GROWTH OF TOTAL INTERNAL DEBT IN INDIA: DIMENSIONS AND IMPLICATIONS

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I hereby affirm that the research for this dissertation titled "Growth of Total Internal Debt in India: Dimensions and Implications" being submitted to the Jawaharlal Nehru University for the award of Master of Philosophy in Applied Economis, was carried out entirely by me at the Centre for Development Studies, Trivandrum.

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Certified that this dissertation, the bonafide work of Charan Singh, has not been considered for the award of any other degree by any other University.

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INTRODUCTION

Public debt as an important instrument of public finance policy is of a relatively recent origin but has already assumed great significance. Though its origin can be traced back to war finance, it has only recently become an integral part of the fiscal and monetary policies of the developed as well as the developing countries. The rising internal debt in the case of most of the developing countries has given rise to a number of growth related issues. Earlier, during the war years these issues had assumed significant public importance in the leading economies of the world. The reasons for the rising importance of internal debt in the present conditions are different from those experienced by the war-ridden economies and so also are the issues.

Public borrowing in India now is a recognised source of public finance. Article 292 of the Constitution of India empowers the Union Government to borrow upon the security of the Consolidated Fund of India within such limits, if any, as may be fixed by the Parliament by law. The provisions embodied in Article 292 of the Constitution are permissive and not mandatory. No ceiling on public debt has been prescribed so far. Under the Public Debt Act, 1944, as amended from time to time, the responsibility of the management of the public debt of both the Central and State Governments rests with the Reserve Bank of India. In the Government of India, the Department of Economic

Affairs, Ministry of Finance deals with matters related to public debt.

The public debt of the Government of India consists of internal debt and external debt. Internal debt comprises loans raised in open markets, Treasury bills, special securities issued to Reserve Bank, Special floating loans and compensation and other bonds. Besides these the Government has other liabilities on account of funds raised through Small Savings Schemes, 5-year Time Deposits, Provident Funds and Reserve Funds and Deposits. External debt comprises loans and credits made available on concessional, semi-concessional or commercial terms by multilateral development banks, donor countries, bi-lateral arrangements, specialist United Nations agencies, and by commercial banks, either directly or through syndicated arrangements.

Total Internal debt of the country has risen from 67 per cent of total debt in 1970-71 to 82 percent in 1980-81 and 88 per cent in 1987-88. The total internal debt of the country is nearly 68 per cent and interest payments on this debt about 4 percent of the National Income. These ratios were 33 per cent and 0.73 per cent respectively, when development planning was initiated in the country. Interest payments on total Internal Debt accounted for nearly 20 per cent of Revenue Expenditure and was equal to 25 per cent of Revenue Receipts during 1987-88. But the significance of this fiscal instrument of debt has yet to be systematically analysed both in composition and implications in the context of Indian economy.

The total internal debt of the Government of India has risen from Rs.2,872 crores at the end of March 1951 to

Rs.1,71,134 crores at the end of March 1988 and the interest payment obligation has risen from Rs.64 crores to Rs.10,274 crores over the same period. The dependence on debt has perceptibly increased since 1980. The total internal debt has grown more than fourfold over the eight year period from Rs.40,252 crores at the end of March 1980. The Fifth Five Year plan proposed 39.1 per cent financing by domestic borrowings, this rose to nearly 43.5 per cent for the Sixth plan and is estimated at 48.4 per cent for the Seventh plan. However, during the first three years of the Seventh Plan, domestic borrowings accounted for nearly 65 per cent of the total outlay.

In India the rising total internal debt has initiated a debate amongst the economists as to the virtues of public borrowing and has led to the concern that the country may be heading for an "Internal Debt Trap" i.e. a situation in which borrowings may have to be increasingly resorted to ,to just keep up with the servicing of debt. A fear has been expressed that given the current trends of public borrowing, by 1992-93 a situation may emerge that the annual market borrowings may not be even enough to meet the expenditure on the interest payments. The Report of the Comptroller and Auditor General of India, for the year ended March 31,1987 observes, "It is estimated that during 1988-89, the market borrowings of Rs.7000 crores would barely be sufficient to meet the interest payments of Rs.7,027 crores on Internal debt alone". This seems to suggest that the country has already stepped into the debt trap.

This study attempts to probe into the subject of total internal debt of India more closely. The objective of the study is, in brief, to probe into the rising trend and the implications

that would follow from such rapidly rising internal debt. The objective can be more rigorously delineated as follows

(1) To define the dimensions of total internal debt and its rising importance in the public finance of the country,

(2) To determine the causes of this high growth of total internal debt,

(3) To determine the composition of the total internal debt and the emerging important components,

(4) To analyse the implications of the ownership pattern and the maturity pattern of total internal debt, and

(5) To determine the trend of interest payments on total internal debt and its effect on the economy,

Scope of the Study

It is important to mention that the scope of the study is restricted to the Total Internal Debt of the Central Government only. This is because the Total Internal Debt of the Central Government is very large, more than eight times the internal debt of all the States and Union Territories, net of the loans and advances received from the Central Government. Therefore the exclusion of the States and Union Territories from the scope of the study will not affect the validity of the results and conclusions of this study.

The study defines Total Internal Debt as consisting of market loans raised in the open market, compensation and other bonds, floating and other loans issued to international institutions, Treasury bills, special securities issued to Reserve Bank of India, small savings, provident funds, reserve

funds and deposits and other accounts. This definition of Total Internal Debt is more inclusive than followed by the Government of India and the Reserve Bank of India who define Internal Debt as consisting of market loans, Treasury bills, compensation and other bonds, floating and other loans and special securities issued to RBI. Small savings, provident funds, reserve funds and deposits and other accounts are referred to as 'other obligations' and these along with internal debt constitute Total Internal Obligations of the Central Government. Our definition of Total Internal Debt corresponds to this classification of Total Internal obligations. However, for the sake of consistency, the term 'Internal Debt' as defined by Government of India is also used in the study. The nomenclature 'Total Internal Obligations' has been changed to 'Total Internal Debt' to emphasise that these small savings, provident funds, reserve funds and deposits and other accounts are as much a part of financial resources mobilized and obligations incurred, as are the market loans or Treasury bills or compensation and other bonds. In economic literature on Internal debt, these so called 'other obligations' of the Government are included in the concept of 'Internal Debt'. Hence the usage in this study. Thus for the purpose of this study, Total Internal Debt is Total Obligations of the Central Government net of external debt.

The period of this study spans over 38 years, from 1950-51 to 1987-88.

Data Base The study draws data from Reserve Bank of India's and Government of India's publications. The major sources of data have been Report on Currency and Finance, and Monthly

Bulletin, both publications of the Reserve Bank of India and Finance Accounts, Government of India. In the case of data gaps, other sources like the Budget of the Central Government (Explanatory Memorandum to the Budget), and Economic Survey were also referred. The data from the Economic and Functional Classification of the Central Government Budget, a publication of Ministry of Finance, Government of India was also used.

Scheme of the Study In debt management, it is important to know not only the volume of debt but also the composition, the ownership and maturity pattern and the interest burden of this debt. The composition of debt reflects the absorptive capacity of the various investors to the various instruments through which domestic borrowings is incurred. The composition and the ownership and maturity pattern are interrelated. Given the composition, the different investors would hold different instruments which would have different implications on the monetary stability in the economy. Similarly, given the composition, different instruments have varying maturity patterns which would again have implications on the monetary stability in the country. But the ownership as well as the maturity pattern is influenced by the interest rates on various instruments. Instruments with a short term maturity have lower rates of interest whereas with longer maturity have higher rates of interest. The Government, according to its needs and its expectation of the absorptive capacity of the market floats various instruments with varying rates of interest to mobilise financial resources. Thus the composition, ownership and maturity pattern are inter-related and are influenced by the

interest rates offered on the instruments. The chapter scheme in the study has accordingly been planned. Chapter 2,(Review of Literature), provides an insight into the various theoretical issues pertaining to total internal debt and also sets a theoretical perspective for the rest of the following chapters. In chapter 3, total internal debt is defined and its trend analysed vis-a-vis the national aggregates and other instruments of public finance. A discussion on causes of rising expenditure leading to a rise in internal debt follows. In chapter 4, analysis of the composition of total internal debt is attempted and the trend for each component is separately probed. In chapter 5, discussion of the trends and monetary implications of the ownership and the maturity pattern of the total internal debt are presented. The empirical analysis of the implications of ownership pattern follow in chapter 6. The rise in total internal debt would logically lead to rising interest payments. The trends in the interest payments are discussed in chapter 7. Chapter 8 presents summary and conclusions drawn from the study.

This study reveals that the total internal debt as well as net total internal debt has been rising at a high rate especially since 198Ø. The increase in total internal debt is due to the rising non-developmental and non-capital formation expenditure unmatched by revenue receipts. The increased requirements of funds by the Government led to increased borrowings from Reserve Bank of India and the banking sector over the time period, though increased borrowings did emerge from sources like small savings and provident funds. Such large scale borrowing has implications on the monetary stability in the country. Our results show that borrowings from the Reserve Bank

leads to increase in money supply and price level where as the borrowings from commercial banks primarily reallocates resources between the Government and the private sector. Also, borrowings from individuals in the form of small savings and provident funds have a dampening effect on the price level and should be encouraged as it mops up purchasing power from the hands of the public. But already, the interest rates offered on small saving instruments are very high compared to other Government securities and the need to rationalise these is being felt. The interest burden is rising particularly since 1980-81 and does call for remedial measures and rationalisation so that flow of funds to the Government comes from the public instead of the institutions.

Chapter 2

REVIEW OF LITERATURE

The important role of public borrowing in economic development is a relatively recent phenomenon and has much to do with the collapse of the principle of laissez faire, the rise of modern welfare states and the imperatives of accelerated economic development of a considerable part of the world.(1)

This chapter reviews the literature on public debt. An attempt has been made to analyse different aspects of public debt viz. definition, classification and analytical issues like the concept of burden of debt and the related controversy, effect of debt on inflation and the limit of debt. The concept of burden of debt and the related controversy has been discussed in detail as this issue, probably, has been most widely debated by the economists over the last two centuries. In addition, during the course of discussion on the burden of debt many related issues emerge which have been then considered.

Definition

Public debt has been variously defined but all definitions converge to the view that this is a fiscal instrument required to bridge the gap between the revenue and the expenditure. Taylor defines public debt as, "Government debt arises out of borrowing by the Treasury from banks, business organisations and individuals. The debt is in the form of promises by the Treasury to pay the holders of these promises a

principal sum and in most instances interest on the principal. Borrowing is resorted to in order to provide funds for financing a current budget deficit.''(2)

Classification of Public Debt

Public debt has been classified in various ways. Some of the important classifications are as follows:

Voluntary and Compulsory:

A distinction is generally made between a voluntary and a compulsory loan. In the case of the voluntary loan, as the name implies, there is freedom to subscribe for Government securities whereas in the case of compulsory loans there exists an element of coercion. The voluntary loans may not be sufficient during periods of emergencies, wars, famines, etc. and these situations may compel the Government to resort to compulsory borrowing. Compulsory loan is also known as 'refundable taxation, because like a loan, Government promises to repay the sum of the loan with little or no interest to the contributors and like taxation it is compulsory contribution to the Government, which is fixed by the law on the conditions which may not voluntarily be acceptable to the contributors. Prof. Pigou also emphasised that in the case of compulsory loan, the terms are arbitrarily fixed embodying "a rate of interest substantially less than would be required to secure a voluntary loan. This device is really a cross between a voluntary loan and a tax .... . More generally, it would seem that, by a suitable combination of taxes and voluntary loans, it must always be possible to achieve a result substantially equivalent to that offered by a forced loan. There

is, therefore, nothing to be gained by resort to that device unless, indeed, public opinion, usually very hazy on these matters, is of such a character as to make it politically expedient".(3)

Productive and Unproductive

This classification emphasised by Hicks is based on the use of borrowed funds whereby public debt is categorised as, (1) Dead-Weight debt arising in the financing of such wasteful expenditures, such as wars, which do not cause any increase in the productive capacity of the community, (ii) Passive debt is created in financing beneficial pubic works and services that however do not return revenue or increase the productivity of labour and capital,and (iii) Active debt in financing self-liquidating and capital improvement projects, services such as public education and health, the development of natural resources, which directly or indirectly increase productive resources and community income.(4). Accordingly, productive debts are those which are incurred for such assets that yield revenue to the Government. This revenue may be used to repay the debt and therefore debt borrowed for such purposes is called productive debt. Unproductive debts are those which are incurred for purposes which do not yield any direct income to the Government.

This classification is not very popular as the Government expenditure may not result in an income stream but can still enhance the social welfare of the society. As Bhargava explains "Sometimes expenditure that does not produce revenue might be more essential and productive of greater welfare, for example,

expenditure incurred to check epidemics or famine relief or to fight a war to defend the freedom of the country. Public debt incurred for financing expenditure of this type is really more productive of welfare....it is not correct to call public debt incurred for these purposes as unproductive".(5)

Redeemable and Irredeemable Public Debt

The maturity pattern of the debt serves as a basis for this classification. The redeemable debt, also called terminable debt, envisages repayment of the principal amount on a particular date. On the other hand, the irredeemable debt has the provision of regular payment of interest for an indefinite period but the repayment of the principal amount is at the option of the Government.

Funded and Unfunded Debt

This classification is based primarily on duration of the debt. Funded debts or long term debts are repayable after a year or more, whereas unfunded debts are incurred for a comparatively short term and must be repaid within a year. The unfunded debts are generally used for temporary purposes and permit the Governments to secure funds at low rates of interest thus reducing the cost of mobilizing funds.

Internal and External Debt

This classification is according to the place of floatation of the loan. Internal Debt refers to public loan which is subscribed entirely by the people of the country and the repayment is also made in the domestic currency itself. The

Government can borrow from the central bank of the country, commercial banks, financial institutions and individuals. External debt refers to borrowings in the foreign country from individuals, Governments, financial institutions and banks with repayments being generally made in foreign currency.

Analytical Issues

Three major analytical issues have been discussed. These are, firstly, the burden of public debt and the related controversy, secondly, the effect of debt on inflation and finally, the limit of public debt.

A. The Burden of Public Debt Controversy

The burden controversy is amongst the oldest subject of academic discussions on public debt. It pertains to the question whether the growing public debt is a net economic burden and can this burden be transferable. The controversy seemed to have reached its logical conclusion following the Keynesian revolution but it once again arose in the 196Ø's when controversial views regarding the burden of debt were expressed. We briefly summarise the controversy in the following paragraphs.

Concept of Burden of Public Debt

The literature on public debt generally revolves around the concept of 'burden of debt'. The term 'burden of the public debt' is ambiguous, though attempts have been made to define it by economists like Dalton(6), Buchanan(7), Bowen-Davis-Kopf(8), etc. but still there is no unanimity on the definition. The term

continues to be defined as per the requirement of one's analysis. Generally, a distinction is drawn between financial or primary burden and real or secondary burden. The term financial burden refers to the effects of the interest charges and the consequent increase in the level of taxation (9). The real burden refers to the repercussions on the economy, caused by the rising debt, in the form of adverse effects on the capacity and willingness to work and save. As Lerner explains, 'An increase in the national debt can make the owner of Government bonds less willing to work. One of the reasons to put away for the rainy day is weakened....because there is more put away already for the rainy day".(10)

The concept of burden of debt is also explained in terms of abstinence and opportunity costs. When a loan is obtained by the Government, resources are transferrred from private hands to Government and those who contribute to Government loans abstain from consuming current income. This may be called a burden caused by the incurring of public debt. On the basis of opportunity costs, burden of debt is considered to be imposed when Government raises loans and thereby prevents people from investing their financial resources into other purposes where the marginal productivity might be more. However,if people voluntarily contribute to public loans then the concept of burden based on the notion of abstinence and opportunity costs is not acceptable.

In the case of internal debt, there is considered to be no direct financial burden or benefit as all the money payments cancel out as the debtors and creditors are within the same community. Hence, all transactions connected with internal debt

resolve themselves into a series of transfers of wealth within the community. However, internal debt does involve direct real burden or direct real benefit to the community, according to the nature of the series of transfers from tax payers to public creditors depending on the fact that the transfers increase or decrease the inequality in income distribution. This, however, depends on the incidence of taxation on the one hand and ownership pattern of the public securities on the other.

The Mercantalists and the Classical Views on the Burden of Public Debt

In the eighteenth century, public debt was favoured by the economists as they had great faith in the role of the State in economic activities and their favourable attitude towards public debt was a part of the Mercantalist doctrine. However, in the laissez-faire state of the nineteenth century and the early part of the twentieth century, public debt was condemned by the classical economists because of their lack of faith in the role of the State. The State was expected to play the bare minimum role of administration, defence and management of currency and the size of the Government budget was preferred to be low. The classical economists postulated that taxes had an adverse effect on consumption as also on the ability and desire to work, save and invest while internal borrowing led to a reduction in private capital formation. It may specifically be mentioned that the classical economists, though severely opposed to increasing public expenditure, make out a case for public borrowing only for productive purposes and permanent improvements but not for current consumption purposes. To quote Pigou "... for enterprises

that are not expected to yield a money return, loans should not be resorted at all".(11). Thus Bastable wrote,"Non-economic (i.e.non-remunerative) expenditure is primarily to be met out of income and unless it can be so dealt with ought not to be incurred. Prudence seems, accordingly, to suggest that borrowing should hardly ever be adopted except for strictly economic expenditure and then only when the extension of the State domain is clearly advisable".(12) This favourable attitude towards public borrowing for productive purposes was because, firstly, the improvements were considered to be extraordinary in character; secondly, they were not expected to re-occur; thirdly, they seem to have no relation to the necessities of the fiscal year in which they happened to occur; fourthly, the objects in each case were tangible things and finally such expenditures are expected to benefit future generations as much as present generations. Pigou suggested that during the war and other calamities, resorting to internal debt is more useful than imposing taxes.(13). Adam Smith, however, was against raising debt, even debt raised for wars and he believed that public borrowing encouraged the sovereign to wage needless wars. On the other hand, if taxes were raised to meet current costs, "wars would in general be more speedily concluded and less wantonly undertaken".(14) . Other economists like Say(15) and Ricardo(16) were also vehemently opposed to debt. Ricardo stated in British Parliament in June 1819, "National Debt was an evil which almost any sacrifice would not be too great to get rid of.''(17) Similarly, subsequent thinkers like Malthus(18) and Mill(19), though liberal in their views about debt, opposed it on the grounds that it was wasteful and unproductive. The classical

economists believed that debt burden could be shifted to future generations.

The Modern View on the Burden of Public Debt

The position of public debt in modern finance shows a radical departure from the laissez-faire notions of the classical economists. The modern theory of public debt is the offshoot of depression finance or the Keynesian economics which brought about a change in the role of public borrowing in the field of public finance. Keynes held the view that increase in public debt leading to higher expenditure by the public authorities would raise the national income through the multiplier effect. Keynes justified the actions of the Governments to borrow for all purposes and maintain a higher level of expenditure so that effective demand in the economy may increase and thus employment and output may also increase. Keynes observed, " I lay overwhelming emphasis on the increase of national purchasing power resulting from Government expenditure which is financed by loans"(20). He made no distinction between productive and unproductive expenditures and suggested that there may arise situations where it may be necessary to even incur public expenditure on unproductive activities simply to sustain or raise the level of effective demand in the system. For Keynes, borrowing for consumption was as desirable as borrowing for investment in productive goods because increase in the consumption expenditure could also induce investment to rise. The traditional view was discarded and public debt came to be conceived as a national asset rather than a liability and it began to be considered that continuous deficit financing is

essential to the economic prosperity of the nation.(21) Harris(22) observed that once unemployment was assumed and it was agreed that Government expenditure could be productive, the case for public borrowing was strengthened. Hansen (23) also declares that public debt is an essential means of increasing employment and is an important instrument of economic policy . The Keynesians' also consider that debt creation brings to the Government, unutilized resources and the productive employment of these resources leads to an increase in the national income. The tax payments necessary for servicing the debt are met out of the increased income and hence there is no burden on the economy. As Lerner explains, "Even if the interest on the debt is raised out of current taxes, these taxes constitute only the interest on only a fraction of the benefit employed from the government spending and are not lost to the nation but are merely transferred from tax payers to bond holders"(24). The notion that debt can be inflationary, as the traditional economists held, has been critised by Norman(25) who suggests that there is no reason to be concerned over inflation unless the transfer of available idle resources from private to public user are not easily accomplished.

The modern theorists believed that burden is not shifted to future generations, particularly the primary real burden (burden in real terms) and that it involves a sacrifice on the initial generation only (26). Buchanan summarises this view of the modern theory as that real sacrifice of private goods and services, (that is real income), occurs during the initial period, not from the debt per se but rather from the decision of the Government to undertake public expenditure.He observes,"In

this particular respect, the financing of a public expenditure by borrowing is little different from financing it by taxation. In either case, the real burden is borne currently and cannot be shifted."(27). Further it is also argued that public debt incurred in the current period leaves also a claim and not only an obligation and the net of the two has to be considered.(28)

The advocates of the modern theory of public debt or the 'no-burden' thesis also argue, that internal debt has large advantages. Existence of public debt encourages the growth of financial institution, like banks, stock markets, insurance companies etc., curtail consumption and encourage savings; helps central bank of the country in open market operations, etc.(29) Their contention was that the internal debt is no burden on the economy since, "we owe it to ourselves" and that it is only a transfer, from one group to another and hence cancels out as the loss of one is the gain of another. This analogy has been criticised on many grounds, the chief critics being Ratchford(30) and Lerner(31).

