, and RBI, meet regularly and advise the RBI on development and regulation of the government securities market. The High Level Committee on Capital Markets, with the Governor (RBI) as the chairman, supervises the overall developments in the capital market, including the capital market.

### **5.5.3: Audit and Reporting**

The debt management function of the RBI is subjected to internal audit and the statutory external audit. The Comptroller General of Accounts does the accounting of debt management operations; the Comptroller and Auditor General of Accounts, a constitutional body, do the audit. The internal debt management functions of the RBI are reported in the statutory Annual Report of the RBI while external debt management functions are reported in the Annual Status Report on External Debt – both presented to Parliament. The direct monitoring, accounting and audit of contingent liabilities is conducted in eight states where legislation to place limits on guarantees has been passed (Refer Section – 2). The data on contingent liabilities is consolidated by the RBI and placed in its annual statutory publications.

### **5.5.4: Development of the Markets**

The financial markets have developed since the reforms of 1991, especially the money and government securities market with the introduction of new instruments, technological innovations and effective regulation (Refer Section – 3). The government both central and state could successfully undertake debt restructuring in

the securities market in 2002 and 2003. The turnover in the secondary market is steadily rising since 1992 when the auction system of central government dated securities was introduced. The borrowing requirements of the government are successfully being mobilized from the market, with none or minimal devolvement on the RBI, in recent years. The primary dealer system introduced in 1995 has also developed and the primary dealers actively participate in the primary market and also provide two-way quotes in the secondary market. The borrowing calendar, announced by the Central Government on a six-monthly basis since March 2002, is generally adhered to. The government securities market has adopted suitable technology and the auctions are conducted electronically. The Clearing and settlement system has been operational since 2002 and the Real Time Gross Settlement System has been introduced since March 2004.

#### **5.6: Advantages from the Separation of Debt Management from the RBI**

The separation of debt and monetary management in India has been considered since 1997 (RBI, 1997; Reddy, 2004). The RBI has acknowledged the need for such separation, based on the fiscal performance of the government and development of the financial markets. The assignment of the function of debt management to a separate agency, would help to establish specific accountability and responsibility on the debt manager. This would lead to professional management of government debt liabilities and a mandate to operate on commercial basis. Expectations have an important role to play in debt management (Calvo, 1988) and such a separation would reinforce the commitment of the government to fiscal discipline and consolidation. The establishment of a separate agency, away from political interference, will also be beneficial, as it will help avoid the impact of political business cycles on debt management (Rajaraman, 2004; Khemani, 2000).

The separation of debt management from monetary policy will help the central bank to focus exclusively on price stability (RBI, 1997),<sup>64</sup> which will provide transparency

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<sup>64</sup> “Although price stability is an important economic policy objective by itself, there are several difficulties in adopting such a single goal of monetary policy in India. Given the need to manage the

in its operations (Blinder, 2004) and thereby enhance its credibility (Wagner, 1998), rather than having to focus on multiple objectives, which makes the central bank subservient to the government (Goodhart, 1994). The development of focussed and credible debt management strategy could also ensure that the funds are available to the government at competitive rates of interest. The availability of financial resources to the government at commercial rates of interest will lead to expenditure prioritization and to fiscal discipline in budget making.<sup>65</sup>

The separation of the two functions can also facilitate the regulation and supervision of the secondary markets more objectively by the RBI. The markets in developed countries are generally either regulated by the central bank or a separate independent authority but not by the debt manager, who simply assumes the role of another player in the debt market. The primary dealers, under the contractual arrangement with the debt manager, could continue to be market makers participating in the primary auctions and trading in the secondary market but regulated by the central bank.

There can also arise a conflict in the role of supervising the banks and being the debt manager of government securities. The banks and financial institutions, which are regulated by the RBI, and generally subscribe to market loans, could be under an unstated pressure to make the borrowing program of the government a success. This unstated pressure could impede the discovery of a competitive price as also the genuine demand of securities in the market. The RBI as a debt manager under an agreement with each state government also endeavours to ensure the success of the floatation of each state, despite the insufficiency of demand for some of the bonds. If debt management is separated from the RBI, its supervisory role can be strengthened in terms of defining the composition and weights of government securities or guaranteed bonds in the asset portfolio of the commercial banks. The commercial banks will need to assess the risk and commercial viability of each project and of

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Government borrowing programme, the Reserve bank would have to balance, often times, its internal debt management function with the monetary.” (Paragraph 3.8, Annual report 1999-2000, RBI).