Buchanan's Views on Burden of Public Debt

The modern version of public debt became popular and was widely accepted till the publication of the Buchanan's book, 'Public Principles of Public Debt' in 1958. Buchanan tried to disprove the modern theory. He argued that if the loans are subscribed voluntarily then there is no burden and hence disagreed with the version of modern theory that the burden of debt is felt by the initial generation (32). Buchanan distinguishes between citizens in their roles as tax payers and as bond purchasers. He declares, "The tax payer in period 't$_0$'

does not sacrifice anything since he has paid no tax for the wasteful project. The burden must rest, therefore,on the tax payer in future time periods and no one else".(33) Thus the tax payer in future time periods, that is, the future generation, bears the full primary burden of the public debt". He further explains and also suggests that in case the expenditure is on productive work then the benefits of the future tax payers should be compared with the burden so that on balance a net benefit or net burden is suffered....future tax payer is the only one to whom such burden may be attributed" (34) Buchanans thesis was severely criticized by Lerner(35), Peacock (36), Prest (37) and Rolph (38). Later Bowen-Davis Kopf(39) , Modigliani (40) and Musgrave (41) who were critical of Buchanan's 'transfer to future generation' concept, came up with their thesis that debt burden can be shifted.

However, a very enlightening discussion on the concept of burden of debt is found in Domar's writings.Domar refuses to accept the absolute size of any nation's public debt as a reliable index of debt burden. In his celebrated article, "The 'Burden of the Debt' and the National Income", Domar showed that the problems of debt is mainly a problem of achieving a growing national income. The faster the income grows the lighter will be the burden of debt. In other words, one should not be concerned with the absolute level of debt but its ratio to national income. To quote Domar, "If all the people and organisations who work and study, write articles and make speeches, worry and spend sleepless nights - all for fear of the debt - could forget about it for a while and spend even half their efforts trying to find ways of achieving a growing national income, their contribution

to the benefit and welfare of humanity and to the solution of the debt problem - would be far greater".**(42)**

There is not much literature on the secondary burden of debt. Pigou has however suggested that due to large holdings of government securities the incentive to save further by the people will be adversely affected as already sufficient amount would be already held by them.(Pigou Effect) **(43)**. The existence of large public debt may adversely affect the incentive to work, invest and accumulate (Kaldor effect). This can be because the increase in national debt can make the owners of bonds less willing to work as they have already saved enough for rainy days'. Large debt can also affect investment as additional taxes,imposed to service the debt, would reduce the net yield from investments, after taxes and make socially useful investments unprofitable to the investor**(44)**. However, it may be difficult to establish that this factor has affected the incentive to work, invest and accumulate. Hansen observes that in countries like USA and UK, the employment figures do not indicate that a large public debt prevents people from taking and holding jobs and the productivity figures do not indicate slackening of work effort and that high tax rates may instead induce extra work. **(45)**

B. Public Debt and Inflation:

The process of increasing the public debt may or may not be inflationary, depending on the economic conditions prevailing in the country. In periods of depression, borrowing in itself will have no expansionary effects but in times of full employment, it is often regarded as inflationary **(46)**. In

periods of war, large amount of public borrowing is generally incurred and a flood of purchasing power is released by larger public expenditure, the natural result of which is a general rise in prices.However,Simons argues that "Borrowing is an anti-inflationary measure, not a proper means for financing reflationary spending. Borrowing is properly a means for curtailing purchasing power, private and governmental. To use it for injecting purchasing power is like burning the fire engines for heating purposes when there is an abundance of good fuel to be had free" (47)

The inflationary potential of the public debt, more than the magnitude depends among other things on who owns how much and what kinds of debt and whether the Government securities are used for the creation of credit money resulting in an increase in the supply of money in the economy (48). The Government securities held by the central bank of the country means increase in the reserve money (49) and hence increase in money supply and prices. The Chakravarty Committee stressed that both the Government and the Reserve Bank of India should show due concern for the achievement of the objective of price stability . This concern must underlie Reserve Bank's actions relating to the control of expansion in reserve money and money supply (50). The Committee is of the view that the observed inter-relationships between money, output and prices permit the following formulation -

$$\text{Log } P = \alpha - \beta \text{ Log } Y_r + \tau \text{ Log } M$$

where,'p'is price level,'Y_r'is real income and'M'is money held by public. According to this formulation, an increase in real output depresses the price level and an increase in money supply raises the price level. The relationship between money

stock, reserve money and the money multiplier is given by the equation -

$$M = m.RM$$

where, 'M' is the money stock, 'm' is the money multiplier and 'RM' is reserve money **(51).**

The sale of bonds to commercial banks is generally considered inflationary as these banks in times of need for funds can seek accommodation from the central bank in consideration of these securities **(52)**. Patnaik suggests that the creation of liquid assets for banks (cash plus securities) primarily by budget deficit increases the potential credit capacity of banks and hence potential money supply and argues that the commonly held view, that "financing public expenditure by borrowing from banks rather than RBI is less inflationary is a facile one" **(53).** However through appropriate monetary techniques like limits to refinance and rediscounting this impact can be controlled. On the presumption that borrowing from the commercial banks would result in a decrease in the liquidity of the banks and hence reduce bank's lending to the private sector, Reserve Bank of India makes use of the instruments like Statutory Liquidity Ratio. According to Gupta, "All that the increased government borrowing from the banks does is to reallocate banks credit in favour of the Government at the cost of the commercial sector while leaving the totals of'M'(Money supply) as well as bank credit unchanged **(54)**. The sale of bonds to individuals and non-bank public is most preferred as generally this is considered to lead to curtailment of purchasing power and reduction in consumption spending **(55).**

The maturity pattern of debt also has important implication for monetary stability. The lengthening of the maturity structure tends to shift the ownership of the debt from those who hold Government securities as a money substitute to genuine non-bank investors and vice-versa.(56). Treasury bills are near money securities and hence possess high degree of moneyness and consequently add to liquidity in the economy leading to monetary instability.

Further, there is also a fear expressed that inflationary forces may be generated if private holders of government securities endeavour to liquidate on a large scale(57). This can happen if the movement represents a continued shift from Government security holdings to private investment outlets (58). However, in the event of a 'liquidation panic' the consequences have been shown to be deflationary (59).Ghuge (60) is of the opinion that the existence of internal public debt for financing government outlay may entail three effects leading to inflation which are -- primary liquidity effect, monetisation liquidity effect and income effect. "Primary Liquidity Effect is generated when money supply with the public expands as a result of Government borrowing money from the Central Bank of the country on the basis of both Treasury bills and securities".(61) "Monetisation Liquidity effect of internal debt is entailed when money supply with the public increases as a result of selling of Government securities and Treasury bills to Central Bank of the country by the public".(62). Finally, "when servicing of internal national debt causes increase in the incomes of the rentier class and the latter resorts to increased spending on the purchase of consumption goods and services, an income effect of internal

national debt is generated. However, servicing of the entire national debt does not entail income effect". (63) .

The Government borrowing from the Reserve Bank, called monetisation of debt,is generally considered inflationary. Therefore, Chakravarty Committee (64) suggested that the coupon rates on Government securities in India should be increased so that they are attractive enough to be held in large amount by the public. This has also been suggested by Due who argues that sales of bonds to individuals should be as large as possible with minimum sale to financial institutions (65). Vijay and Little express the fear that if interest rates on Government borrowings rise,then during the transitional period the private sector would suffer from a powerful "crowding out" in the credit markets with consequent effects on output.(66). However, Dalal and Verma argue that though interest rates on Government borrowings have been rising recently, no crowding-out effect seems to have taken place.(67). Patnaik however suggests that changing only the rates of interest to make securities more attractive for individuals may not lead to desired effects. In case the borrowing is done from commercial banks this may not always be non-inflationary as credit creation can lead to increased money supply. Thus, there would arise the need for changing the SLR and CRR to curb the credit growth. Moreover, in case the public holds more of Government securities, then a given budget deficit would put smaller resources at banks disposal due to which the flow of funds to priority sectors may decline but the decline to the sectors where the government intends the decline to occur in areas like real estate, commodity speculation, luxury construction, etc. may not occur. This may defeat the very

purpose of controlling inflation (68).

C.Limits of Public Debt:

It is difficult to establish as to what can be the limit to public debt. Lerner believes that there should be no arbitrary limit to public debt and it should be permitted to rise till it reaches its natural limit at the full employment level (69). Hansen also holds a similar view (70). The limit to public debt also is implicit in the Domar's proposition whereby if the rate of interest is higher than the rate of growth of the economy and if government spending in aggregate is not so invested as to yield an increase in national income, then any primary deficit (that is, a deficit before taking account of interest payments) will lead eventually to an explosive rise in the size of national debt. Bispham, however observes that in plausible cases it might nevertheless take decades for the debt to income ratio to rise to one to one relation (71). According to Nevin, however, there may be," psychologically speaking, a maximum beyond which public opinion is not prepared to see the debt, or particular elements of it, go; expansion past this point may lead to a breakdown of confidence in the stability of the financial system in general and of the currency in particular, with all the consequences which would follow from this." (72). In a developing economy, the limit to debt is, "relative to some of the factors such as the role of public sector, policy with regard to expansion of public sector and the rate of growth of income. These among others are the important determinants of the limits to the growth of public debt in a developing economy".(73)

There has also been a debate as to a Statutory ceiling on

debt being fixed for a country for fiscal discipline. But the concept has not gained popularity because, firstly, the limit itself can always be altered by the Parliament, secondly,due to the limits imposed, allocation of funds in some important areas may be curtailed leading to hampering of growth in National Income, thirdly,funds from other sectors may be attracted which may again hamper growth and finally, the experience of the countries like USA have not been encouraging in controlling fiscal indiscipline and imposing limits.(74)

In India, the rising internal debt has initiated a debate among the economists as to the virtues of public borrowing and has led to the concern that the country may be heading for an 'internal debt trap' i.e. a situation in which borrowings may have to be increasingly resorted to simply for servicing interest payments on debt. Seshan in his pioneering paper, 'The Burden of Domestic Public Debt in India', mentions that, "Given the current trends it appears that by 1992-93 a point may be reached when the market borrowings may not be adequate to meet even interest payments."(75). Dandekar also points to the emerging grim situation (76). Bagchi observes that, "If, on the other hand, the interest burden keeps on rising, soon very little will be left out of current revenue to meet current expenditures. It is for these reasons, that the present fiscal situation causes concern_____."(77).Comptroller and Auditor General of India also mentions that, "If the present rate of borrowing continues, Government will be required to manage an extremely difficult internal debt situation."(78). Dalal and Verma also hold a similar view. They observe that, "The major consequence of increased recourse to borrowed funds is that it would need

additional tax effort for servicing the debt in the coming years. The debt servicing would thus pre-empt resources raised for developmental purposes". They further say that, "it is not a matter of serious concern if the debt is associated with acceleration in economic growth and self-financing of larger investment outlay. But in the case of India, a sizeable portion of borrowings is utilized for meeting the consumption expenditure which does not create any assets." (79)

D. Impact of Internal Debt on the Price Level - Some Theoretical Considerations

In this study, as discussed in the section on public debt and inflation, it is assumed that the interaction between money, output and prices takes the form of the demand function for real money balances (80). Nominal money balances held by the public are deflated by a price index representing the general price level and the real money balances are treated as a function of real income and the return on alternative financial assets. Thus, the demand function for real money balances would be

$$M/P = f(Y_r, i)$$

where 'M' is nominal money held by public, 'P' is price level, 'Y_r' is real income and 'i' is interest rate .

The increase in real income, ceteris paribus, necessitates an increase in the demand for real money balances and so long as money supply expands to this extent, there is no increase in the price level. The demand function for money can be formulated as a price equation (assuming that the demand for money is not significantly influenced by the rate of interest ~~e~~) as follows -

$$\text{Log } P = \alpha - \beta \text{ Log } Y_r + \gamma \text{Log } M$$

According to this formulation, an increase in real output depresses the price level and an increase in money supply raises the price level.

The above equation implicitly assumes that real income itself remains uninfluenced by changes in money and hence ignores the link between output and money inherent in the process of production.

An increase in output would require a certain amount of increase in money which is meant to facilitate creation of output. The extent of increase in the price level associated with an increase in output and money will depend on the net effect of elasticity of price with respect to money as well as output. These elasticities themselves depend upon the structure of production and the flexibility of supply responses can change with time. For a given rate of growth of real output, the rate of increase of prices will rise with money supply growth.

The process of money creation is simultaneously a process of credit creation. Money which is a liability either of the central bank or the commercial banks can come into existence only when an increase takes place in the assets of these institutions, which are mainly in the form of loans.

An important area of concern to the Central Government as well as the monetary authority is the stability in the price level. And as said above, the stability in the price level would depend on the acceptable rate of growth in the money supply, given the desired rate of growth in output as well as the inter-relationship between money supply and output. The demand function for money has been found to be stable in developing countries,

including India, though functional stability does not preclude shifts in the parameters over a period of time as the institutional framework in a country undergoes a change.

Regarding the growth of money stock from the supply side, the following equation highlights the relation between the money stock and the reserve money and the money multiplier, which gives a key mechanism by which money stock is raised.

$$M_s = m.RM$$

where, 'Ms' is supply of money in nominal terms, 'm' is money multiplier and 'RM' is reserve money. The value of the money multiplier depends on the currency deposit ratio and factors determining the cash reserves of the banks. Changes in the value of the money multiplier and in the level of reserve money lead to corresponding changes in money stock. The main avenue by which internal debt affects the money supply is through its influence on "reserve money"

Reserve Money represents those liabilities of the central bank and the Government that are deemed to be eligible as reserves to be held by banks for the purpose of deposit money creation in a system where the fractional reserve ratio governs the creation of deposit money.

In India, the main sources of reserve money as follows:-

Reserve Money = Net RBI Credit to Government
+ RBI credit to banks
+ RBI credit to commercial sector
+ Net foreign exchange assets of RBI
+ Government's currency liabilities to public
- Net non-monetary liabilities of RBI

Net RBI credit to Government is a major part of reserve money and constituted 99.1 per cent of reserve money in 1987-88.(81) Of the Net RBI credit to Government, around 99 percent are due to Government securities and Treasury bills held by RBI.

Thus, theoretically, price level is influenced by the money supply which is determined by the reserve money. Reserve money largely consists of RBI's credit to the Central Government, the credit being extended due to the holdings of Government securities and Treasury bills held by RBI. Hence RBI's holdings of Government paper should also influence the money supply and also the price level.

Similarly, the holdings of Government securities and Treasury bills by the commercial banks leads to credit creation. The effect of commercial bank's holdings of Government securities on money supply is not through reserve money but through credit creation. If banks are able to operate at a lower cash reserve ratio prompted by their increased holdings of Government securities (which can be discounted with the central bank of the country) it would lead to credit creation and hence increase in money supply and then lead to the rise in the price level. However, as is argued by many economists, if the Government borrowings from commercial banks merely reallocates financial resources between the Government and the private sector, then this would not lead to hike in money supply and the price level.

The Government borrowings from other institutions like insurance companies, provident funds, etc. are not expected to give rise to money supply or prices. These institutions generally prefer long term Government securities and do not seek accomodation from RBI against their holdings of Government

securities and Treasury bills. They provide stability to the monetary system. In addition, their investments represent indirect investment by the public and hence, if ever, would have a dampening effect on the price level.

Government borrowings from the individuals helps mop up the purchasing power from the hands of the public and thus should have a dampening effect on the price level. More importantly, in the absence of availability of such funds from the individuals, Government would have to resort to borrowings from Reserve Bank, as other avenues like commercial banks would already be operating on the statutory reserve requriements. More borrowings from Reserve Bank would mean higher reserve money and more money supply. Thus, in this indirect relationship with money supply also, such borrowings would have a dampening effect on the price level.

In chapter 6, we have empirically tested this causal relationship for the period 1951 to 1987 between reserve money and money supply, money supply and prices and reserve money and prices. Given the resource constraint and the expendtiure pattern of the Government, a hike in price level would make the Government require more funds and these additional requirement would reflect in the rise in reserve money. Our results bear this, that not only reserve money causes a rise in the price level but a vice versa relationship also exists. The monetary implications of Government borrowings from various sources are tested and results presented in chapter 6.

The Government borrowings are made from various sources like Reserve Bank, commercial banks, other financial institutions and by public. The economic implications of these, both monetary

and redistributive, would vary depending on who holds the debt. The decision to hold the debt would depend on various considerations like the maturity period of the instruments, rate of interest offered, fiscal concessions available, etc. The Government therefore floats various types of instruments to meet the individual requirements of the investors. Thus, the study of total internal debt makes it imperative to know the composition, ownership and maturity pattern and the interest rates offered on the various instruments.

Hence the chapter scheme in this study has been accordingly planned. In chapter 3, we present the overall trends of the rising total internal debt followed by the changing composition of it in the next chapter. In chapter 5, trends and implications of ownership and maturity pattern of total internal debt are discussed. In chapter 6, empirical results of the monetary implications of ownership pattern of debt are presented. In chapter 7, we discuss the rising burden of interest payments and the redistributive implications of it, followed by a discussion on the prevailing interest rates on various instruments.

Conclusion

The public debt can be classified in many ways, the important ones being voluntary and compulsory, productive and unproductive, redeemable and irredeemable, funded and unfunded and internal and external debt.

The economic literature on public debt concentrates on the concept of burden of debt. The existence of a large debt is neither an evil nor a blessing in itself but it can have both

favourable and adverse effects on the economy. Hence this instrument of public finance needs to be carefully utilized.

The problems with which the controversy is concerned are the measurement of the burden, the costs and benefits of the public debt and the intergeneration transfer of burden of debt. Mercantilists favoured public debt as they found that the State raised loans for beneficial investments. The early classical economists opposed public debt but the later classical economists held a liberal view as they took into consideration the mutuality of advantages of public debt to the Government and the lenders to the Government. The modern economists led by Keynes dismissed the notion of burden of debt as misplaced and stressed the income creating potentialities of public debt. Intergeneration transfer of burden of debt was also ruled out. This view has been criticised by Buchanan and others who have refuted the no-burden thesis. However, the consensus emerges on Domar's views that rising debt with the rising national income should not be a cause of concern.

Debt can be inflationary and in order to avoid monetisation of debt, Government borrowing should attract genuine savings of the people. Absorption of Government securities by the non-bank institutions and the public would increase the supply of funds to the Government without aggravating inflationary pressures. Also to promote stability much of the public borrowing should be in the form of long term loans.

In the literature, no specific limit to public debt has been prescribed. However, it is held that it is related to the goal of full employment and its magnitude to that of the national income. Another limit is imposed by the criterion of appropriate

interest rate. In India, only recently the mounting public debt, especially total internal debt, has attracted the attention of the economists and fears are being expressed that the country may be heading for a debt-trap or a period involving difficult fiscal management.

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Chapter 3

TRENDS IN THE TOTAL INTERNAL DEBT OF INDIA

In India, the Central Government derives the power to incur public debt under the Article 292 of the constitution of India. Article 292 empowers the Central Government to borrow on the security of the Consolidated Fund of India within such limits, if any, as may from time to time be fixed by the Parliament. There have been no limits fixed as yet.

The total internal debt of the country has risen from Rs.2,872 crores at the end of March 1951 to Rs.1,71,134 crores at the end of March 1988. In 1987-88, domestic borrowings accounted for 65.3 per cent of the total plan outlay. The annual accruals in total as well as net internal debt as a percentage to revenue receipts and tax revenue have increased manifold since 1951. The rising expenditure due to the development needs of the economy seem to be financed by domestic borrowings instead of the usual revenue measures.

In this chapter we analyse the rising trend in the total internal debt as well as the net total internal debt of India and its rising importance as a fiscal instrument. The rise in the net total internal debt of the Central Government would imply increasing retention of funds. A pertinent question then arises as to the causes of this large requirement of funds. The rising expenditure unmatched by revenue receipts would cause the budget deficit to rise and hence a resort to domestic borrowings which would imply that domestic borrowings are increasingly being made

use of as a substitute for revenue receipts. On the other hand, the analysis of the rising expenditure would reveal whether borrowed funds are being productively used or are being used to finance consumption expenditure. Thus, here an attempt has been made to probe as to why the growth in the outstanding domestic borrowing is so high and as to how and why is the importance of this instrument rising in the financing pattern of the plans.

Brief Historical Background.

The origin of Internal debt in India is traced to the period of First World War when the Government of India resorted to domestic borrowings to meet a part of the war expenditure. The Indian money market responded well and the first Indian loan of $2 million was oversubscribed. In October, 1917, Treasury bills were introduced for the first time, in order to attract short term funds. The success of war borrowing was due to the co-operation extended by the banks. To make Government securities attractive to the public, the rate of interest was raised to 6 per cent by the end of the war and better methods of borrowing were adopted(1). The loans floated during the period 1914 to 1924 were largely of short term nature with maturity period being less than ten years. The outstanding internal debt rose from Rs.179.77 crores at end of March 1914 to Rs.482.52 crores at end of March 1924. (Table 3.1).