<sup>65</sup> Though Smith (1791) and Ricardo (1951) argue in the context of war finance, the logic can be extended to government expenditure on many projects, which do not result in adequate returns.



each state government before investing in guaranteed bonds. The separation of debt management can also facilitate the retailing of government securities, purely on a commercial basis, by the banking sector. The state government bonds and the guaranteed bonds would have to be traded on commercial basis in such an environment, which will provide incentive to the respective governments to achieve higher credit ratings through better fiscal discipline.

### **5.7: Scope of activities of Separate Debt Management Office in India**

The shift to a separate debt office can be strategized to be gradual. As suggested by Currie, Dethier and Togo (2003), initially all the debt management activities can be consolidated in one office under the Ministry of Finance and only then the issue of separation to an independent office can be considered. First, the internal debt management activities of the central and state governments could be shifted to the debt office followed by external debt. The shifting of cash management of the government in terms of WMA could follow next, and then the contingent liabilities (Magnusson, 199b). The transfer of cash management activity implies that the forecast of the budgetary gap and liquidity management of the government is undertaken by the debt manager, while the central bank can concentrate on the daily management of liquidity in the market.

All the debt management activities, including short-term cash requirements, domestic and external market borrowings, small savings and contingent liabilities should eventually be assigned to a single debt agency, as in the case of UK. The placing of all contingent liabilities in the single debt office will facilitate the scrutiny of issuances, record keeping, risk assessment, pricing, audit and approval by the Parliament. This will help in better coordination of the debt management function, operational efficiency, risk assessment, accountability and responsibility. Finally, cash management of important government undertakings of the government like the railways, post (including collections under small savings) and telecommunications, pension and provident funds, and reserve funds and deposits could be transferred to the debt office if considered appropriate or else, these commercial

undertakings/funds could benefit from the expert advice available within the government sector. The management of pension and provident funds could also benefit from the advice and experience of the debt management office during the period of transition while pension reforms are being undertaken.

### **Section - 6: Conclusion**

The rising trend in domestic debt as a per cent of GDP is a matter of concern, despite the attempted fiscal correction and the success of the financial sector reforms since 1991. The market related rate of interest on government securities has led to the diversification of the ownership pattern and increasing absorption of government securities by the market. The rise in contingent liabilities, however, is an area of concern.

The Central Government and RBI have successfully been able to control the process of automatic monetization by operationalizing the scheme of Ways and Means Advances for the Central Government, similar to that followed by the State Governments, and discontinuing the issuance of *ad hoc* Treasury bills. But the larger issue of the central bank extending credit to the Central Government yet remains. The commitment to the provisions of the Fiscal Responsibility and Budget Management Act 2003, prohibiting the primary market participation of the RBI will help to contain RBI credit to the government. To meet the requirements for open market operations, the RBI would then have to purchase government securities from the secondary market.

The interest rates in the financial markets are converging and the markets are becoming integrated. The interest rate spread between different segments of the market is beginning to narrow down and trading volumes have increased. Thus, debt management functions and practices have developed substantially since 1991, though still being managed by a department within the RBI. In view of the developments in the markets and the commitment on the part of the central government to contain the fiscal deficit, it would be appropriate to consider the

separation of monetary and debt management. The separation would provide the central bank necessary independence in monetary management with neither the need to provide credit to the government nor the responsibility to ensure that government borrowings are incurred at low cost. The government can then ask the RBI to meet an inflation target, as has been the trend in most developed countries and was suggested as one of the pre-conditions for capital account convertibility by the expert committee in 1997.

The task of debt management can now be assigned to a separate agency, preferably under the Ministry of Finance, initially. The assignment of tasks to the debt agency can be strategized, beginning with the debt management operations of the central government. Eventually, in a pre-conceived time frame, management of all debt and cash obligations, of all levels of government should be assigned to this agency for operational efficiency and better coordination. The debt agency can also provide expert advice to public sector undertakings to manage cash and debt obligations. The separation of debt management would provide focus to the task of asset-liability management of government liabilities, undertake risk analysis and also help to prioritise government expenditure through higher awareness of interest costs. The separation of debt and monetary management accompanied with better transparency will enhance credibility of the RBI and the government.