The world wide depression of the 1929 had its impact on the Indian money market. The fiscal and monetary policies were geared to maintaining stable exchange rates, in the process rendering the domestic borrowing policy costly. However, the period after 1932 was characterised by the expansion of currency

and cheap money policy. The bank rate was lowered from 8 per cent in January 1932 to 3 per cent in November, 1935 (2). The

Table 3.1

Internal Debt of Government of India

(Rs. Crores)

Year (end of March)	Internal Debt
1914	179.77
1919	358.78
1924	482.52
1929	551.21
1934	693.09
1939	736.64
1944	1494.11
1949	2412.96
1950	2456.33

Source: Report on Currency and Finance, RBI.

bill rate was also lowered, the lowest level being 0.5 per cent in August 1937 (3). During the period 1932-39, eleven issues were floated fetching a nominal amount of only Rs.228 crores. The Government, during this period, did not take the advantage of prevalent low interest rates in encouraging the investment in the economy. The market loans increased by only Rs.15 crores where as the floating debt declined by Rs.51 crores during the period. Increasing support was lent by the commercial banks and insurance companies to the Government's borrowing operations. The monetary authority thus initiated and succeeded in the process of debt institutionalisation.

Public borrowing was an important fiscal instrument in financing heavy war expenditure during the Second World War period. In India, it came to be used in war finance from 1941-42. The Government's interest bearing rupee obligations increased from Rs.736.64 crores at the end of March, 1939 to Rs.2,245.10 crores at the end of March, 1946(4).A notable feature of war

loans was that they were kept open for long periods and were supported by the Reserve Bank.

In the year following the end of the Second World War, the market borrowing programme of the Government failed to evoke much response. The Central Government had proposed to mobilise more than Rs.720.36 crores in five years from 1946 to 1951 but could succeed in mobilizing only Rs.286.53 crores through market borrowings. The poor response was due to the prevailing economic and political conditions and lack of consistent debt policy. The increase in internal debt that took place during this period was mainly due to the issuance of Treasury deposit receipts, introduced from October 15, 1948 and to the increase in non-marketable debt, inclusive of small savings and deposits. The outstanding total internal debt rose to Rs.2,456.33 crores by the end of March 1950.

Trends in Total Internal Debt of India- 1951-88

India's total internal debt has been steadily increasing since 1950-51. The total internal debt rose from Rs.2,872 crores at the end of March 1951 to Rs.1,71,134 crores at the end of March 1988, a trend growth of 10.70 per cent during the period (Table 3.2,Graph 3.1).

The consistent and rapid rise in total internal debt is specifically witnessed since 1972-73. Since then the annual growth rates have constantly been above 10 percent except for 1973-74 and 1978-79. Earlier, after the Indo-China war in October 1962, the growth of total internal debt for the years 1962-64 rose to 10 percent per year compared to 7.4 per cent in 1961-62. Total internal debt rose from Rs.6,575 crores at the

Table 3.2

Total Debt of India

(Rs.Crores)

Year (end of March)	Total Internal Debt	External Debt	Total Debt
1951	2872(98.19)	53(1.81)	2925
1961	6121(88.67)	782(11.33)	69Ø3
1971	13378(67.35)	6485(32.65)	19863
1972	14591(68.11)	6831(31.89)	21422
1973	16816(7Ø.24)	7124(29.76)	2394Ø
1974	184Ø2(75.82)	5869(24.18)	24271
1975	2Ø415(76.Ø7)	6421(23.93)	26838
1976	22662(75.16)	7489(24.84)	3Ø151
1977	24997(74.38)	8611(25.62)	336Ø8
1978	31189(77.63)	8985(22.37)	4Ø174
1979	3411Ø(78.44)	9373(21.56)	43483
198Ø	4Ø252(8Ø.16)	9964(19.84)	5Ø216
1981	48452(81.83)	1Ø7Ø1(18.17)	59213
1982	55859(82.57)	11790(17.43)	67641
1983	71190(84.41)	13145(15.59)	84335
1984	8Ø141(84.13)	1512Ø(15.87)	95261
1985	968Ø4(85.33)	16637(14.67)	113441
1986	119462(86.81)	18153(13.19)	137615
1987	146248(87.86)	2Ø213(12.14)	166461
1988	171134(88.37)	22518(11.63)	193652
Trend Growth Rates*			
1951-88	1Ø.7Ø	15.64	11.17
1951-61	8.37	2Ø.15	9.Ø3
1961-71	7.87	22.84	11.18
1971-81	12.61	5.46	1Ø.81
1981-88	18.31	1Ø.63	17.19

Notes: Figures in brackets are percentages to Total Debt.
Source: Appendix, Table 1.

end of March 1962 to Rs.7,974 crores by the end of March 1964. In 1966-67, the total internal debt again increased sporadically by 15.83 per cent from Rs.9,136 crores to Rs.1Ø,582 crores,

---

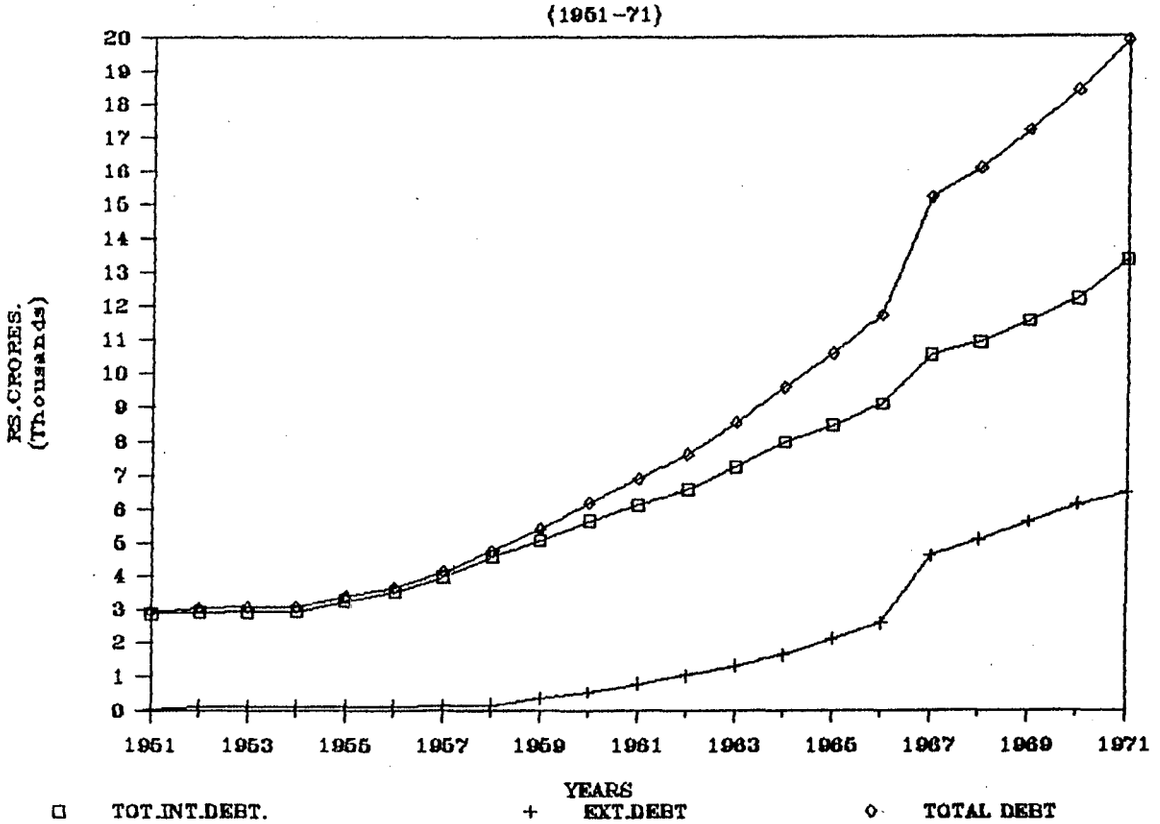
Semi-log function of the form 'log Y= a+ bt' has been used for estimating the growth rate . In this form, the growth rate is given by 'e^b -1'. If 'b' is small, the term 'e^b -1' can be approximated by 'b' which can then be presumed to measure the trend growth rates.

Throughout the study the growth rates have been measured by this method except at places where specified otherwise.

GRAPH-3.1

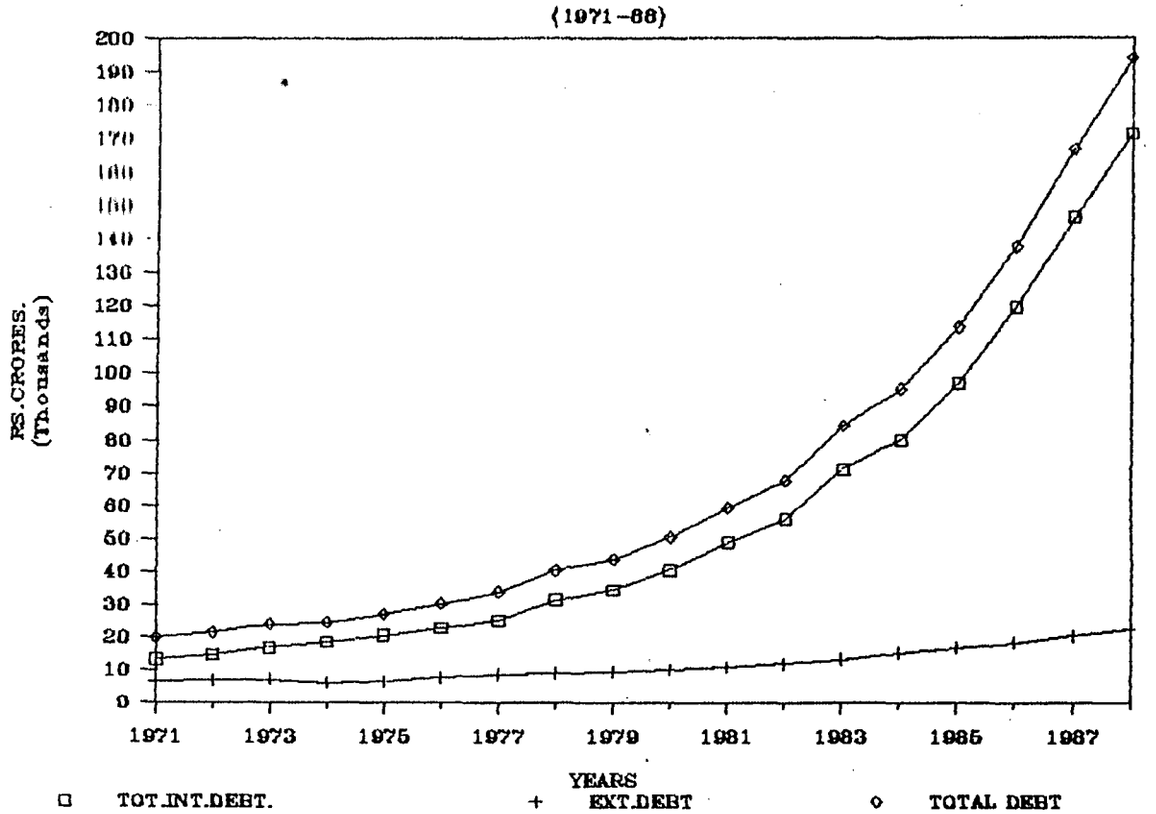
TOTAL DEBT OF INDIA

(1951-71)



TOTAL DEBT OF INDIA

(1971-88)



TOT.INT. = TOTAL INTERNAL

probably because of the lagged effect of the Indo-Pak War of 1965 and the bad monsoons of 1966-67, when, even the Third Five Year Plan was affected. The consistent high growh in total internal debt is witnessed from 1972-73 onwards, was because of the hike in the international prices of oil and because the enhanced requirements of financial resources could not be met through other means of revenue. Since then the trend has been a rising one with the annual increase being as high as 24.77 per cent in 1977-78 and 27.45 per cent in 1982-83 over the previous years respectively. The nationalisation of banks in 198Ø, the second oil shock and the consistent hike in prices of oil till the middle of eighties were partially responsible for this. The trend growth rate during the period 1979-88 is more than 18 per cent. The annual growth rates have been above 2Ø percent for the years 1985-1987 and it was only in 1987-88 that the rising trend was arrested with the annual growth rate being lower at 17.Ø2 per cent and the total internal debt rising to Rs.1,71,134 crores at the end of March 1988 from Rs.1,46,248 crores in the previous year.

In comparison to the high rise in total internal debt, external debt of India has risen from Rs.53 crores at the end of March 1951 to Rs.22,518 crores by the end of March 1988, at the trend rate of 15.64 per cent per annum over the period. The share of external debt in the total debt of the country rose from 1.81 percent at end of March 1951 to 32.65 per cent at the end of March 1971 but since then has been declining and was only 11.63 per cent at the end of March 1988. In the initial two decades of planning, the growth in external debt was higher than that of total internal debt. During 1971-81, the trend growth rate of

total internal debt was more than double than that of external debt and during the period 1981-88 the growth rate for both increased though the increase in external debt still continues to be nearly half of that in total internal debt.

The rising importance of total Internal debt as a fiscal instrument is apparent in the financing pattern of the five year plans. Heavy reliance was placed on domestic public borrowing to mobilize scarce financial resources to meet the higher plan outlays (Table 3.3). In the first two five year plans, increasing dependence on doemstic borrowings was noticed as external borrowings were low but during the Third Plan and the Annual plans, due to increased availability of external funds from USA, the dependence on domestic borrowings declined.

Table 3.3

Financing Pattern of the Plans

(Rs. Crores)

	Total Outlay	Domestic Borrowing	External Borrowing
First Plan	1960	1019 (52.0)	189 (9.6)
Second Plan	4672	2393 (51.2)	1047 (22.4)
Third Plan	8577	3246 (37.9)	2423 (28.3)
Annual Plan	6756	2708 (40.1)	2426 (35.9)
Fourth Plan	16160	8598 (53.2)	2087 (12.9)
Fifth Plan (1974-79)	39303	13026 (33.2)	5834 (14.8)
Fifth Plan (1979-80)(c)	12601	5487 (43.5)	1086 (8.6)
Sixth Plan	110821	61619 (55.6)	8529 (7.7)
VIIthPlan**	180000	87062 (48.4)	1800 (10.0)
1985-86(c)	34580	22136 (64.0)	327 (9.5)
1986-87(c)	40817	27179 (66.6)	358 (8.8)
1987-88(c)	45099	29444 (65.3)	3689 (8.2)

Note:* Figures in brackets are percentages to Total Outl y
The estimates for 1974-75 at current prices while those for subsequent years at 1975-76 prices
** At 1984-85 prices. (c) Current Prices
Source: Report on Currency and Finance, RBI

However, since the Fourth Five Year Plan, when India itself realised the perils of external borrowings, the dependence on

domestic borrowing has been rising. In the Sixth Plan, the dependence has been heavy but the major concern is that in the first three years of the Seventh Plan the share of domestic borrowings has been around 64 per cent of the total outlay compared to a target of only 48 percent for the aggregate plan.

The Planning Commission in its First Five Year Plan Report strongly favoured the expansion of the debt base, anticipating a important role for public borrowing in the successive five year plans. However, by mid eighties, the Planning Commission realised the implications of the rising dependence on borrowings, recognised the existing resource crunch and considered mobilization of financial resources a real challenge which would require restructuring of the present pattern of development financing so as to rectify the emerging imbalances and maintain sound financial planning to achieve the desired goals. The Seventh Five Year Plan states "The Indian fiscal system would have to accomplish the delicate task of raising adequate resources in a non-inflationary manner, besides providing enough incentives for savings and growth in production."(7)

The financing pattern of the Annual Plans of 1985-86, 1986-87 and 1987-88 (Table 3.3) reveal the rising dependence on domestic borrowings much above the target fixed for the Seventh Five Year Plan period. Hence, the Comptroller and Auditor General cautioned about the emerging difficult internal debt situation. (8)

The rising volume of debt needs to be compared with national aggregates to estimate its relative importance and also to analyse whether the moblised financial resources are being

productively used.

Total Internal Debt and National Income

As mentioned earlier, Domar in his celebrated essay, 'The Burden of the Debt and the National Income' suggests that, the rise in internal debt, if accompanied by a comparative rise in the National Income, need not cause worry about the debt situation. (9). In India,total internal debt as a ratio to National Income has steadily been rising from 32.59 per cent in 1950-51 to 67.75 per cent in 1986-87.(Table 3.4).The annual

Table 3.4

Comparison of Total Internal Debt of India to National Income

(Rs.Crores)

Years	Total Internal Debt. (end of March)	Yearly increase in Total Internal Debt	Net National Product at current prices	Total Internal Debt as % to NNP	
				(1/3)	(2/3)
	1	2	3	4	5
1950-51	2872		8812	32.59	-
1951-52	2895	23	9141	31.67	0.25
1960-61	6121	469	13263	46.15	3.54
1970-71	13378	1151	34235	39.08	3.36
1975-76	22662	2247	62302	36.37	3.61
1980-81	48452	8200	105743	45.82	7.75
1981-82	55859	7407	120966	46.18	6.12
1982-83	71190	15331	133807	53.20	11.46
1983-84	80141	8951	158265	50.64	5.66
1984-85	96804	16663	174018	55.63	9.58
1985-86	119462	22658	195707	61.04	11.58
1986-87	146248	26786	215881	67.75	12.41
1987-88	171134	24886	NA	NA	NA
Trend Growth Rates					
1951-88	10.70	-	-		
1951-61	8.37	15.85	4.16		
1961-71	7.87	4.91	10.14		
1971-81	12.61	18.18	11.11		
1981-87	18.31	19.04	11.43		

Note: N.A - Not Available
Source:(1) Appendix, Tables 1 and 15.
(2) National Account Statistics, G.O.I.

increase in total internal debt . as a ratio to National Income has also increased from Ø.25 per cent in 1951 to 12.41 per cent in 1986-87.

Since 1975-76, the annual growth in total internal debt has always exceeded that of National Income, except for 1983-84. Since then, till 1986-87,the National Income has been growing at less than half the rate of increase in the total internal debt. This is a cause of concern.

A comparative study of India's total internal debt with other countries shows that the outstanding total internal debt which was 31.29 per cent of GDP at current prices for India in 1951 was much less than 116.7 per cent for Canada, 2Ø6 per cent for UK and 1Ø6.9 per cent for USA in 195Ø.**(1Ø)** Thus, comparatively, Government of India could probably carry a much larger volume of debt. However, this ratio has steadily been rising and by the end of March 1986 had risen to 55.56 per cent.

Total Internal Debt and Net Total Internal Debt

The Government of India not only borrows but also advances loans to State Governments, Union Territories, Foreign Governments, etc. Therefore it is necessary to analyse the trend in total internal debt net of these loans and advances.

In 1951, when the country launched the planning era, the debt situation was sound, as summarised in the United Nations 'Public Finance Surveys - India'. It states, "The greater part of the Government of India obligations is balanced by loans and other interest yielding assets, so that the debt as a whole is not dead weight as the national debt of most countries - - debt position of the Government units in India is sound, with no real

signs of strain and no evidence of over borrowing at any time"(11). The situation has changed since 1971 with the loans and advances made by the Central Government not rising as steadily as the total internal debt of the Central Government. The loans and advances by the Central Government as a ratio to the total internal debt have declined from 70.36 per cent in 1971 to 46.82 per cent at the end of March 1988.(Table 3.5,Graph 3.2).The sharp increase in net internal debt started from 1978 onwards but from 1981 onwards the rise is consistent and large.

Table 3.5
Net Total Internal Debt of Central Government
(Rs.Crores.)