## Appendix - I: Case Studies

### ***A.I.1. Debt Management Office in UK***

Debt Management Office (DMO) in UK took over the responsibility for debt management on April 1, 1998. The objective of the Government's debt management policy is to minimize its financing cost over long term, taking into account the risk, and to manage the daily cash needs in the most cost-effective way (DMO, 2003). Prior to this separation of DMO, the formal objective was to support and complement monetary policy, and subject to this, to avoid distorting financial markets, and to fund the government at least cost and risk.

The Treasury and the DMO, jointly determine the market-borrowing program for the next year, which is outlined in the annual Debt and Reserves Management Report (DRMR). The DMO also advises the Treasury in its selection of an appropriate debt issuance strategy. The DRMR details the breakdown of maturity and instruments, gilt auction calendar, and short-term debt sales, including Treasury bills. The market participants are consulted during the formulation of these plans. The gilt market operates through a primary dealer system (gilt-edged market makers, GEMMs). The GEMMs have certain benefits and a number of market-making obligations. The services of gilt inter-dealer broker (GIDB) are limited to GEMMs and their main purpose is to support liquidity in the secondary market by helping GEMMs to unwind any unwanted gilt positions. The auctions are the exclusive means by which the gilts are issued – multiple for conventional gilts and uniform for index-linked. In addition, DMO may occasionally issue stock through a conversion offer or a switch auction, with the objective to build benchmark securities. The DMO attaches a high priority to risk management and has developed a set of policies to limit its exposure to risk in the achievement of its objectives.

DMO assumed full responsibility for Exchequer cash management on April 3, 2000. DMO estimates significant cash flows into and out of central government on daily basis and then monitors the actual cash flows as they occur. The Treasury also makes

the cash flow forecasts. DMO aims to manage these flows primarily through bilateral dealing in a range of money market instruments (borrow from and lend to wholesale money market participants under bilateral arrangements and also repo/reverse repo) and by the issuance of Treasury bills (weekly tenders) without influencing the interest rates, markets or trading patterns. In its bilateral dealings with the market, DMO is a price-taker. Most of the cash management of the government is completed early in the morning but sizable unanticipated cash movements that take place late in the day are smoothed by bilateral trading arrangements in the money market. The current arrangement of cash management has replaced the Ways and Means Advances Account at the Bank of England (BOE).

DMO has no contact with the Monetary Policy Committee with regard to interest rate decisions. DMO and BOE coordinate their activities to ensure that the operations of DMO do not impact the BOE's monetary policy operations. The BOE acts as DMO's agent for gilt settlement and gilts registration.

The DMO is legally and constitutionally part of HM Treasury. The structure of DMO and its relationship with the treasury is outlined in the DMO's Executive Agency Framework document setting out the DMO's objectives, targets and structural framework for its operations (DMO, 1999).<sup>66</sup> The Minister responsible for the DMO is the Chancellor of the Exchequer who is responsible to Parliament for the work of the DMO. The Chancellor determines the policy and operational framework within which DMO operates but delegate's operational decisions on cash and debt management to the Chief Executive (CE). The advisory board, which meets monthly, advises the managing committee which meets weekly, but its proceedings are not published. The CE, accountable to the Chancellor is appointed, through open competition, for a period of five years. DMO is subject to the jurisdiction of the

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<sup>66</sup> The Framework Document outlines the following – status, aim and objectives; accountability and relationships with the Treasury; accountability to Parliament; role of the permanent secretary to the Treasury and of the Chief Executive responsible for day-to-day management of DMO; internal management of DMO; responsibility for the preparation of the annual business plan, corporate plan and the annual report and accounts; financial arrangements, auditing and human resource policies of the DMO; and review arrangements.

Parliamentary Commissioner for Administration. The CE has to establish an Audit Committee from outside the DMO. DMO is organized into eight business units – Dealing and Investment; External liaison; Policy and Analysis; Settlements; Risk management; Business Services; Operations; and Information Technology. The Business Plan, including the targets, for the year is prepared and published (subject to deletion of any sensitive information). DMO also is expected to prepare and publish every year its Annual Report and Accounts. The budget of DMO is funded through the Treasury’s Parliamentary Vote. DMO is subject to an external audit by the Comptroller and Auditor General and internal audit that reviews the systems of internal control, including financial controls. DMO’s working is subject to regular reviews in consultation with the Treasury and Cabinet Office.

#### ***A.I.2. Debt Management in New Zealand***

The New Zealand Debt Management Office (NZDMO), responsible for managing the government’s debt, overall net cash flows, and some of its interest bearing assets, was established in July 1988. New Zealand was the first country to create a separate debt management office with private sector ethos and as a strategic component of public policy with the focus on risk quantification and management in public debt. Since 1997, NZDMO is a part of Asset and Liability Management Branch of the Government. The objective of NZDMO is to maximize the long term economic return on the government’s financial assets and debt in the context of government’s fiscal strategy and to balance the likely risks incurred in minimizing cost. In terms of managing the government’s debt portfolio, NZDMO adopts a risk-averse approach.

The major responsibilities of NZDMO include financing government’s gross borrowings; settling and accounting for all debt transactions; debt management (domestic and external); cash management; risk management in accordance with the fiscal strategy; facilitating and executing derivative transactions; disbursing cash to government departments and facilitating departmental cash management; undertaking lending to government organizations and state owned enterprises; providing advice to New Zealand Treasury, government departments, government

organizations and capital markets; and maintaining relationships with investors, financial intermediaries, and credit-rating agencies.

NZDMO is committed to transparency, neutrality and even-handedness which it believes helps in lowering the cost of borrowing by reducing price uncertainty and encouraging competitive bidding, and that these gains outweigh short-term gains available through opportunistic borrowing in the domestic market. The annual auction calendar with annual requirement, dates and size of the auctions ensure transparency, while neutrality and even-handedness is promoted through the auction process - conventional bonds through multiple price auction and indexed bonds through uniform price auction

NZDMO coordinates with other parts of Treasury and follows the principles set out in The Fiscal Responsibility Act, 1994. The Reserve Bank of New Zealand (RBNZ) and NZDMO have a close working relationship, which is formalized in agency agreements. An agency agreement clearly delineates the responsibilities of both organizations, including the action in the event of foreign exchange intervention. The RBNZ acts as NZDMO's issuing agent, registrar, and paying agent in the domestic market. RBNZ conducts auctions of Treasury bills and government bonds on NZDMO's behalf, but NZDMO retains the responsibility for pricing decisions. RBNZ also disseminates information on government securities. RBNZ also offers advice to NZDMO on the borrowing program of the government, market conditions and preferences based on its network as well as periodic surveys. An important provision in the agency agreement is that all functions carried out by RBNZ as agent for NZDMO are conducted without reference to monetary policy considerations.

The Secretary of the Treasury is directly responsible to the Minister of Finance for the working of NZDMO. The head of NZDMO is a Treasurer who reports to Deputy Secretary in-charge of Asset and liability Management Branch. The Advisory Board oversees the operations of NZDMO and provides the secretary with quality assurance of activities of NZDMO. The responsibilities of NZDMO are not codified

in legislation but it operates independently, as a matter of custom. The NZDMO has three major Groups with separate front, middle and back office – Portfolio Management, Risk, Policy and Technology, and Accounting and Transactional Services, with legal and administrative services being provided within Treasury. The information management system integrates the front, middle and back offices. NZDMO has not found necessary to introduce primary dealers or market makers to assist with the distribution of government securities.

### ***A.I.3. Swedish National Debt Office***

Sweden has a separate debt office, Swedish National Debt Office (SNDO), since 1789 but a major reform was undertaken in 1998. The core principles and rules for debt management are given in the legislation enacted by parliament in 1998. The Act specifies the objective to borrow and the government delegates the mandate to borrow to SNDO. The objective of debt management is to minimize long-term costs while taking risks into account and taking into consideration the operations of the monetary policy. The guidelines for debt management, after accommodating the comments of Riksbank, have to be prepared annually. The government has to submit an annual report on debt management to parliament, which is also released to the public. The guidelines give three year rolling plan, consistent with the time frame used in budget making. The government during the year can change the guidelines if circumstances so desire, but this is done through amended guidelines, which then become public documents. Swedish law requires the government to evaluate the management of central government debt in a written communication to the parliament. Evaluation is both quantitative (comparing the actual cost with that provided in the guidelines) and qualitative (performance on daily basis, including market maintenance).