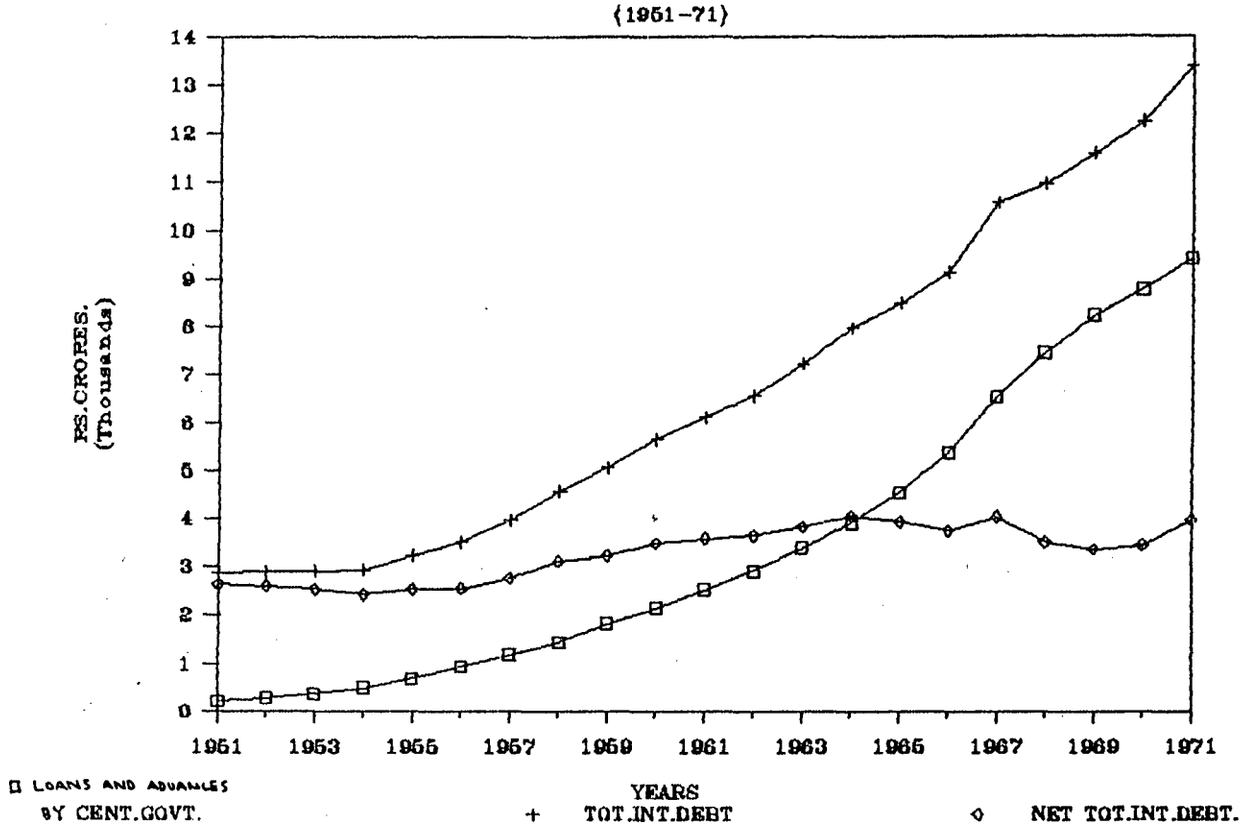
Year (end of March)	Total Internal debt	Loans and Advances by the Central Government	Net Total Internal Debt
1951	2872	221	2651
1961	6121	2534	3587
1971	13378	9414	3964
1972	14591	9924	4667
1973	16816	11534	5282
1974	1840 2	12496	5906
1975	20415	14029	6386
1976	22662	15695	6967
1977	24997	17920	7077
1978	31189	19787	11402
1979	34110	23374	10736
1980	40252	26634	13618
1981	48452	29837	18615
1982	55859	33900	21959
1983	71190	40000	31190
1984	80141	45849	34292
1985	96804	52294	44510
1986	119462	61902	57560
1987	146248	71076	75172
1988	171134	80130	91004
Trend Growth Rates			
1951-88	10.70	14.49	8.47
1951-61	8.37	24.04	4.11
1961-71	7.87	13.87	-0.36
1971-81	12.61	11.82	14.1
1981-88	18.31	14.35	23.5

Source: Appendix, Table 2.

GRAPH-3.2

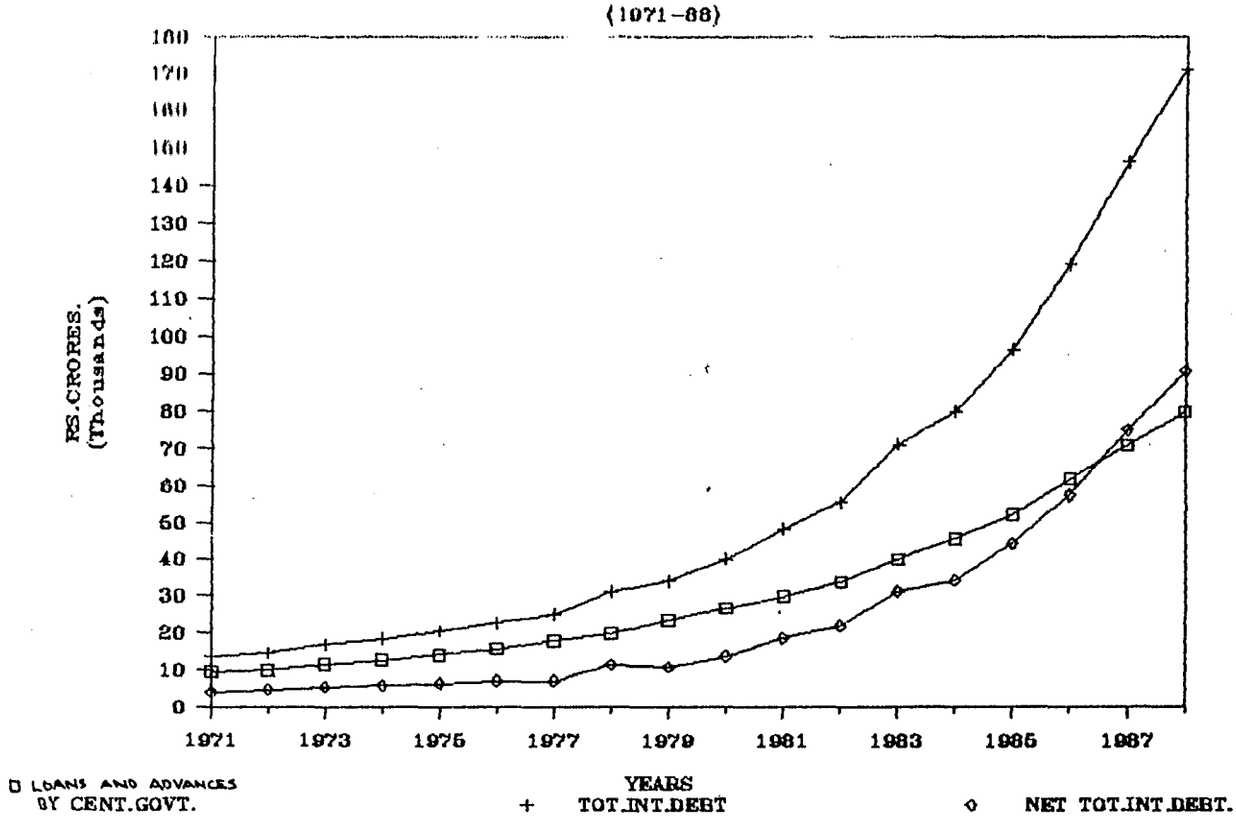
NET TOTAL INTERNAL DEBT OF INDIA.

(1951-71)



NET TOTAL INTERNAL DEBT OF INDIA.

(1971-88)



This implies that larger amount of total internal debt raised is being retained by the Central Government itself especially from 1980-81 onwards. Similar conclusion emerges from the perusal of Table 3.6 where total debt is compared with the total amount of capital investments and outstanding loans and advances made by the Central Government. The amount of total debt in excess of the total capital investments and loans advanced by the Central Government has declined from Rs.1,327 crores at the end of March 1971 to Rs.1,121 crores at end of March 1973. The loans advanced and capital investments were surplus over total debt from 1974 to 1982 and since then total debt has not only been in excess of capital investments and loans advanced but the excess of total debt has risen from Rs.5,285 crores at end of March 1983 to Rs.30,289 to crores at the end of March 1988, (Table 3.6), meaning thereby that, firstly, the

Table 3.6

Total Debt and Capital Investments and Loans Advanced by the Central Government

(Rs. crores)

Year (end of March)	Total Capital Outlay and Loans Advanced (TCO & LA)	Total Debt (T.D)	Excess of T.D. over T.C.O & L.A.
	1	2	3 (2-1)
1951	1709	2925	1216
1961	6125	6903	778
1971	18536	19863	1327
1981	59670	59213	-457
1988	163363	193652	30289

Source: Report on Currency and Finance, RBI

mobilized financial resources are being made use of by the Central Government itself and secondly, a similar rise is not witnessed in capital investments.

Causes of Rise in Total Internal Debt

The large rise in total internal debt unaccompanied by a comparable rise in revenue receipts probably reveals that domestic borrowings are being considered as a substitute for revenue finance . A comparison with the receipts and expenditure of the Central Government substantiates this and also emphasises the rising importance of this instrument since 1979-80.

The annual increases in total internal debt and net total internal debt as a percentage to revenue receipts and tax revenue have risen tremendously since 1951-52. (Table 3.7,Graph 3.3) The

Table 3.7

Internal Debt in comparison to Receipts of the Central Government

(%ages.)

Year	Total Internal Debt (Annual increase) as a Ratio to		Net Internal Debt (Annual Increase) as a Ratio to	
	Revenue Receipts	Tax Revenue	Revenue Receipts	Tax Revenue
1951-52	4.51	5.00	-	-
1960-61	53.45	64.23	10.94	13.15
1970-71	34.44	46.95	15.41	21.01
1980-81	63.92	87.35	38.95	53.22
1981-82	47.56	64.00	21.47	28.89
1982-83	87.74	117.42	51.03	70.70
1983-84	43.68	57.84	15.14	20.04
1984-85	68.34	94.17	41.91	57.75
1985-86	77.58	106.98	44.68	61.61
1986-87	70.70	101.00	43.74	62.53
1987-88	59.30	84.17	38.55	54.71

Source: Appendix, Tables 1 and 12.

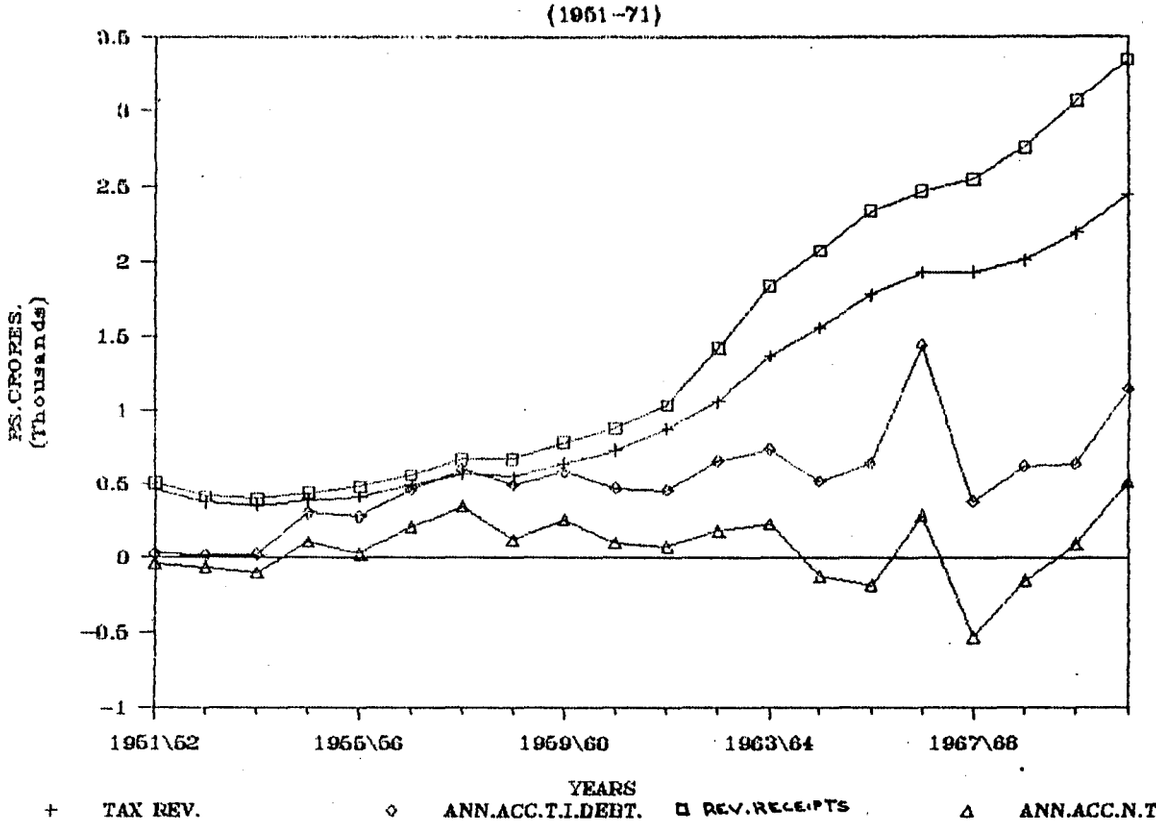
eighties witnessed a rising trend with the rate of growth in the annual accrual to the total internal debt at almost double that for revenue receipts and tax revenue.

The rising expenditure of the Central Government is not matched by the receipts on the Revenue Account. The expenditure as a ratio to the receipts on the Revenue Account has been high

GRAPH-33

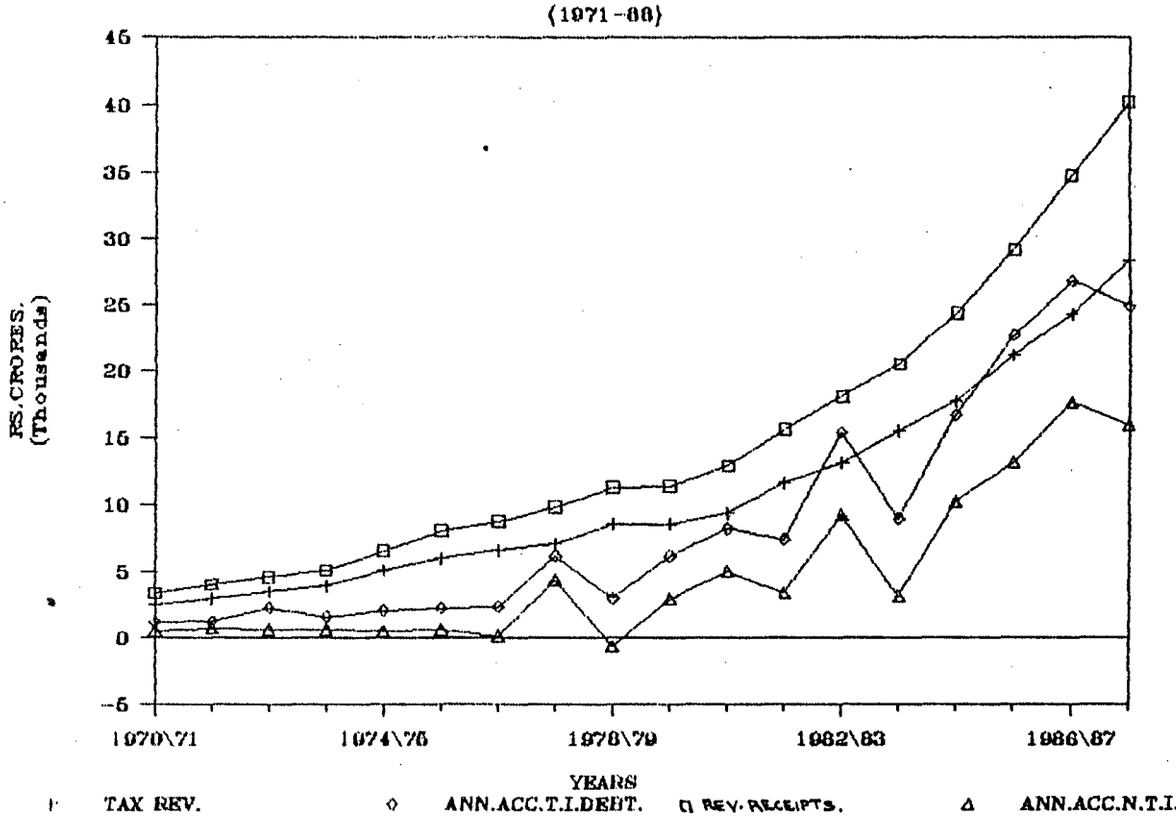
TOTAL INT.DEBT & RECEIPTS OF CENT.GOVT.

(1951-71)



TOTAL INT.DEBT & RECEIPTS OF CENT.GOVT.

(1971-88)



ANN = ANNUAL
ACC = ACCRUAL
T.I = TOTAL INTERNAL
N.T.I = NET TOTAL INTERNAL

and since 1979-80 there has consistently been a deficit on the Revenue Account. In 1950-51, revenue expenditure was 85.50 per cent of the revenue receipts whereas in 1979-80 it rose to 106.20 per cent and in 1987-88 to 121.13 percent. The deficit on the revenue account of Rs.695 crores in 1979-80 escalated to Rs.8,496 crores in 1987-88. In addition, expenditure incurred on the Capital Account also increases the deficit. The total budgetary deficit of the Government of India, according to the Economic and Functional Classification of the Union Budget, rose from Rs.6,298 crores in 1979-80 to Rs.28,176 crores in 1987-88. The financing pattern of the huge deficit reveals the rising dependence on domestic borrowings specially since 1980-81. (Table 3.8).

Table 3.8

Budgetary Position of Government of India

(Rs.Crores)

Year	Excess/Deficit	Financing of deficit	
		Net Domestic Borrowing	External Borrowing
1960-61	625	378 (60.48)	247 (39.52)
1965-66	1168	574 (49.14)	594 (50.86)
1970-71	1317	974 (73.96)	343 (26.04)
1975-76	3197	1723 (53.89)	1474 (46.11)
1980-81	8863	7629 (86.08)	1234 (13.92)
1981-82	8732	7815 (89.50)	917 (10.50)
1982-83	10734	9541 (88.89)	1193 (11.11)
1983-84	13331	12046 (90.36)	1285 (9.64)
1984-85	17579	16197 (92.14)	1382 (7.86)
1985-86	22251	20886 (93.87)	1365 (6.13)
1986-87	27194	25252 (92.86)	1942 (7.14)
1987-88	28176	25618 (90.92)	2558 (9.08)

Note: Figures in the bracket represent percentages.
Source: Economic and Functional Classification of Union Budget, Government of India.

The total expenditure has been rising faster than the revenue receipts since 1979-80 and hence the rising deficit leading to the rising debt (Table 3.9). The revenue receipts grew

at a higher rate than the total expenditure during the decade 1961-71 and the reliance on internal debt was less with the trend growth being only 4.91 per cent during the period.The trend

Table 3.9
Revenue Receipts and Total Expenditure
Trends Growth Rates

Year	Revenue Receipts	Total Expendi-ture	Annual Accrual Total Internal Debt
1951-61	7.58	12.83	-
1961-71	12.57	11.71	4.91
1971-81	13.78	13.63	18.18
1981-88	16.22	17.18	19.Ø4

Source: Appendix, Tables 1 and 12.

growth rate in the accrual of total internal debt has been higher than the revenue receipts and total expenditure during the decade 1971-81 and the period 1981-88. The trend growth rate for the total expenditure has been higher than the revenue receipts during the period 1981-88 leading thereby to excessive dependence on total internal debt.

Thus it is important that the cause of rising expenditure be analysed and probed.

Analysis of Growth in Expenditure

The analysis of rising expenditure reveals that the expenditure on capital formation as a percentage of the total expenditure of the Central Governments rose from 18.71 per cent in 195Ø-51 to 44.96 per cent in 196Ø-61 but then declined to 33.86 per cent in 197Ø-71. It then improved to 4Ø.ØØ per cent by 198Ø-81 and was 36.59 per cent in 1987-88. Similarly, the ratio of developmental expenditure of the Central Government to the total expenditure which was 59.42 per cent in 1965-66 declined to 46.59 per cent in 1971-72 but rose again to around 6Ø per cent during the period 1979-82. Since then, even this ratio has been

declining and was 53.7Ø per cent in 1987-88.(Table 3.1Ø).Thus the non-developmental and non-capital formation expenditure by the Central Government has been rising in the recent years. The

Table 3.1Ø

Comparison of Internal Debt and Expenditures on Central Government

(Rs.Crores)

Year	Developmental Expenditure	Expenditure on Capital Formation	Revenue Expenditure	Capital Expenditure	Total Expenditure
195Ø-51	-	99	347	183	529
1955-56	-	449	441	478	
196Ø-61	-	767	826	1Ø29	17Ø6
1965-66	2341	18Ø6	2ØØ1	2139	
197Ø-71	2659	1888	3179	2972	5576
1971-72	3126	2161	4128	345Ø	671Ø
1972-73	3949	2627	4592	3829	7849
1973-74	3754	2665	4836	4211	8131
1974-75	4975	3677	5793	4782	9785
1975-76	6172	4664	7189	595Ø	12Ø37
1976-77	7174	4991	8441	6Ø36	131Ø5Ø
1977-78	8438	5688	9362	6951	14986
1978-79	1Ø377	6913	1Ø948	2736	17717
1979-8Ø	11112	7229	12Ø34	7864	185Ø4
198Ø-81	1335Ø	9Ø12	14544	1Ø295	22495
1981-82	15148	1Ø799	15868	11254	254Ø7
1982-83	18Ø95	124Ø3	19346	13688	3Ø494
1983-84	21Ø84	147Ø2	228Ø	15679	35988
1984-85	26276	17551	27881	18991	43879
1985-86	3Ø852	21477	34772	17424	43112
1986-87	36394	24438	42544	21Ø73	64426
1987-88	36325	24752	48Ø5	21638	676Ø
Trend Growth Rates					
1951-88	-	13.41	13.64	12.23	12.87
1951-61	-	21.78	8.77	18.55	12.83
1961-71	-	7.64	13.23	9.1Ø	11.71
1971-81	16.39	15.79	14.72	12.Ø2	13.63
1981-88	16.12	21.42	18.27	11.Ø1	17.18

Source: Appendix, Table 12.

Comptroller and Auditor General in its Report for the year ended 31 March 1987 states, "From the beginning of the Sixth Plan till 1986-87, however, non-developmental expenditure has been growing at 19.2 per cent per annum against 17.4 per cent for

developmental expenditure. The scope for rigorously pruning wasteful expenditure, both developmental and non-developmental, especially the latter, should be explored." (12). The rise in non-development expenditure can be attributed to rising expenditure on defence and interest payments. The expenditure on subsidies has also recorded a high increase. They accounted for nearly 42.27 per cent of the total expenditure and 54.66 per cent of the revenue expenditure in 1987-88. The defence expenditure has risen from Rs.168.32 crores in 1950-51 to Rs.12,000 crores in 1987-88, a trend growth of 11.79 per cent per annum but its share in total expenditure has declined consistently. (Table 3.11). The defence expenditure on Revenue Account as a

Table 3.11

Comparison of Expenditure on Defence, Subsidies and Interest Payments to Total Expenditure

Year	Defence Expenditure as % age to			Subsidies as %age to		Interest Payments as % age to		
	Total Expend.	Revenue Expend.	Non-dev. Expend.	Total Expend.	Revenue Expen-	Total Expend.	Revenue Expend.	Non-dev. Expend.
1950-51	31.80	47.30	-	4.93	7.52	12.38	18.88	-
1960-61	16.47	29.97	-	1.80	3.72	11.05	22.82	-
1970-71	21.51	33.08	42.55	1.69	2.96	10.86	19.05	20.76
1980-81	17.19	24.34	42.28	8.33	12.89	11.81	18.27	29.05
1981-82	18.31	26.26	45.37	7.66	12.27	12.57	20.13	31.16
1982-83	17.74	25.23	43.62	7.80	12.29	12.91	20.35	31.76
1983-84	17.53	24.76	42.33	7.96	12.52	13.60	21.39	32.85
1984-85	16.26	22.95	40.54	10.08	15.86	13.62	21.43	33.94
1985-86	15.04	20.19	35.88	9.55	14.58	14.13	21.58	33.71
1986-87	16.42	21.16	37.37	8.76	13.11	14.52	21.17	32.95
1987-88	17.00	18.26	38.06	8.93	12.89	16.28	23.51	36.32

Source: Appendix, Tables 12 and 13

ratio to revenue expenditure has also been declining. Similarly, defence expenditure as a ratio to non-development expenditure also recorded a significant decline from 55.33 per cent in 1965-

66 to 38.Ø6 per cent in 1987-88. Despite this, the defence expenditure continues to be the largest single component on the Union Budget.

The expenditure on interest payments rose from Rs.65.51 crores in 195Ø-51 to Rs.11,236 crores in 1987-88, a trend rate of 14.92 per cent per year during the period. Increasing trend of growth rates with each decade since 1951 is a notable feature, with the trend growth rate being 22.88 per cent for the period 1981-88. The increase in the amount of interest payments on internal debt during this period have been rising faster than that on external debt. The interest payments on external debt have risen from Rs.1.58 crores in 195Ø-51 to Rs.961.57 crores in 1987-88 compared to a rise in interest payments on internal debt which rose from Rs.63.93 crores to Rs.1Ø,274 crores during the same period. Though as early as 1974, the draft Fifth Five Year Plan noted that, the large and growing interest on public debt is accounted for by the fact that public investment is being financed largely, not by public saving, but by borrowings within the country and abroad and that the mounting public debt and a growing interest liability are the inevitable consequences of this mode of financing **(13)**, the rise in total debt continued unabated with the interest liability mounting over the period.

The expenditure on subsidies rose manifold from Rs.26.1Ø crores in 195Ø-51 to Rs.6,279.12 crores in 1987-88, a trend rate of 17.26 per cent over the period. The spurt in the expenditure on subsidies has taken place from 197Ø-71 onwards. Since then the subsidies have risen from Rs.94.2Ø crores to Rs.6,279.12 crores in 1987-88. As a ratio to total expenditure it continues to be high at 8.93 per cent compared to 4.93 percent in 195Ø-51.

As a ratio to the revenue expenditure a declining trend noticed since 1984-85 continues but it still accounts for 12.9 per cent of the revenue expenditure. The expenditure on subsidies continues to be high despite the emphasis on curbing it made in the Sixth and Seventh Plan.

Thus expenditure on defence, interest payments and subsidies constituting the largest chunk of total expenditure of the Union Government needs to be controlled. The Comptroller and Auditor General reports that, "The two main components of non-plan expenditure namely subsidies and defence have almost become committed expenditure and the scope for reducing them needs to be seriously examined" **(14)**. The Report also mentions that the increasing resort to market borrowings for financing rising expenditure would further lead to increase in non-plan expenditure and this practice has to be curtailed especially when the borrowings are not productive.

The utilization of financial resources by the Central Government itself reveals that large amounts of funds are being used for consumption purposes **(15)**. The Central Governments consumption expenditure has been rising at a higher rate than the expenditure on capital formation **(16)**. (Table 3.12).The net savings of the Central Governments and the departmental commercial undertakings have been meagre since 1956-57 and since 1983-84 are not only negative but are also very high. Of the consumption expenditure, wages and especially those pertaining to Government administration have recorded a high growth **(17)**.The Planning Commission has thus stressed the need for administrative reforms which would eliminate unnecessary work and lead to reduction in expenditure **(18)**.

Table 3.12

Consumption Expenditure, Capital Formation and Net Savings of Central Government and Departmental Commercial Undertakings

(Rs. Crores)

Year	Consumption Expenditure	Capital Formation		Net Savings
		Gross	Net	
1956-57	533	262	212	123
1960-61	738	311	213	70
1970-71	2359	519	428	312
1980-81	7772	1817	1516	-52
1981-82	9308	2522	1971	526
1982-83	10813	2806	2108	1
1983-84	12489	3356	2461	-582
1984-85	14317	4149	3199	-1633
1985-86	16699	4558	3412	-2587
1986-87	20930	5905	4631	-3439
1987-88	24169	6136	4655	-5190

Source: Appendix, Table 14.

The rising expenditure unmatched by availability of financial resources from taxation, public enterprises and other revenue sources have resulted in the ever rising internal debt. The Planning Commission rightly points out the requirement of a long term strategy to restore balance between budgetary revenue and expenditures to enable the public sector to finance developmental outlay without inflation and at the same time to pursue a sound fiscal policy in relation to the private sector. The first component in the long term strategy is to reform and strengthen the tax structure and its enforcement, so as to make it buoyant and responsive to growth in income. The second element in the strategy lies in the formulation of an adequate expenditure policy. The third element is the maintenance of fiscal discipline which could be aided by the requirements to pursue a non-inflationary fiscal policy.(19) The implementation of this strategy would certainly help to curtail the ever

increasing expenditure and the rising debt.

Conclusion

The increase in total internal debt in India during the period before 1950-51 was mainly the result of two world wars and investments in public works, such as, railways and irrigation works.

The total internal debt of the country rose at a trend rate of 10.70 per cent per annum compared to 8.47 per cent in the case of net total internal debt during the period 1951-88. The rise during the period 1981-88 is much more disturbing as the trend growth rate for total internal debt has been 18.31 per cent and for net total internal debt it has been 23.1 per cent. Since 1970-71, the net total internal debt has been rising at a higher rate than the total internal debt and the gap in the trend rates has been widening meaning thereby that additional resources are being retained by the Central Government for its own use.

The cause of mounting internal debt is the widening gap between the Central Government's rising expenditure and the lagging revenue which is being sought to be bridged by resorting to domestic borrowings. The rising expenditure is not being used for developmental or capital formation activities and thus is being used for unproductive purposes. In fact, it can be safely concluded that since 1979-80, with the emerging deficit in the Revenue Account of the Central Government, part of the debt is being used to finance revenue expenditure. The rising total expenditure is attributed to defence, subsidies and interest which account for nearly fifty per cent of total expenditure. The consumption expenditure of the Central Government and the departmental undertakings has been higher than that on capital

formation.

The domestic borrowings are being used as a substitute for revenue by the Central Government in the face of the rising expenditure unmatched by revenue receipts and and this has resulted in the mounting internal debt and interest burden.

Notes and References

1. Dalaya, C., Internal Debt of the Government of India, (Bombay, 1966), p.38.

2. The interest rate was lowered from November 29, 1935 where it remained till November 15, 1951. Mishra, D K., Public Debt and Economic Development in India, (Lucknow, 1985), p.64.

3. Dalaya, C., Internal Debt of the Government of India, op.cit., p.39.

4. This increase in addition to heavy borrowings during the war, was due to increased holdings on account of advance payment of taxes on income, excess profit tax deposits and an increase in the depreciation and reserve funds of the railways, posts and telegraphs,etc. Barman, K., India's Public Debt and Policy since Independence,(Allahabad, 1978), p.82.

5. "Techniques of borrowing, in particular, have to be adopted so as to convey to the people the larger purpose for which the loans are being raised and to facilitate their participation in the development programme on the largest possible scale." Government of India., First Five Year Plan, Planning Commission, p.55.

6. "Greater dependence on borrowings has implications in terms of increasing the burden on the government budget for meeting interest payments as well as repayments of the principal amount. The development financing structure which has emerged during the VI Plan shows serious limitations to cope with the increasing demand for development expenditure in the country." GOI., Seventh Five Year Plan , Planning Commission, p.46.

7. Ibid., p.46.

8. "If the present rate of borrowing continues Government will be required to manage an extremely difficult internal debt situation." Government of India: Report of the Comptroller and Auditor General of India, for the year ended 31 March 1987, p.5.

9. Domar, E.D., The 'Burden of the Debt' and the National Income" in Readings in Fiscal Policy ,(London, 1955), p.5ØØ.

1Ø. Venu, S., Public Finance and Fiscal Policy, Vol.1, (New Delhi 1973) p.259.

11. Hicks, U.K., Public Finance Surveys - India, p.94.

12. Government of India., Report of CAG of India, op.cit., p.5.

13. Government of India., Fifth Five Year Plan, Planning Commission, p.47.

14. Government of India., Report of CAG of India, op.cit.,p.5.

15. Consumption expenditure refers to expenditure on wages and salaries and commodities and services for current use.

16. Capital Formation refers to investments in buildings, public works, equipment and other fixed assets.

17. In the consumption expenditure, wages and salaries of Government administration, departmental commercial undertakings and wages and salaries component of Government outlay on construction is included.

18. The Planning Commission stresses that the, "Administrative Reforms which eliminate unnecessary work, reduce overlap and simplify procedures will have to be hastened. In fact, in many areas such reforms can lead to reduction in expenditure.", GOI., Seventh Five Year Plan , Planning Commission, p.70.

19. Ibid., p.68.

Chapter 4

COMPOSITION OF TOTAL INTERNAL DEBT

The perusal of the previous chapter reveals the rising dependence on domestic borrowings and the mounting total internal debt. Total Internal debt consists of various important components and instruments.

The study of the composition of the total internal debt becomes essential to know the implications of the rising obligations. Total Internal debt consists of marketable debt and non-marketable debt both of which have different effects on the monetary situation of the economy. Marketable debt, consisting of debt which can be subscribed to by the public -- both institutional as well as individual and where ownership can change, would have different monetary implications if held by different categories of investors like commercial banks, insurance companies, State Governments and individuals. On the other hand, non-marketable debt where the ownership is specific, monetary implications of ownership of different instruments varies. Hence, the composition of total internal debt assumes importance for an analytical study of the implications of ownership pattern.

In this Chapter, we discuss the changing composition of total internal debt of the Central Government.

Classification

On the basis of methods adopted to raise funds, total internal debt, as stated above can be classified into (a)

marketable debt and (b) non-marketable debt. Marketable debt consists of all dated securities, normal Treasury bills, special bearer bonds and part of compensation and other bonds. Non-marketable debt consists of small savings, provident funds, special securities issued to RBI, special floating and other loans, reserve funds and deposits, insurance and pension funds and trusts and endowments (1).

In India, the formal classification followed by the Central Government as well as the Reserve Bank of India is slightly different (2).

We present and follow the classification of the Reserve Bank of India (Chart - 1) to look into the composition of Total Internal Debt.

Chart 1
Total Internal Debt of Central Government

Internal Debt	Small Savings	Provident Funds & Other Accounts	Reserve Funds & Deposits
1. Market loans	1. Post Office Deposits	1. State P F	1. Interest bearing
2. Treasury Bills	2. Post Office Certificates	2. Public P F	2. Non-Interest bearing
3. Special Floating and Other Loans		3. Other Accounts	
4. Compensation and other Bonds			
5. Special Bearer Bonds			
6. Special Securities issued to RBI			

Composition of Total Internal Debt

The composition of total internal debt has been changing over the period. The share of internal debt in the total internal debt of the country has declined from 70.40 per cent at the end of March 1951 to 58.15 per cent at the end of March 1988, where as, the share of provident funds and other accounts have

risen from 3.86 per cent to 14.77 per cent and that of small savings have increased from 11.73 per cent to 16.38 per cent over the same period (Table 4.1,Graph 4.1).The trend growth rate for

Table 4.1

Composition of Total Internal Debt

(Rs.Crores)

Year (end of March)	Total Internal Debt	Small Savings	Provident Funds and Other Accounts	Reserve Funds and Deposits	Total Internal Debt
1951	2022(70.40)	337(11.73)	111(3.86)	402(14.00)	2872
1961	3978(64.99)	970(15.85)	551(9.00)	622(10.16)	6121
1971	7665(57.30)	2206(16.49)	1750(13.08)	1757(13.13)	13378
1981	30865(63.7)	7976(16.46)	5977(12.34)	3634(7.50)	48452
1982	35654(63.83)	9375(16.78)	7203(12.89)	3627(6.49)	55859
1983	46939(65.93)	11098(15.59)	8789(12.35)	4364(6.13)	71190
1984	50263(62.72)	13507(16.85)	10368(12.94)	6003(7.49)	80141
1985	58536(60.47)	17157(17.72)	12548(12.96)	8563(8.85)	96804
1986	71040(59.47)	21449(17.95)	15410(12.90)	11563(9.68)	119462
1987	86313(59.02)	24725(16.90)	20203(13.81)	15007(10.26)	146248
1988	99520(58.15)	28025(16.38)	25283(14.77)	18306(10.70)	171134
Trend Growth Rates					
1951-88	10.33	11.22	13.88	9.68	10.70
1951-61	8.55	10.63	12.22	2.54	8.37
1961-71	6.81	8.28	11.65	9.16	7.87
1971-81	13.17	12.50	15.21	7.01	12.61
1981-88	16.68	18.88	20.39	25.83	18.32

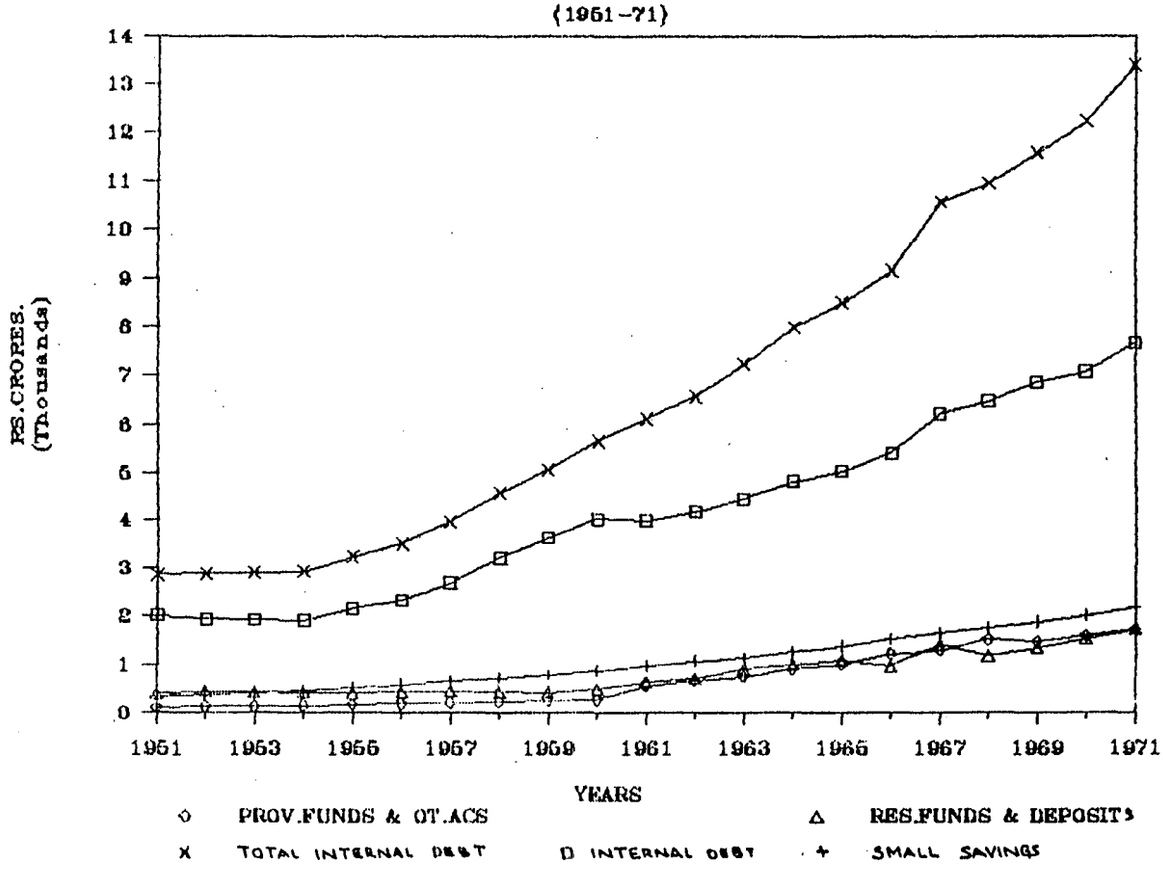
Note: Figures in brackets are percentage to the Total Internal Debt.
Source: Appendix, Table 1.

internal debt, small savings, provident funds and other accounts has been higher since 1971 than in the previous two decades. But since 1980-81 the trend rate reveals a very high growth in all the components of total internal debt, the rise being larger for small savings, provident funds and other accounts and reserve funds and deposits during 1981-88 as compared to trend growth for internal debt. The analysis and discussion pertaining to individual components follows.

GRAPH-4.1

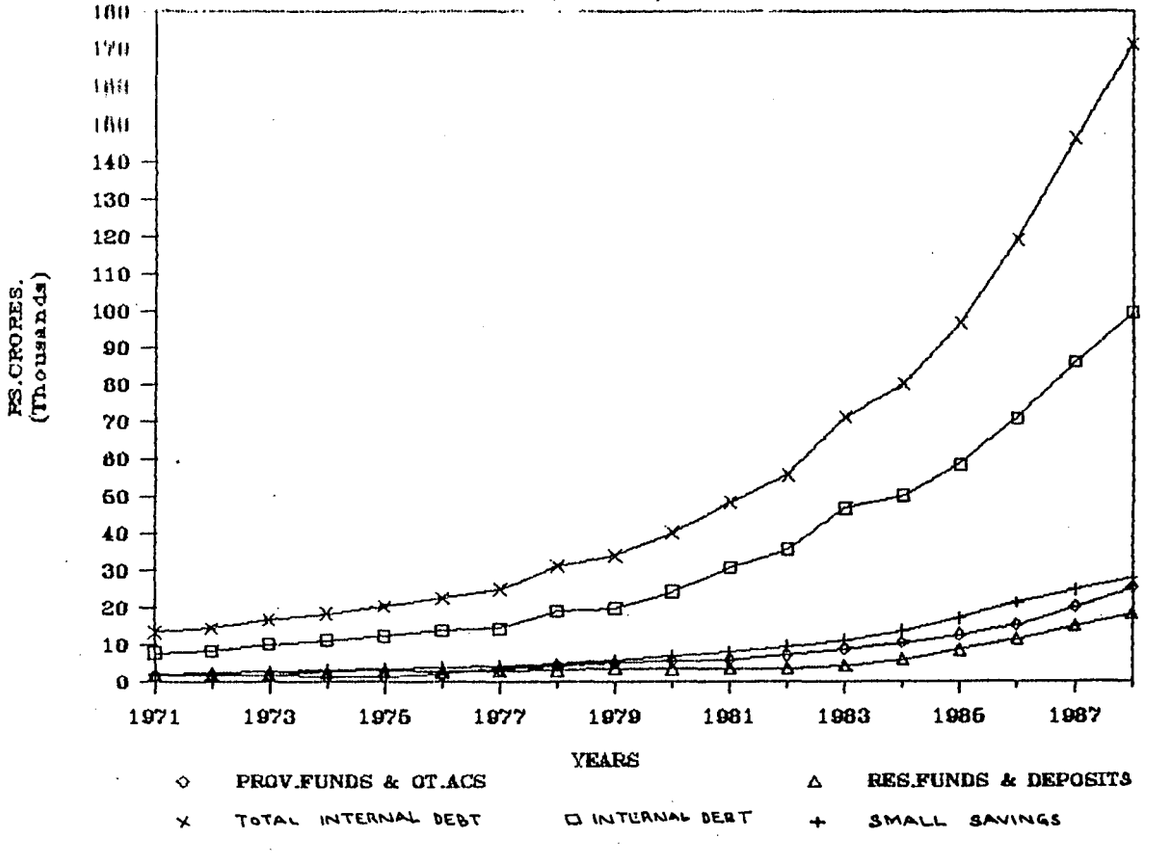
COMPOSITION OF TOTAL INTERNAL DEBT.