In the gilt market, SNDO has taken an active role in the development of the market. The strategy is to concentrate on borrowings in a few large issues. Bond auctions are biweekly, and auction and volume are announced a week in advance. SNDO has three separate dealer systems, one each for nominal bonds, treasury bills and



inflation-linked bonds. The authorized dealers are committed to enter bids on behalf of investors. Repo and reverse repo are regular features of the operations by SNDO. SNDO also undertakes cash and guarantees management for the government.

The advisory board of SNDO, consisting of external members (half of them are members of parliament), makes strategic decisions while the operational management is conducted by SNDO, led by director general, appointed by the government. The board monitors and evaluates the operational aspects of debt management and reports directly to the government. There is clear organizational separation between front, middle and back office. In addition, the internal audit department directly reports to the board. The government funds the SNDO. SNDO makes hiring decisions and establishes the salaries of all employees, other than the director general and the deputy director general (where the government sets the compensation).

## **Appendix – II: Salient Features of a Debt Management office<sup>67</sup>**

### **A.II.1: Governance**

The legal authority to borrow in the name of the central government generally rests with the parliament or congressional legislative body and in most of the cases limits on borrowings are prescribed. The public debt management functions are increasingly being centralized either in a separate department under the Ministry of Finance (MOF) or in an independent agency reporting directly to the Minister of Finance or to a Council of Ministers, for reasons of accountability to parliament and the link with the budget-making office (Carracedo and Dattels, 1997).

### **A.II.2: Scope**

The scope of debt management encompasses the domestic financial obligations of the government and the trend is to include all types of government debt under a single agency - sub-national governments, external debt, cash management and contingent liabilities. The concentration of all debt management activities in a single agency helps in lowering the costs of raising resources, better coordination and risk management. It also facilitates gathering of information and analysing market intelligence for understanding the needs of different components of the market – designing of instruments, preparing a maturity profile of debt, introducing suitable regulatory provisions, and developing a compatible infrastructure for overall debt management.

### **A.II.3: Clear Objectives**

In the provisions of the legislation itself, generally clear and detailed objectives for debt management are delineated. Clarity and transparency in debt management objectives makes the debt manager more accountable and less susceptible to political pressure that may result in sub-optimal debt management policies. The clarity and transparency helps to reduce uncertainty among investors and intermediaries and

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<sup>67</sup>I have benefited from discussions with Magnusson, T.I. (World Bank), Olden, B., Thomas, T. and Filipsson, M. (IMF), Giavazzi, F. (Universita Bocconi, Italy), and Goldfajn, I. (Central Bank, Brazil).

enhances the confidence of the market in debt management initiatives. Clarity in the role and objectives of the debt management office also helps to minimize the potential conflicts between monetary, fiscal and debt management policies. The objectives vary across countries – minimise long-term borrowing cost (Australia, Belgium, Denmark); debt management subject to constraint of monetary policy (Sweden, UK); maximise long-term economic return on the government’s financial assets and debt, given the fiscal strategy and risk aversion (New Zealand); and meet the fiscal requirements of the government as also to protect liquidity, contain the costs and exposure to risks, and outperform a shadow portfolio or benchmark (Ireland). Some countries prescribe strategic targets for components of debt management policy – currency composition (Australia, Belgium, Denmark, New Zealand, UK, USA); interest rate in terms of fixed and floating (France, Italy, New Zealand) and in terms of modified duration (Australia, Belgium, Denmark, Italy, Sweden); and refinancing requirements (Denmark, Sweden). The management of debt takes place within the framework imposed by monetary policy requirements.

#### **A.II.4: Organization of the Debt Office**

The organizational framework for separate debt management agency is precisely specified, has a legal authority to represent the government, and the roles and mandates of important functionaries are well articulated. The legislation generally defines the administrative process for debt management, including specification of the function, procedure for record keeping, frequency of reporting to the authorities and dissemination policy to the public.

The debt management office is generally provided with a sufficient degree of functional autonomy to fulfil its mandate without political pressure. Such autonomy is permitted along with the requirement that the debt management office be accountable, and transparent in its operations, procedures and results. The activities of the agency are supervised by a special advisory board, which provides guidance on strategic and technical issues to the chief executive of a separate agency, regularly monitors its activities and reports directly to the concerned authority. The board is

generally expected to spell out the strategy for undertaking such activities as benchmarking of securities and their size, introduction of new instruments, and major policy developments. The advisory board could also earmark some risk limits relative to agreed benchmarks for the chief executive to track. The constitution and functioning of the advisory board lends credibility to the operations, which is necessary for robust market expectations (Calvo, 1988; Diamond and Dybvig, 1983). The membership of the advisory board is generally broad based with representatives from the government, market, academia, and the central bank, to function in a transparent and effective manner. The tenure of the members is generally long, and expiry of the term is on a rotational basis to provide consistency to policy and strategy of debt management.

The chief officer executes the operational aspects and the office is mainly organized as an independent entity covering operational work, policy and planning, risk assessment, regulations and audit. The front office is responsible for resource mobilization, executing transactions in financial markets, including the management of auctions and other forms of borrowing, and all other funding operations, including guarantee operations, hedging, and derivative transactions of the government. The middle office undertakes risk analysis and assesses the performance of the debt managers against any strategic benchmarks. It also undertakes portfolio analysis, develops a risk management strategy, formulates a borrowing policy – annual and long-term, assesses and manages different types of risks, and compares the emerging debt indicators with agreed benchmarks. The debt managers undertake extensive research studies and prepare alternate debt scenarios to ensure that the rate of growth and level of debt is sustainable over time and can be serviced under a wide range of circumstances while meeting cost/risk objectives. The back office handles the settlement of transactions and the maintenance of financial records (debt registry, disbursements, and debt-service payments). Disaster recovery plans are an important component of any debt management office.

The overall debt management activity is supported by an accurate and comprehensive management information system (MIS) with proper safeguards, including accurate debt recording and reporting systems. The MIS is expected to capture all relevant cash flows, with up-to-date reporting of servicing and redemptions, ownership pattern and maturity profile of government securities, and is expected to be fully integrated into the government's accounting system.

#### **A.II.5: Policy and Planning**

The policy and planning unit is considered the most important component of the debt management office as it has to forecast the budgetary gap, and then to plan for the currency mix, maturity profile, indexed or nominal issues, and the type of auctions. The borrowing requirement is a function of the flows of government revenue and expenditure over time. The forecasts of the budgetary gap on daily, weekly and monthly basis help to optimise cost-effective arrangements for financing temporary imbalances or long-term deficits. The maturity mix of government securities would need to be assessed, based on the fiscal situation, market conditions and the expectations of investors. Long-term bonds are preferred to stabilize the market while large issuance of short-term bonds would raise the refinance risk. Giovannini (1997) argues that longer the maturity, greater is the gain from debt deflation. The other issue is the choice between nominal and indexed bonds, and domestic and foreign bonds. Barro (1999) argues that short-term nominal bonds can lessen the impact of inflation on the budget, but then shortening the maturity enhances the sensitivity to variations in real interest rates. Bohn (1988) shows that conventional nominal bonds provide a hedging device against shocks and help to smooth tax rates while Bohn (1990) argues that changes in the price level have a greater impact on long-term nominal bonds than on short-term bonds.

Theoretically, long-term index-linked bonds minimize costs and are preferable to nominal bonds and foreign currency debt (Barro, 1999); empirically, Australia, Canada, New Zealand, Sweden, UK and USA prefer such bonds (Barro, 1995 and 1997; Shiller, 2003). The issuance of index-linked bonds indicates that the