(1951-71)



COMPOSITION OF TOTAL INTERNAL DEBT.

(1971-88)



Internal Debt : Internal Debt comprises of market loans, special securities issued to Reserve Bank of India, compensation and other bonds, Treasury bills and special floating and other loans. In Table 4.2 (Graph 4.2) the components of Internal Debt are

Table 4.2
Components of Internal Debt

(Rs. crores)

Year (end of March)	Market Loans (M.L)	M.L. in course of repayments	Special Bearer Bonds	Treasury Bills	Compensation & Other Bonds	Special Floating & Other Loans	Special Securities issued to RBI	Internal Debt
1951	1438	7	0	350	0	219	0	2022
	(50.07)	(0.24)		(12.47)		(7.63)		(70.40)
1961	2559	23	0	1106	16	274	0	3978
	(41.81)	(0.38)		(18.07)	(0.26)	(4.48)		(64.99)
1971	4318	46	-	2516	80	705	0	7665
	(32.28)	(0.34)		(18.81)	(0.60)	(5.27)		(57.30)
1981	15549	49	88	12851	203	1540	585	30865
	(32.09)	(0.10)	(0.18)	(26.52)	(0.42)	(3.18)	(1.21)	(63.70)
1982	18461	49	964	10273	261	1536	4110	35654
	(33.05)	(0.09)	(1.73)	(18.39)	(0.47)	(2.75)	(7.36)	(63.83)
1983	22232	49	964	17431	380	1673	4210	46939
	(31.23)	(0.07)	(1.35)	(24.49)	(0.53)	(2.35)	(5.9)	(62.72)
1984	26270	49	964	15756	471	2183	4570	50263
	(32.78)	(0.06)	(1.20)	(19.66)	(0.59)	(2.72)	(5.70)	(60.47)
1985	30366	27	964	19452	523	2554	4650	58536
	(31.37)	(0.03)	(1.0)	(20.09)	(0.54)	(2.66)	(4.80)	(60.47)
1986	35241	38	964	26014	508	3088	5187	71040
	(29.50)	(0.03)	(0.81)	(21.78)	(0.43)	(2.58)	(4.34)	(59.47)
1987	40759	48	964	19876	467	4330	19867	86313
	(27.87)	(0.03)	(0.66)	(13.59)	(0.32)	(2.96)	(13.56)	(59.02)
1988	47751	48	964	25301	405	5365	19677	99520
	(27.91)	(0.03)	(0.56)	(14.78)	(0.24)	(3.13)	(11.50)	(58.15)
Trend Growth Rates								
1951-88	9.32	-	-	11.72	-	8.25	-	10.33
1951-61	6.38	-	-	16.97	-	1.68	-	8.55
1961-71	5.23	-	-	8.50	3.66	12.45	-	6.81
1971-81	12.46	-	-	15.16	7.05	7.55	-	13.17
1981-88	15.88	-	9.95	11.25	10.38	18.95	39.44	16.68

Note: Figures in brackets are percentage to the Total Internal Debt
Source: Appendix, Table 1.

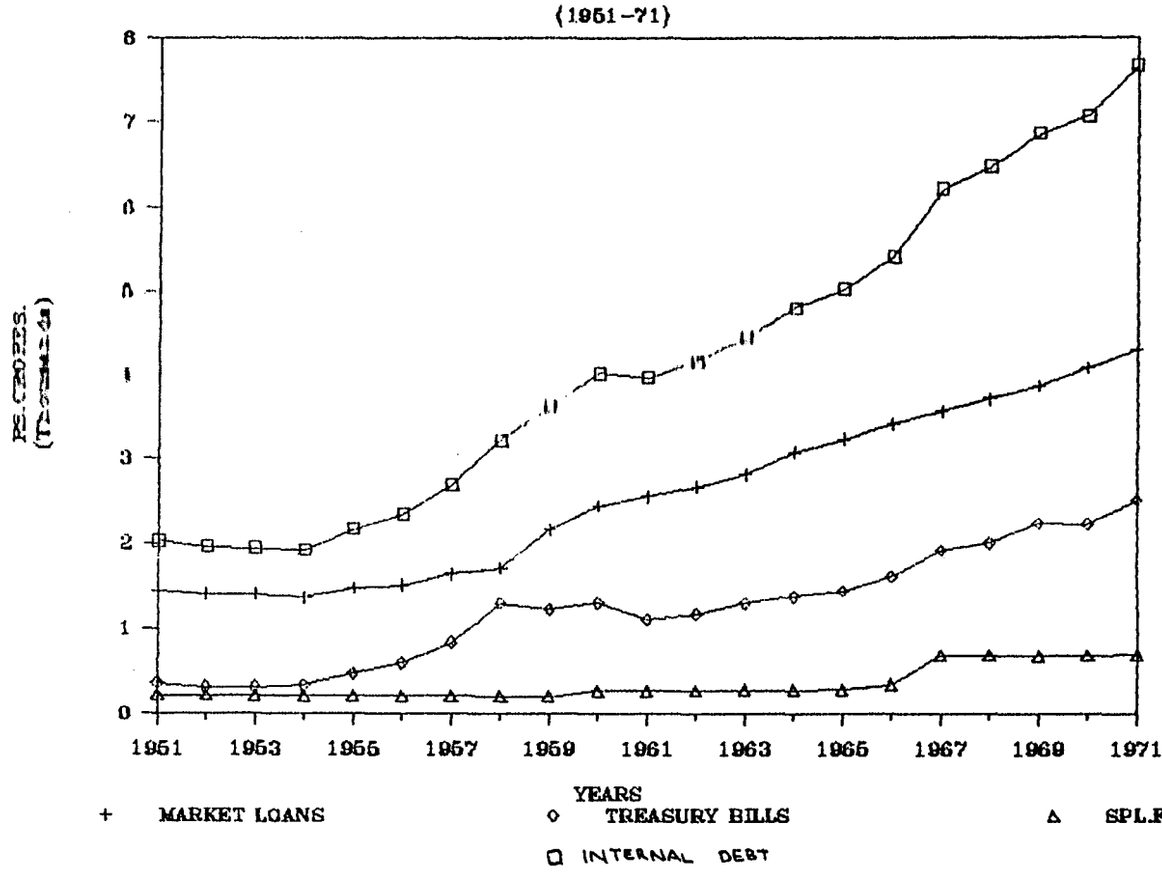
presented. They are discussed as follows -

Market Loans The market loans, also called as Rupee loans,

GRAPH-4.2

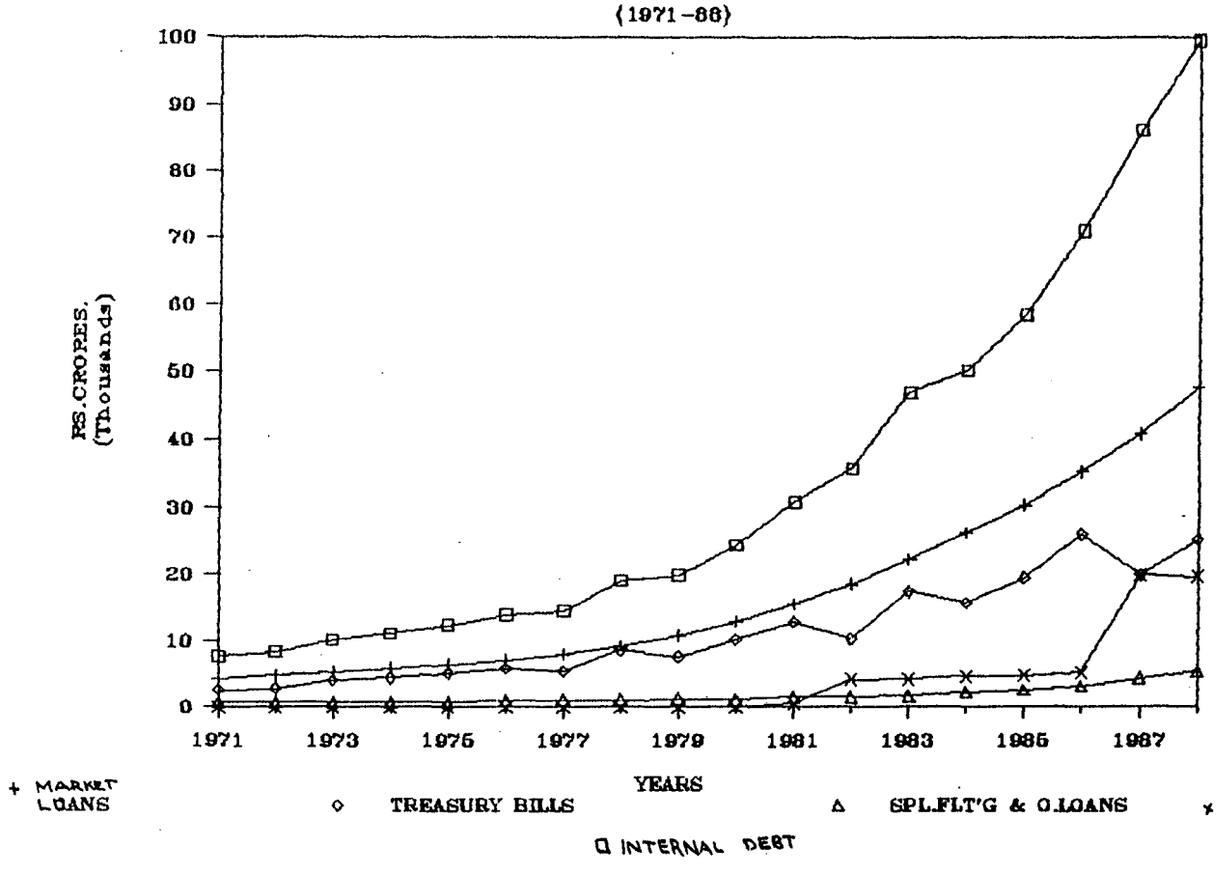
MAJOR COMPONENTS OF INTERNAL DEBT.

(1951-71)



MAJOR COMPONENTS OF INTERNAL DEBT.

(1971-86)



consist of three kinds of obligations, (a) Marketable debt, (b) dated loans issued by the Government to the Reserve Bank in exchange for the ad hoc Treasury bills outstanding (3), and (c) miscellaneous debts such as, the Hyderabad State Loans which were taken over in 1957,Gold bonds, etc.

The Rupee loans increased from Rs.1,438 crores at the end of March 1951 to Rs.47,751 crores at the end of March 1988, recording a trend growth of 9.32 per cent over the period. The rate of growth of market loans has risen from 6.30 per cent for 1951-61 to 15.88 per cent for 1981-88. The rising trend is perceptible from 1972-73 onwards and then again further from 1978-79. This corresponds to the increased financial requirements by the Government due to the Indo-Pak War and the two oil shocks. However, the share of market loans in total internal debt has consistently been declining over the period, signifying the rising importance of other sources of internal borrowing. The market loans have not been popular outside the captive market due to the low rates of interest on these instruments.

Since the start of planning in our country the amount of gross market loans raised has been rising rapidly. In the earlier years of the First Five Year Plan, repayments exceeded the borrowings 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 more loans (4). The substantial 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 the case in the earlier periods, multiple loans with varying maturity patterns and rates of interests were floated. The Gross market borrowings increased from Rs.30.34 crores in 1950-51 to Rs.2,848.50 crores in 1980-81 to Rs.7,821.00 crores in 1987-88 with the annual average rate of 16.19 per cent for the period 1950-51 to 1987-88 (Table 4.3).

Table 4.3

Net Market Loans Raised During the Year

(Rs. Crores)

Year	Gross Market Loans Raised	Market Loans Discharged	Net Market Loans Raised
	1	2	3= (1-2)
1950-51	30.34	41.58	-11.24
1960-61	181.40	109.38	72.02
1970-71	507.38	284.50	222.88
1980-81	2848.50	269.70	2578.80
1981-82	3198.30	285.40	2912.90
1982-83	4136.20	365.50	3770.70
1983-84	4381.70	343.40	4038.50
1984-85	4583.70	488.20	4095.50
1985-86	5543.30	658.90	4884.40
1986-87	6350.00	1050.50	5299.50
1987-88	7821.00	820.91	7000.09

Source: Appendix, Table 3

The amount of loans discharged have also been rising. The loans discharged as a percentage of amount raised was only 9.97 per cent in 1980-81 compared to 16.54 per cent in 1986-87. However, this ratio declined to 10.50 per cent in 1987-88. The initiation of decline in the ratio of loans discharged to total borrowings is because of the adoption and application of appropriate debt management techniques by the Government in relying more on long term loans since 1970-71. This is discussed

in detail in the next chapter.

The net amount of market loans raised during the year rose to Rs.7,ØØØ.Ø9 crores in 1987-88 compared to Rs.2,578.8Ø crores in 198Ø-81 and Rs.222.88 crores in 197Ø-71.

Treasury Bills

Treasury bills are the most short-term issues of the Government, generally for the period of 9Ø days or 91 days and are used to acquire funds to meet short-term deficits (5). Treasury bills are highly liquid carrying low rates of interest.

Treasury bills are of two kinds - (a) ad hoc Treasury bills issued by the Central Government to the Reserve Bank of India, and (b) Treasury bills sold to the public (6). The ad hoc Treasury bills are issued to RBI, for the general purpose of financing budget deficits of the Government (7). The normal Treasury bills are intended to be primarily an investment outlet for short term surplus funds.

In the developed countries, Treasury bills play a significant role in the working of the bill market and in augmenting the financial institutions of a larger supply of short term assets. On the other hand, in the developing countries, like India, where the bill market is not adequately developed, large amounts of Treasury bills are either held by the central bank of the country or by the commercial banks.

The amount of Treasury bills outstanding rose from Rs.358 crores at the end of March 1951 to Rs.12,851 crores at the end of March 1981 and to Rs.25,3Ø1 crores at the end of March 1988 (Table 4.2), recording an annual trend rate of 11.72 percent over the period 1951-88. The share of Treasury bills in the total internal debt increased from 12.47 per cent at the end of

March 1951 to 24.Ø5 per cent at the end of March 1973 and stabilised around that till 1978, when it rose to 27.63 per cent and then again to 26.52 per cent at the end of March 1981. However the share of Treasury bills declined to 14.78 per cent by the end of March 1988. This decline has to be cautiously considered as special securities issued to RBI (a separate component of internal debt) since 1981 mainly consists of Treasury bills converted into long term debt. Hence the increase in Treasury bills after 1981 has to be considered along with the change in special securities issued to RBI. Considered thus, the share continues to be around 26 percent at the end of March 1988.

Special Floating and Other Loans

Special Floating and other loans refer to non-negotiable, non-interest bearing rupee securities issued to International Financial Institutions **(8)**. They have recorded a trend growth of 8.25 percent over the period 1951-88. However, the growth is much more marked since 1981. The outstanding liabilities have increased from Rs.1,54Ø crores at the end of March 1981 to Rs.5,365 crores at the end of March 1988, a trend rate of 18.95 per cent. However, the share of these securities to total internal debt declined from 7.63 per cent at the end of March 1951 to 2.96 per cent at the end of March 1987, but then rose marginally to 3.13 per cent by the end of March 1988 **(9)**.

Compensation and other bonds and Special Bearer Bonds

Compensation and other bonds include balances outstanding on account of Premium Prize bonds, Interest free Prize Bonds, Annuity Certificates, Bank (Acquisition and Transfer)

Compensation Bonds, Capital Investment bonds, etc. The important ones are briefly discussed as follows.

A series of Prize bond schemes incorporating lottery features and other incentives were introduced during April 1960-64 to mop up small savings from the public, but were not successful (10). Capital Investment bonds introduced on June 28, 1982, to mobilize private savings for public use carrying interest rate of 7 per cent per annum with a 10 year maturity had successfuly mobilised an amount of Rs.166 crores by the end of March 1987. Bank (Acquisition and Transfer) Compensation Bonds, as the name implies, refer to the bonds issued during the nationalisation of commercial banks.

The amount on account of compensation and other bonds has risen from Rs.16 crores at the end of March 1961 (Interest Free Prize Bonds) to Rs.405 crores at the end of March 1988, the share in the total internal debt remaining marginal over the period.

Special Bearer Bonds scheme was introduced in 1981 basically to mop up black money so rampant in the economy. The scheme netted Rs.964 crores against the budget estimate of Rs.1,000 crores.

Small Savings

The small savings instruments comprise Post Office Savings Deposits, 1-5 years Time Deposits, Cummulative and Recurring Time Deposits, National Savings Certificates, Kisan and Indira Vikas Patras, Social Security Certificates and other instruments (11). Two new schemes, namely, National Savings Scheme, 1987 and Post Office Monthly Income Scheme were introduced from April 1, 1987. Amongst the Post Office

Deposits, the amount held by time deposits was largest and amongst this the largest holdings are under 5-year time deposits which at Rs.5,433 crores at end of March 1988 accounted for 19.39 percent of small savings. Amongst the certificates, 6-year National Savings Certificates, VI and VII issue at for Rs.14,411 crores accounted for 51.42 per cent of small savings at end of March 1988.

The net small savings outstanding increased from Rs.337 crores at the end of March 1951 to Rs.28,Ø25 crores at the end of March 1988 - recording a trend growth rate of 11.22 per cent over the period (Table 4.4, Graph 4.3). The increase was more marked

Table 4.4

Small Savings
(Outstandings)

(Rs.crores.)

Year (end of March)	Small Saving		Total Small Savings
	Deposits	Certificates	
1951	188 (6.55)	149(5.18)	337(11.73)
1961	434 (7.Ø9)	536(8.76)	97Ø(15.85)
1971	1176 (8.79)	1Ø3Ø(7.7Ø)	22Ø6(16.49)
1981	6416(13.24)	156Ø(3.2)	7976(16.46)
1982	73Ø6(13.Ø8)	2Ø69(3.7)	9375(16.78)
1983	8126(11.41)	2972(4.17)	11Ø98(15.59)
1984	8941(11.16)	4566(5.7Ø)	135Ø7(16.85)
1985	1Ø114(1Ø.45)	7Ø43(7.28)	17157(17.72)
1986	11596(9.71)	9853(8.25)	21449(17.95)
1987	113Ø2(7.73)	13423(9.18)	24725(16.9Ø)
1988	NA	NA	28Ø25(16.38)

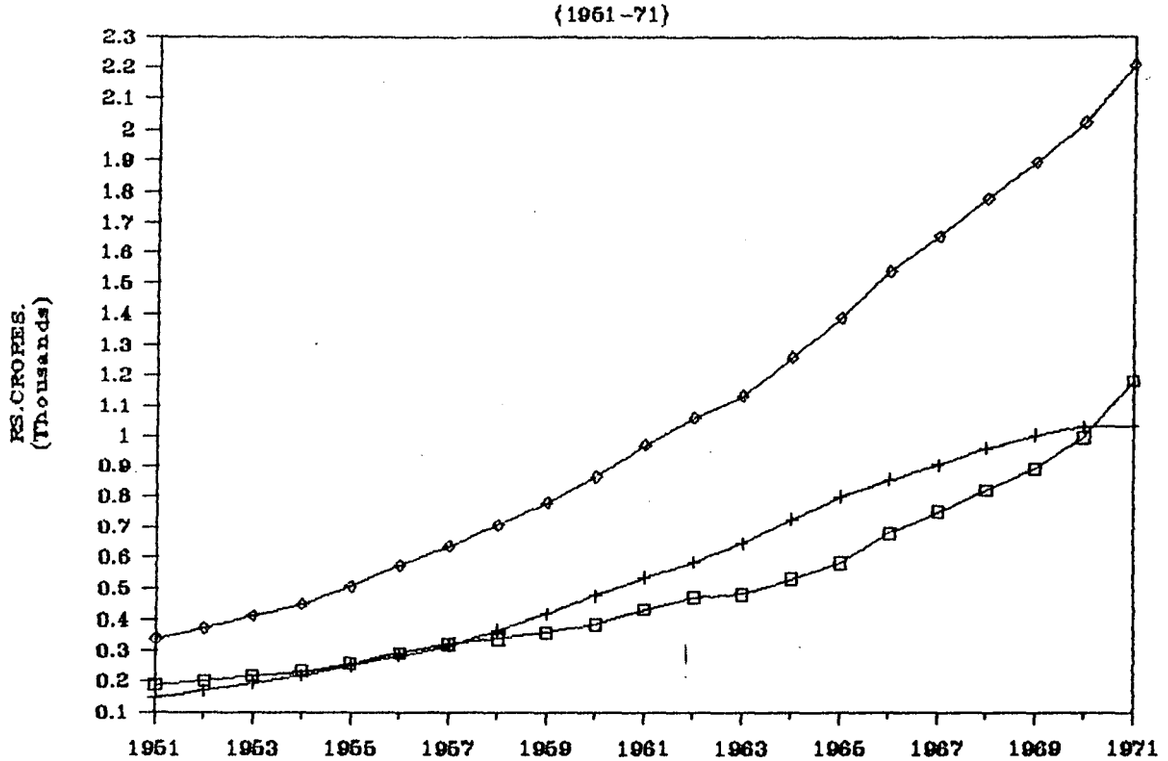
Note:Figures in the brackets are percentages to Total Internal Debt. NA- Not Available.
Source: Appendix, Table 11.

period 1981-88 which recorded a trend growth rate of 18.88 per cent. However, the share of small savings to the total internal debt had risen from 11.73 per cent in 1951 to 16.46 per cent at the end of March 1981 but since then have marginally declined to 16.38 per cent at the end of March 1988 after having peaked at

GRAPH- 4.3

SMALL SAVINGS

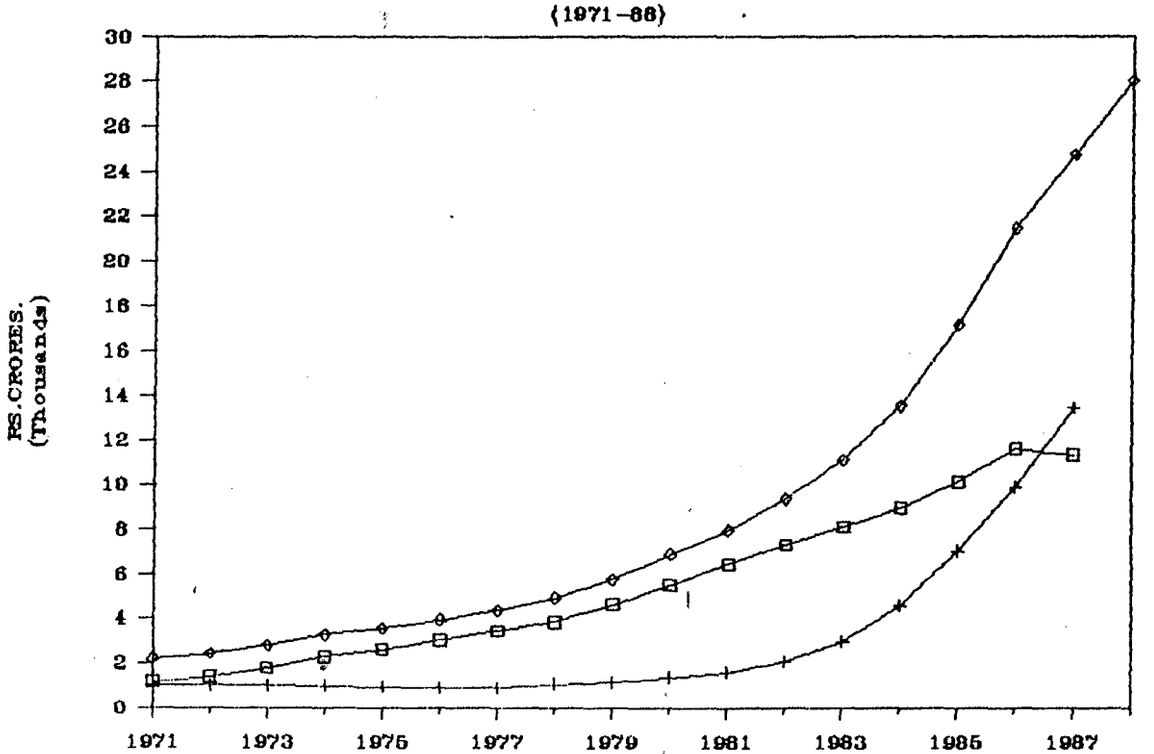
(1951-71)



□ SMALL SAVINGS DEPOSITS. + SMALL SAV. CERTIFICATES ◇ TOTAL SMALL SAVINGS

SMALL SAVINGS

(1971-88)



□ SMALL SAVINGS DEPOSITS. + SMALL SAV. CERTIFICATES ◇ TOTAL SMALL SAVINGS

17.95 per cent at end of March 1986. The high rates of interest offered along with numerous fiscal concessions have contributed to the popularity of the small saving instruments.

Small Savings as a source of Government borrowing is of special significance as it taps the genuine savings of the people and provides the Government with the much needed capital without aggravating the inflationary situation in the economy. Hence, the Government of India, has been pursuing a policy of promoting small savings since the beginning of the planning period. The Finance Minister in his budget speech in 1953, emphasised, we shall have to turn increasingly to the small saver for providing the finance required for development" **(12)**. In the 1957-58 Budget White Paper, it was stated that "the savings movement is not merely a mechanism for governments' ways and means, not merely a planned measure for the fulfillment of certain specific needs, but it seeks to create the habit of thrift through self help which is of lasting value to the individual and to the nation"**(13)**. The Finance Minister's budget speech in 1960 said, "the small savings movement is more than a routine device for mobilizing resources. It has a psychological appeal in providing an opportunity for the ordinary man and woman to participate in the national effort for development." **(14)**. To make the small savings movement popular, many new promotional measures were initiated. They are to provide greater facilities for depositing and withdrawing money and other incentives to the people to invest in small savings scheme. To promote small savings campaign more effectively the sharing of the proceeds from the collection by the Central Government with the States was started from the First Five Year Plan **(15)**. The sharing scheme was

further liberalised over a period of time and following the acceptance of the recommendations of Taleyarkhan Committee, the provisions are that two thirds of the net small savings collections in each state are passed on to them in the form of 25 year loans. Besides, as an incentive for mobilizing 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 2/3 of net collections. Similarly the 2/3 of the increase in the net small savings collections in Union Territories over the net collection in the previous year goes towards augmenting their plans. From the year 1973-74, the State Governments are entitled to an additional loan assistance equal to 25 per cent of the amount of individual savings collected in excess of the target fixed for that state.

However there are numerous difficulties in mobilizing resources through small savings. In developed countries also, contribution of the small savings has been small but in underdeveloped countries the major reasons for low small savings is the lack of ability to save **(16)**. Other difficulties which restrict the mobilisation of financial resources through the instruments of small savings is the lack of knowledge about these instruments **(17)** and premature encashments and the frequent withdrawals **(18)**. It is necessary to educate the small savers in this respect through a vigorous and sustained drive.

Provident Funds and Other Accounts

Provident Funds consist of State Provident Funds and Public Provident Funds **(19)**. The State Provident Funds increased from Rs.95 crores to Rs.5,392 crores during the period 1951-88

recording a trend growth rate of 16.71 per cent. Though, it's share in the total internal debt has been varying over the period it has generally been around 3-4 per cent.(Table 4.5, Graph 4.4)

Table 4.5

Provident Funds and Other Accounts

(Rs. crores)

Year (end of March)	Provident Funds		Other Accounts		Total
	State	Public	Total	of which deposits by PG & SF*	
1951	95(3.31)	-	16(Ø.56)	-	111(3.86)
1961	289(4.72)	-	262(4.28)	-	551(9.ØØ)
1971	841(6.29)	4(Ø.Ø3)	9Ø5(6.76)	-	175Ø(13.Ø8)
1981	2456(5.Ø7)	189(Ø.39)	3332(6.88)	2Ø67(4.27)	5977(12.34)
1982	267Ø(4.78)	254(Ø.45)	4279(7.66)	2837(5.Ø8)	72Ø3(12.89)
1983	3Ø6Ø(4.3Ø)	36Ø(Ø.51)	5369(7.54)	3676(5.16)	8789(12.35)
1984	3268(4.Ø8)	487(Ø.61)	6621(8.26)	4697(5.87)	1Ø368(12.94)
1985	36Ø7(3.73)	552(Ø.57)	8389(8.67)	5788(5.98)	12548(12.96)
1986	4ØØ1(3.35)	628(Ø.53)	1Ø781(9.Ø2)	6375(5.34)	1541Ø(12.9Ø)
1987	4742(3.24)	763(Ø.52)	14698(1Ø.Ø5)	1ØØ63(6.88)	2Ø2Ø3(13.81)
1988	5392(3.15)	1Ø13(Ø.59)	18878(11.Ø3)	14219(8.31)	25283(14.77)

* PG & SF are Provident, Gratuity and Superannuation Funds.
Note:Figures in brackets are percentages to Total Internal Debt
Source: Appendix, Table 1

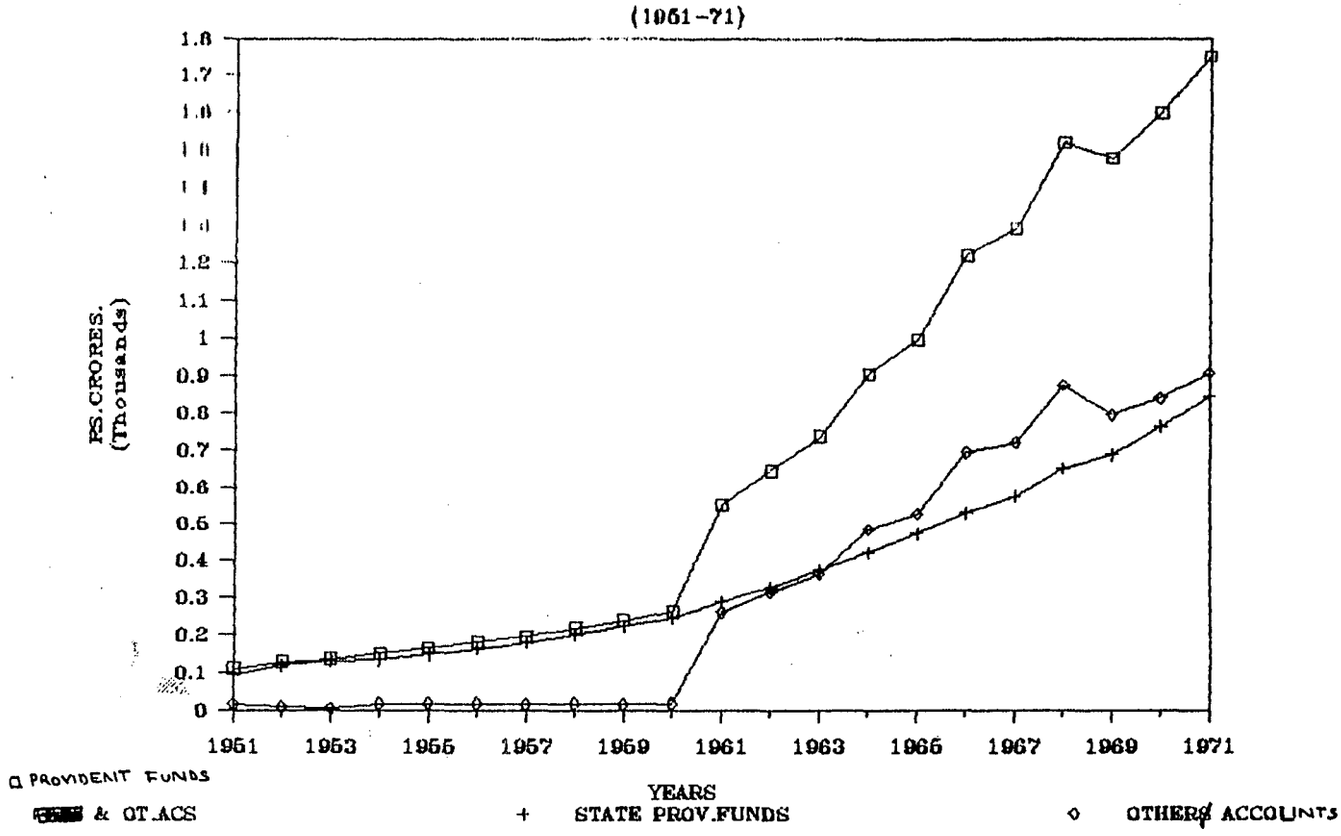
The Public Provident Fund Scheme framed under Public Provident Fund Act, 1968 for the benefit of the general public with the objective to attract voluntary savings, mainly, from the self employed people, is operated by State Bank of India and its subsidiaries. Deposits under the scheme qualify for tax rebate admissible of approved savings. The Public Provident Funds have gradually risen from Rs.1 crore at the end of March 1969 to Rs.1,Ø13 cores at the end of March 1988 (Table 3.5). The Provident Fund schemes have low rates of interest along with some fiscal concessions and have not been popular with the investors.

The other Accounts refer to the funds in the Trust and

GRAPH - 4.4

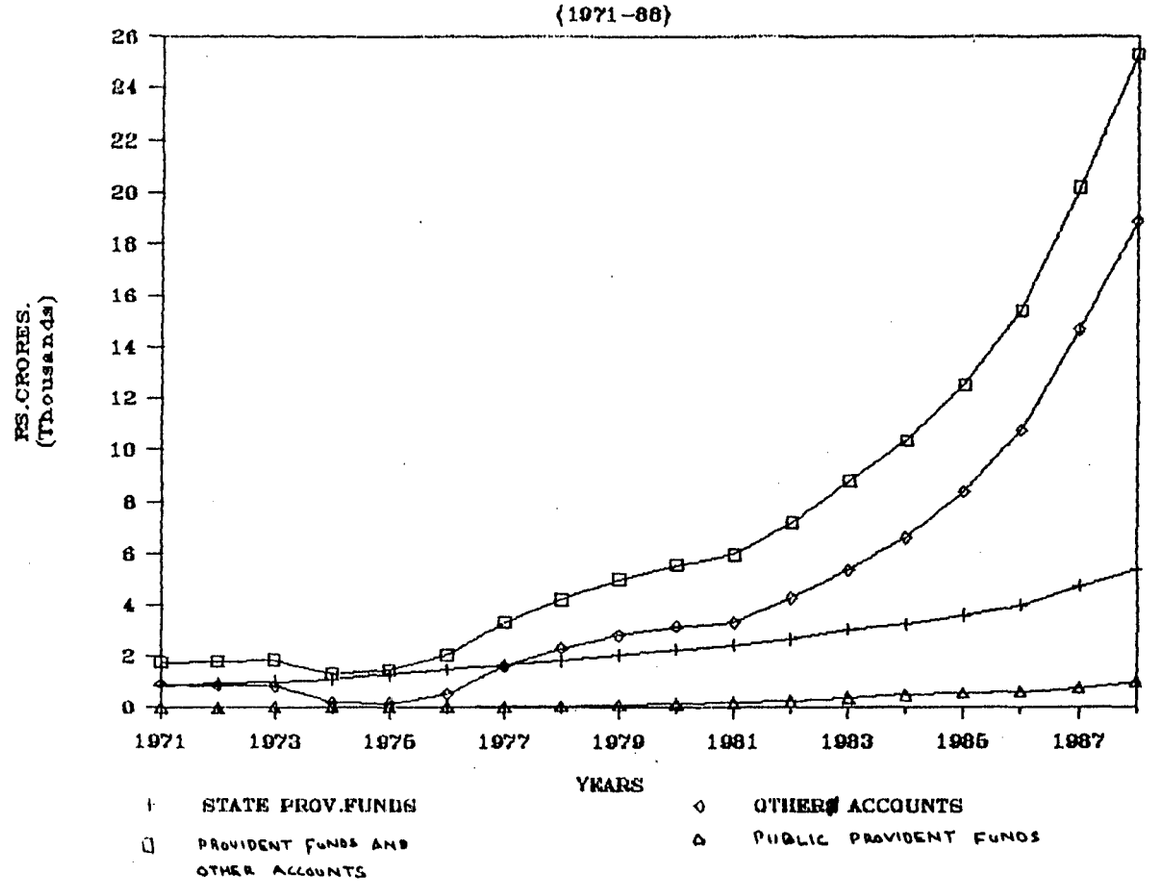
PROVIDENT FUNDS & OTHER ACCOUNTS.

(1961-71)



PROVIDENT FUNDS & OTHER ACCOUNTS.

(1971-86)



Endowment Accounts, Insurance and Pension Funds and Special Deposits and Accounts (2Ø). The debt under this group has increased at the highest rate with the amount outstanding rising from Rs.16 crores to Rs.18,878 crores over the period 1951-88 and the share in the total internal debt rising from a meagre Ø.56 per cent in 1951 to 11.Ø3 per cent by the end of March 1988. The major increase presently, is due to the special deposits by Provident, Gratuity and Superannuation funds which represents the deposits on non-Government Provident Fund schemes started in 1975. These deposits recorded a consistent rise from Rs.95.47 crores at the end of March 1976 to Rs.14,218.81 crores at the end of March 1988. Earlier, investments of deposits of US Government's counterpart funds amounting to Rs.24Ø crores at the end of March 1961 and Rs.627 crores at the end of March 1973 were responsible for the high growth. These were repaid during 1973-74.

Reserve Funds and Deposits

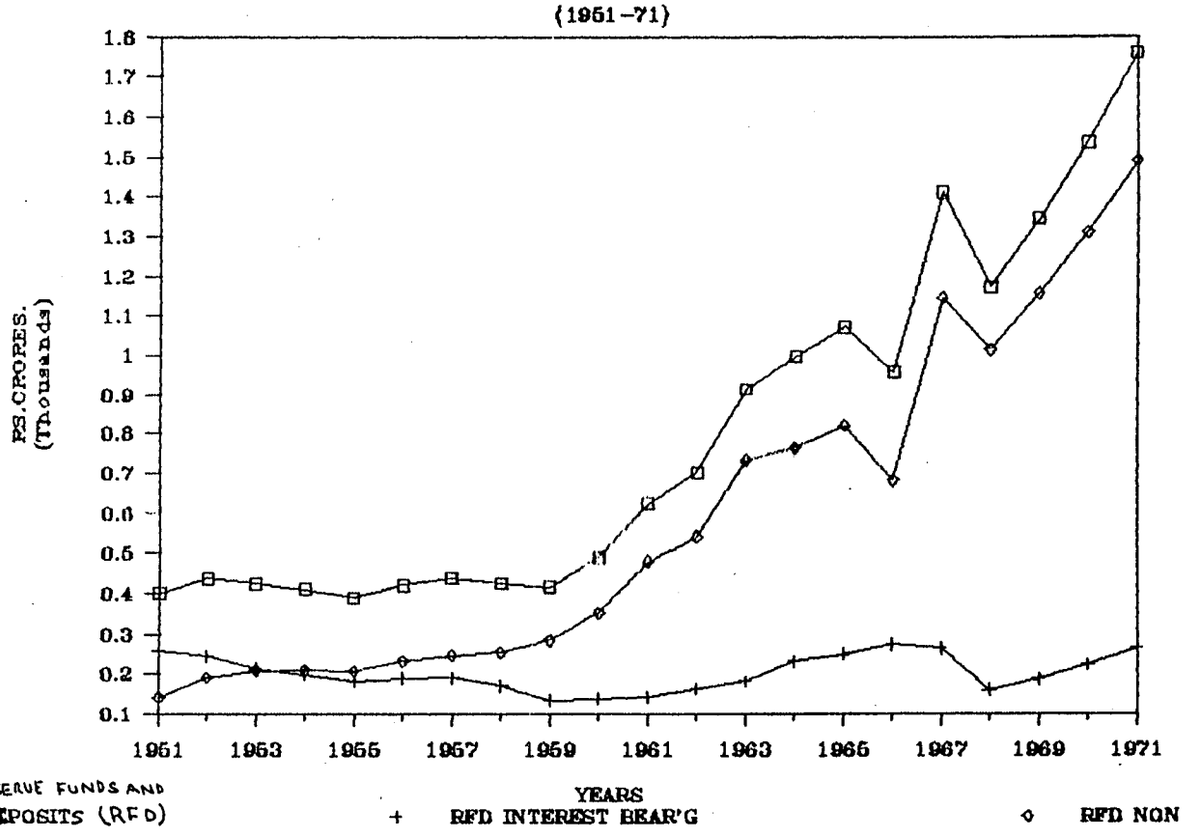
Reserve Funds and Deposits include reserve funds and deposits bearing and not bearing interest (21). The reserve funds and deposits bearing interest declined from Rs.261 crores at the end of March 1951 to Rs.133 crores by end of March 1959 but since then have risen to Rs.1Ø,978 crores at the end of March 1988.(Table 4.6, Graph 4.5). Their share to total internal debt however declined from 9.Ø9 per cent in 1951 to 1.Ø per cent in 1968 but since then has been rising and accounted for 7.29 percent by 1986. The share has however been declining over the last two years (22).

The share of non-interest bearing reserve funds and

GRAPH- 4.5

RESERVE FUNDS AND DEPOSITS.

(1951-71)



RESERVE FUNDS AND DEPOSITS.