government does not intend to inflate which helps to stabilize the markets (Giovannini, 1997).<sup>68</sup> Barr and Campbell (1996) show that better inflation forecast could be obtained from the index-linked bonds, which is useful information for the debt manager and the central bank.<sup>69</sup> However, pricing of the index-linked bonds is difficult and therefore trading in the market is generally restricted.<sup>70</sup> The absence of index-linked loans/advances in the portfolio of the banks and financial institutions could be another reason for lack of interest in index-linked bonds in some countries. McCray (2002) reports mixed experience on the performance of indexed bonds, based on the survey of some OECD countries – satisfied (Iceland, France, UK and USA), uncertain (Australia, Canada, Sweden), and disappointed (New Zealand) - while Kleiman (1988) observes that indexation significantly reduced the economic effects of inflationary uncertainty in Israel. Miller (1997) shows that foreign currency denominated debt is useful if foreign and domestic economies are positively correlated. The requirements of market participants in different countries would differ depending on the level of development of the financial markets, regulatory and supervisory specifications for the major investors, banking facilities and the social security system, which the debt office has to factor into its policy formulation.<sup>71</sup> The banks and financial institutions that are supervised entities assign different weights to different debt instruments.

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<sup>68</sup> In Chile and Israel, where inflation-indexed securities accounted for 89 per cent and 66 per cent, respectively, of the total outstanding securities as at end-2000, the objective was to signal the commitment of the government to its anti-inflationary strategy (Mihaljek, Scatigna and Villar, 2002).

<sup>69</sup> ECB (2004) also gives the method of computing inflation expectations from the index-linked bonds.

<sup>70</sup> In view of the fact that inflation-linked bonds indicate a commitment to a low inflation regime, these could be useful in inflation targeting countries. In an economy where, historically, the inflation rate is not restricted to a narrow band, and which has not adopted the inflation target approach, pricing would be difficult and trading limited.

<sup>71</sup> In the Indian market, the banks typically require relatively short-term securities with a fixed nominal return, a liquid market with a short settlement time, and therefore a wholesale, dematerialised payments and settlements system is suitable. Non-bank financial institutions typically have a medium-to long-term time horizon. They may prefer a mix of fixed-cash-flow and zero-coupon discount bonds to meet their long-term liabilities. Insurance companies prefer long term bonds while provident and pension funds may prefer indexed securities. Resident corporates would like a short-term risk-free instrument while individuals opt for a medium-term horizon to invest their personal savings and may also prefer non-tradable securities (post office saving certificates). Non-residents would focus on reserve currencies while some investors may seek arbitrage opportunities. Such investors will prefer liquid markets with quick payments and settlement systems.

Though, theoretically, all types of auctions yield similar results, in practice, different auction systems are preferred in different countries depending on the development of the financial markets, prevalence of institutional investors and market conditions. In a well-developed market, multiple price auctions may be preferred but in a developing market, a uniform auction with no winners' curse may be attractive. Similarly, in the case of conventional instruments and in normal market situations, multiple price auctions may be preferable while a uniform auction may be used for non-conventional instruments, (e.g. indexed bonds), or when the markets are volatile.

In different market conditions, the horizon for debt issuance is generally weekly, monthly or quarterly, depending on the cash flow of the government and the needs of investors. While very short term swings in government requirements are met through the overdraft facility from commercial banks or even the central bank, medium to long-term requirements are met from the market. To avoid refinancing risk, a manageable size of each issue is floated.

The other important issue is the assessment of risk which depends on the size of government debt, maturity profile and currency composition. The most important risks, which are required to be managed, are market, liquidity and refunding risk, followed by credit, operational, legal, political and reputational risk. In some countries, limits on the deviation from the benchmark portfolio have been prescribed to contain risk while in others passive debt management policy is pursued. The debt management office develops the risk management policy and the tolerance limits are generally approved and set by the responsible minister or secretary (Financial Markets Division, 2002). A number of debt managers use derivative products (currency and interest rate swaps, forward contracts, futures and options) to contain the risks and adhere to the prescribed benchmarks (Cassard and Folkerts-Landau, 1997).

### **A.II.6: Audit**

External auditors or government's audit agency regularly audit the activities of debt management annually, which are then made public according to a pre-announced schedule. In the case of New Zealand, the audit is quarterly. Internal audit of debt management activities is regularly undertaken and reports are directly submitted to the supervisory board.

### **A.II.7: Financial Markets**

Debt managers have an obligation to assure that the financial market is functioning smoothly and efficiently, characterized by liquid and deep markets, so as to minimize debt-service costs (Piga, 1988). The existence of an efficient financial market is important for various reasons – *(i)* financing needs of the government can directly be met from the market rather than from the central bank, *(ii)* borrowings can be raised by the government in its own currency and exchange risk can be avoided, *(iii)* domestic borrowers are able to access resources, even in times of global financial instability, and *(iv)* debt management decisions are not perceived to be influenced by inside information on interest rate decisions.

#### **A.II.7.1: Primary**

The central bank generally undertakes the government market-borrowing program as an agent of the government. Adopting market-based methods for the primary issuance of government debt helps in the development of primary market. In the primary issuance, announcement of a reasonably stable and explicit calendar lends credibility to debt management and lowers the cost of borrowings (Piga, 1998). The calendar would depend on the forecasting capabilities and planning process. The need for computerized auctioning mechanism and accounting system involving registration and payments also play an important role in the development of primary market.



#### A.II.7.2: Secondary

The development of secondary market is important for the debt manager, especially when government borrowing is substantial and professional and institutional investors dominate the market. A well-developed secondary market ensures liquidity of investment and setting of prices on daily basis for risk evaluation purposes (Piga, 1998). Ideally, the debt manager provides electronic clearing and settlement system to guard against counterparty risk. This function is generally coordinated by the central bank to ensure security and development of delivery-versus-payment system. The central bank is generally the depository, operating the book-entry system.

#### **A.II.8: Primary Dealers**

In many countries, the institutional arrangement of establishing dealers in government securities has helped to develop the primary market. Primary dealers are useful as advisers to the debt manager and provide crucial feedback from the market. The primary dealer's network can also be a useful market maker providing two-way quotes on government securities in the secondary market.

#### **A.II.9: Coordination Committees**

The function of debt management requires close coordination between monetary, debt and fiscal policies. Therefore, the sharing of information and consultations between the debt management office, government, central bank and market participants is very important. The coordination between the central bank and debt manager has to focus on the cash management program and the schedule of Treasury bill and long dated borrowing program being undertaken. The central bank generally continues to be the fiscal agent of the government. The central banks in many developing countries also supervise and regulate the financial markets and therefore have important information to share with the debt manager. The development of the secondary market for debt instruments is also the primary responsibility of the debt manager and the central bank. The debt manager would be operating in various

segments of the secondary market but the central bank generally would operate at the short end through the overnight interest rates.

The objective of close coordination is that the activities of the central bank and debt manager should not be providing conflicting signals to the market and should be operating independently and exclusively. Therefore, the borrowing program and various scenario analyses for debt management prepared by the debt manager are generally reviewed by the central bank before finalization. The risk structure of the government debt is also discussed with the central bank, as it is generally responsible for the supervision of the banks and other financial institutions – major investors in government securities. The central bank continues to be the regulator and supervisor of the market while the debt manager assumes the role of a primary dealer of the government.

#### **A.II.10: Regular reporting to the Treasury**

The debt office is required to prepare a regular (weekly/fortnightly/monthly) consolidated funding report for the Treasury, in which credit risk, market risk and funding risk on borrowings are discussed. The report includes details about the completed borrowing program, deviations from the estimated targets, sensitivity analysis and the trajectory for the ensuing period. This information is also shared with the central bank.

#### **A.II.11: Dissemination Policy and Activities**

In many countries with developed government securities market, a borrowing calendar for both the money and gilt market, along with the total target amount to be borrowed is disseminated in the beginning of the year to provide certainty to the borrowing schedule and to help the market participants to plan their investment. This annual calendar may be indicative and a precise calendar may be issued quarterly or monthly. The mode of auction - multiple or uniform, for different instruments - is also indicated along with the calendar to minimize uncertainty for the market participants. The debt management office regularly publishes comprehensive

information after every auction/borrowing event (swap, switch) to avoid any information asymmetry as also the quarterly/annual report of all activities undertaken during the period.

**A.II.12: Staffing Pattern**

The staffs of the separate debt office is subject to a code-of-conduct and conflict-of-interest guidelines regarding the management of their personal financial affairs, to allay fears of the market participants and the investors that personal financial interests may undermine sound debt management practices.

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