(1971-88)

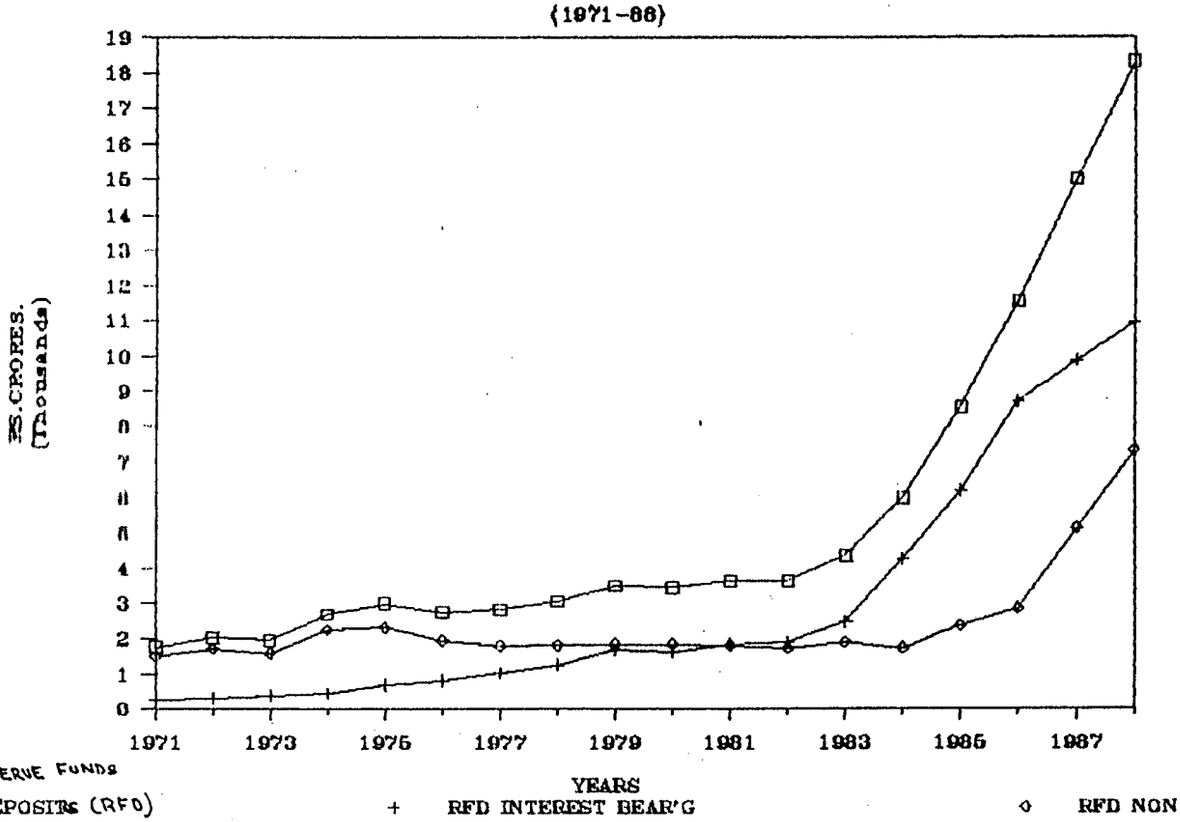


Table 4.6

Reserve Funds and Deposits

(Rs. crores)

Year (end of March)	Interest bearing	Non-interest bearing	Total
1951	261(9.09)	141(4.91)	402(14.00)
1961	142(2.32)	480(7.84)	622(10.16)
1971	267(2.00)	1490(11.14)	1757(13.13)
1981	1832(3.78)	1802(3.72)	3634(7.50)
1982	1905(3.41)	1722(3.08)	3627(6.49)
1983	2464(3.46)	1900(2.67)	4364(6.13)
1984	4274(5.33)	1731(2.16)	6003(7.49)
1985	6198(6.40)	2365(2.44)	8563(8.85)
1986	8704(7.29)	2859(2.39)	11563(9.68)
1987	9854(6.74)	5153(3.52)	15007(10.26)
1988	10978(6.41)	7328(4.28)	18306(10.70)

Note: Figures in brackets are percentage to Total Internal Debt
Source: Appendix Table 1

deposits (23) to Total Internal Debt has been varying over time with the share rising from 4.91 per cent in 1951 to over 10 per cent by 1963 and over 12 per cent by 1974 but since then the share was consistently declining till 1984.It has shown an upward trend since 1986.

Conclusion

The rise in the total internal debt has been contributed by all the components though the shares of all the consistently major components have undergone changes. The share of internal debt to total internal debt has steadily declined from 70.4 at end of March 1951 to 58.15 per cent at end of March 1988. However the trend growth in Treasury bills has been the largest for the overall period 1951-88 with its share to total internal debt increasing from 12.47 per cent to 14.78 per cent over the period. Over the same period the share of market loans has

declined from 5Ø.Ø7 per cent to 27.91 per cent but the share of Treausry bills has increased from 12.47 per cent to 14.78 per cent. The share of special securities issued to RBI since 1981 has risen to 11.5Ø per cent in 1988. The consistently high dependence on Treasury bills and conversion of these into long term securities reflects, that these are no more being used as means of short term finance but have come to be used as means of permanent finance.

The share of small savings to total internal debt has risen over the period but over the last two years a perceptible decline was witnessed. Small savings being genuine savings of the people, a declining trend can be considered bad for the monetary stability in the country. The share of provident funds and other accounts have risen from 3.86 per cent to 14.77 per cent over the period 1951-88 whereas the share of reserve funds and deposits have recorded an overall decline though they recorded the fastest trend rate over the period 1981-88.

Thus in the composition pattern that emerges, those components which do not have any interest element like non-interest bearing reserves and deposits and special floating and other loans have declined as a ratio to total internal debt. Other instruments like provident funds which have a lower rate of interest have generally maintained their share. The share of market loans has declined as these have not gained popularity with the public but the small savings instruments which enjoys fiscal incentives have increased over the period.

The implications of the changing structure of the total Internal debt is discussed in the next chapter.

Notes and References

1. Reserve Bank of India: Report of the Committee to Review the Working of the Monetary System, (Bombay, 1985), p.19.

2. According to the classification followed by the Central Government as well as the Reserve Bank of India, the Central Governments securities, Treasury bills and other Rupee loans forming part of other obligations are clubbed together and referred to as internal debt. The Central Government clubs provident funds and other accounts along with small savings to derive data for Other Liabilities whereas reserve funds and deposits are considered separately as Other Accounts. The Reserve Bank of India considers small savings, provident funds and other accounts and reserve funds and deposits separately. The Central Government as well as Reserve Bank of India refer to small savings, provident funds and other accounts and reserve funds and deposits as obligations of the Central Government and club it along with internal debt to derive the figure of Total Internal Obligations. It is this Total Internal Obligations which we consider and refer to as Total Internal Debt.

3. This refers to the funding operations amounting to Rs.1,925 crores till end March 1981.

4. Dalaya, C., The Internal Debt of the Government of India, (Bombay, 1966),p.23.

5. Velayudhan, T.K., Treasury Bills in India, (New Delhi, 1986), p.6.

6. Public constitutes all investors other than RBI.

7. Velayudhan, T.K., Treasury Bills in India, op.cit., p.59.

8. These are, International Monetary Fund, World Bank, International Development Association, International Fund for Agricultural Development, African Development Fund Bank and Asian Development Bank.

9. This marginal rise in 1987-88 was due to the sum of Rs.1,Ø29.33 crores paid by India to IMF as a result of revaluation of Funds holdings of Indian currency as on April 3Ø, 1987. This 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.

1Ø. The Prize Bond Scheme introduced in April 196Ø, with lottery features was discontinued with effect from July 1,1962 due to non-response. A similar scheme, Premium Prize bond scheme, with more attractive terms and with interest was introduced from

January 1, 1963. However, this scheme continued during 1964-65 along with a new series of bonds called Premium Prize Bonds, 1964. None of these Prize Bonds schemes were successful and finally the new scheme was also discontinued from December 31, 1964.

11. The other instruments include Treasury Savings Deposit Certificates, National Plan Certificates, National Plan Savings Certificates, Defence Deposit Certificates, National Defence Certificates, and National Development Bonds. The details of these certificates are given in the Appendix, Tables 9 and 10.

12. Government of India, Indian Finance, Budget Supplement, (March 4, 1953), p.3.

13. Quoted in Eastern Economist, Budget Number, (March 22, 1957), p.5.

14. Government of India, Lok Sabha Debates, 1960, Vol.39. quoted in Barman, K., India's Public Debt and Policy since Independence,(Allahabad, 1978), p.102.

15. "It has been agreed to recently that proceeds from small savings collected in excess of the present level of Rs. 44.50 crores will be retained by the state responsible for raising them, the amount thus retained being treated as loans from the Centre. This arrangement is designed to promote the small savings campaign more effectively by helping the State Government to link up small savings with schemes of local development in which the people are directly interested." Government of India: First Five Year Plan,p.24.

16. Barman, K., India's Public Debt and Policy since Independence, op.cit., p.101.

17. A NCAER study found that nearly 70 per cent of urban households in 1960 had no knowledge whatsoever of the National Savings Certificates which are being used by the Government to mobilise household Savings. Mishra, P.K., Public Debt and Economic Development in India, (Lucknow,1985), p.93.

18. The main obstacle to the realisation of the full potentialities of the small savings movement is the premature encashments and the frequent withdrawals which defeat the very purpose and deny the investor or his family the tax benefits by breaking the continuity of investment.See, Reserve Bank of India, 'Absorption and Pattern of Ownership of Government Debt in India' Reserve Bank of India Bulletin, February,1960,p.139.

19. 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 PF. The Defence Provident Funds include Defence Savings P F, Defence Service Officers, Personnel P F and Indian Ordinance Factories Workmen P F. The other Provident Funds refer to workmen's contributory Provident Funds, Contributory Provident Pension Fund and other Miscellaneous P.F's.

20. 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, UT Employees Group Insurance Schemes, etc. Special Deposits and other Accounts comprise of Special Securities issued to Foreign government under bilateral trade agreements, Special Securities issued to Rural Electrification Corporation, Special deposits by Provident Superannuation and Gratuity Funds, Special Drawing Rights at IMF, Income-Tax Annuity Deposits, Compulsory Deposits, deposits by UTI, LIC, GIC and its subsidiaries, deposits by IDBI, NABARD, Special securities to Nationalised Banks and National Deposit Scheme.

21. 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.

22. 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 the 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.

23. The Non-Interest bearing Reserve Funds include Famine Relief Fund, Central Road Fund, Development Funds far 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, Liquidation accounts of companies, provident societies, deposits of educational institutions, unclaimed deposits of General Provident Funds, Provident Funds, Savings Banks, etc.

Chapter 5

OWNERSHIP AND MATURITY PATTERN OF TOTAL INTERNAL DEBT: TRENDS AND IMPLICATIONS

The source of Governments borrowing is more important, for the economy than even the magnitude of borrowing. The impact of the Government borrowings on the monetary situation depends on who owns the debt and whether the Government's securities are used for credit expansion leading to an increase in the supply of money in the economy. In this chapter we look into the ownership and maturity pattern of debt and discuss the implications of such pattern. In the next chapter we present the empirical findings.

Ownership Pattern of Total Internal Debt: Trends and Implications

In debt management the source of Government borrowing is more important than even the magnitude of borrowing. The Government may borrow from all sources for fiscal adequacy but different sources of borrowing have different kinds of effects not only on the economic conditions in general but also on the process of mobilisation of resources itself. The inflationary potential of debt depends, among other things, on who owns, how much and what kinds of Government debt and whether the Government securities are used for the creation of credit money resulting in an increase in the supply of money in the economy. According to Abbot, "The form and the character of the pattern of ownership of debt at any time are not accidental. In an overall sense, the pattern of ownership is, on the one hand, end product of debt

management and on the other, a fundamental part of the frame of reference within which debt management policies must be formulated" (1). The pattern of ownership of debt in India shows a steady institutionalisation of Government debt. It may be pointed out here that much of the success of internal borrowing programme was due to the expansion of the captive market. This market consists of Life Insurance Corporation of India, State Bank of India and its subsidiaries, Nationalised Banks, Provident Funds, Commercial Banks, etc.(they have to hold a minimum amount of Government securities), Industrial Finance Corporation, State Finance Corporation, State Governments and Reserve Bank of India. However, it may not be possible to determine the extent of captivity as these holders might have held Government securities even without the imposition of regulations by the Government. The captive market has generally contributed 65 per cent of total internal debt since 1950-51.

The debt held by the captive market helps in the successful operation of the fiscal and the monetary policy as it not only constitutes a stable source of demand for Government securities but also is expected to follow the direction provided by the Government as well as the monetary authority. They would always be guided by the social purpose and would always reflect the policies of the Reserve Bank in checking the inflationary pressures. Seshadri points out that, "a captive market is unavoidable at a certain stage in the history of a developing country" (2). The extent of the captive market prevailing in India can be partially assessed by the extent of total internal debt held by the Government and the nationalised institutions. (3).

Government and Nationalised Institutions Held Total Internal Debt

An attempt has been made to estimate the amount of Total internal debt which is held by the Government directly and indirectly, that is, held on its own account and held by the various other nationalised institutions (4). It may be defined as that debt which is held by the Central and State Governments, RBI (on its own accounts and other accounts), Nationalised Banks, Insurance Companies after nationalisation, IFSFC and local Authorities. The debt held by others than the above mentioned institutions is being referred to here as debt held by the public. On the basis of the above classification, the data have been classified and presented in Table 5.1.

Table 5.1

Government and Nationalised Institutions held Total Internal Debt

(Rs. crores)

Year (end of March)	Government	RBI	Nationalised		Total	Total Internal Debt
			Banks	Insurance Companies		
	1	2	3	4	5 1+2+3+4	6
1951	852(29.67)	679(23.64)	124(4.32)	-	1655(57.62)	2872
1961	1639(26.78)	1621(26.48)	165(2.70)	244(3.99)	3699(59.95)	6121
1971	2991(22.36)	3704(27.69)	730(5.46)	485(3.63)	7910(59.12)	13378
1981	6617(13.66)	16287(33.62)	6322(13.05)	1785(3.68)	31011(64.00)	48452
1982	8607(15.41)	19209(34.39)	7133(12.77)	2012(3.60)	36961(66.17)	55859
1983	8138(11.43)	26449(37.15)	7970(11.20)	2464(3.46)	45021(63.24)	71190
1984	9910(12.37)	27008(33.70)	8935(11.15)	2991(3.73)	48844(60.95)	80141
1985	12339(12.75)	33459(34.56)	10548(10.90)	3470(3.58)	59811(61.79)	96804
1986	17003(14.23)	39859(33.37)	13909(11.64)	4022(3.37)	74793(62.61)	119462
1987	21412(14.64)	48851(33.40)	18519(12.66)	4661(3.19)	93443(63.89)	146248

Note: Figures in brackets are percentages to Total Internal Debt.
Source: Appendix, Tables 1,5 and 6.

The trend growth rate of the total internal debt held by the Government and the nationalised institutions has been higher than the trend growth rate of the debt held by the public over

the period 1951-87. The share of Total internal debt held within the Government and its nationalised institutions has risen from 57.62 per cent (Rs.1,655 crores) at the end of March 1951 to 63.89 percent (RS.93,443 crores) at the end of March 1987. The debt held by the Government itself has declined over the period to nearly half of its holdings at the end of March 1951 whereas the shares of RBI's holdings and that of commercial banks have risen. This is because the Government has succeeded in institutionalisation of debt. The share of nationalised insurance companies have however remained stable. The debt held by the Government itself can be called as a book adjustment debt - a debt in the accounting sense. However, from the point of view of cost of servicing debt such debt can be considered as fiction. However, the monetary implications of debt held by other different institutions is different on the economy, which needs careful investigation.

The share of public held debt has declined from 42.38 per cent (Rs.1,217 crores) at the end of March 1951 to 36.11 per cent (Rs.52,8Ø5 crores) at the end of March 1987. This decline reflects the investment preferences of the public towards small savings instruments, provident funds and other instruments of Government borrowings despite emphasis laid on mobilizing small savings and concessions in the form of incentives granted on these.

To study the implications of the varied ownership pattern of total internal debt, we consider separately each holder of the debt and analyse its implications.

Reserve Bank of India and Holdings of Government Securities

The Reserve Bank of India invests in Government

securities both on its own account and on account of others which include Administrator's Safe Custody Deposit Account and Imperial Bank of India's Share Capital Compensation Account (5). The Reserve Bank of India holds both Government securities and Treasury bills. The inflationary impact on the economy of Government borrowing from the Reserve Bank depends on the total amount of both the Government securities and Treasury bills held by it. The conditions prevailing in the Indian money market justify the large scale buying of Government securities by Reserve Bank and then selling them to the public later. This results in large scale holdings of Government Securities by the Reserve Bank of India at any point of time (6).

The holdings of Government securities and Treasury bills by RBI increased from Rs.679 crores at the end of March 1951 to Rs.48,851 crores at the end of March 1987 (Table 5.2).The secular

Table 5.2

RBI's Holdings of Government Securities

(Rs.Crores)

Year (end of March)	Central Government Securities	Treasury Bills	Special Securities Issued to RBI	Total
1951	404(14.07)	275(9.57)	-	679(23.64)
1961	735(12.01)	886(14.47)	-	1621(26.48)
1971	1486(11.11)	2218(16.58)	-	3704(27.69)
1981	3858(7.96)	11844(24.45)	585(1.21)	16987(33.62)
1982	5144(9.21)	9955(17.82)	4110(7.36)	19209(34.39)
1983	6334(8.89)	15905(22.34)	4210(5.91)	26449(37.15)
1984	7791(9.72)	14647(18.28)	4570(5.70)	27008(33.70)
1985	9819(10.19)	18985(19.61)	4650(4.80)	33454(34.56)
1986	10423(8.72)	24249(20.30)	5187(4.34)	39859(28.60)
1987	10423(7.12)	18561(12.69)	19867(13.58)	48851(33.40)

Note: Figures in brackets are percentages to the Total Internal Debt.

Source: Appendix, Tables 5 and 6.

trend shows a decline in the share of dated securities whereas

the share of Treasury bills in the holdings of RBI to total internal debt rose from 9.57 per cent at the end of March 1951 to 24.44 per cent at the end of March 1981 and since then has been declining. The decline has simultaneously to be considered along with special securities issued to RBI which consists mainly of Treasury bills converted into dated securities the share of which has risen from 1.81 percent at the end of March 1981 to 13.58 percent at the end of March 1987.

The holdings of Treasury bills include a large amount of ad hoc Treasury bills, reflecting the rising dependence on the monetary authority by the Government in mobilising financial resources. (Table 5.3).As ad hoc Treasury bills can only be held by the Reserve Bank of India they lead to the increase in the high power money.The normal Treasury bills can be sold in the market to the other investors but generally are rediscounted with the RBI very soon and hence are held by RBI till maturity.

Table 5.3

Treasury Bills Outstanding

(Rs. Crores)

Year (end of March)	Treasury Bills Oustandings		
	Ad hoc	Normal	Total
1957	836	-	836
196Ø	1271	27	1298
1971	2429	87	2516
1981	936	11914	1285Ø
1986	1Ø28Ø	15734	26Ø14
1987	13645	6231	19876

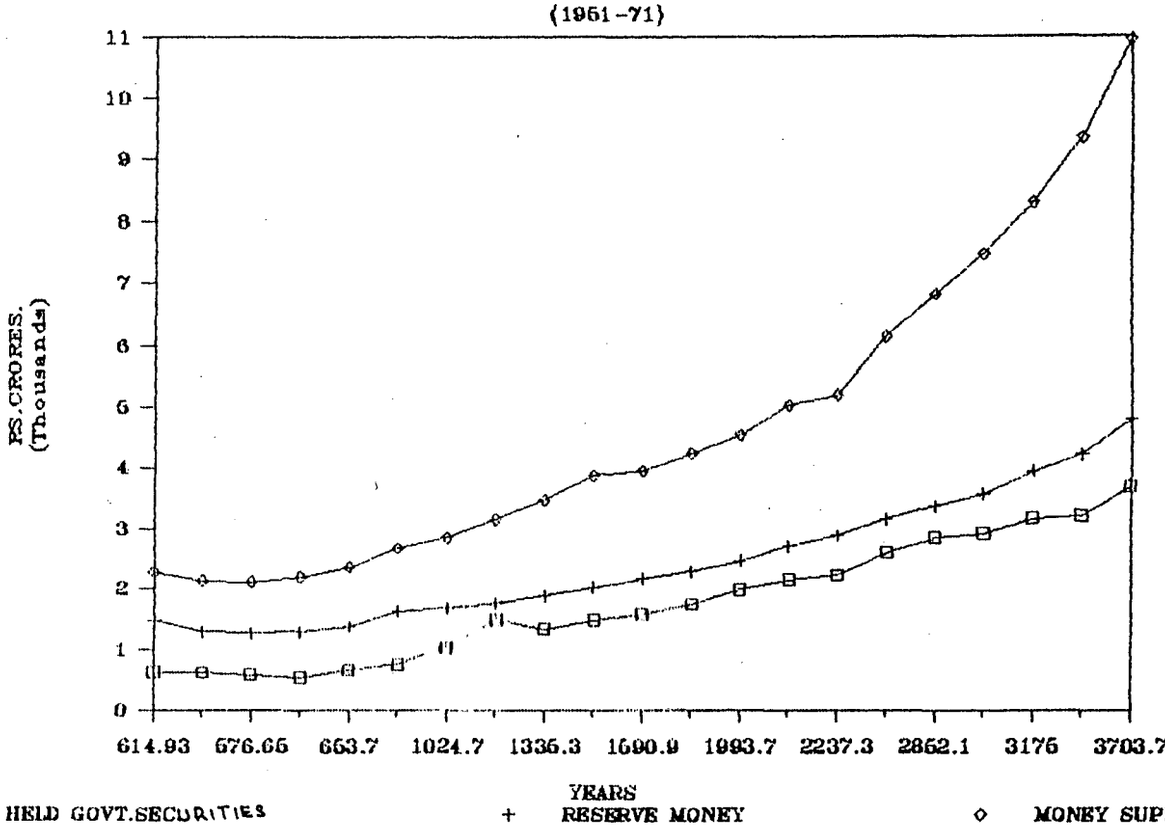
Source: Finance Accounts, Government of India.

The increasing reliance on Reserve Bank credit through the Government securities leads to increase in reserve money through net RBI Credit to Government (Table 5.4, Graph 5.1). The increase in net RBI credit increases reserve money (7) and

GRAPH- 5.1

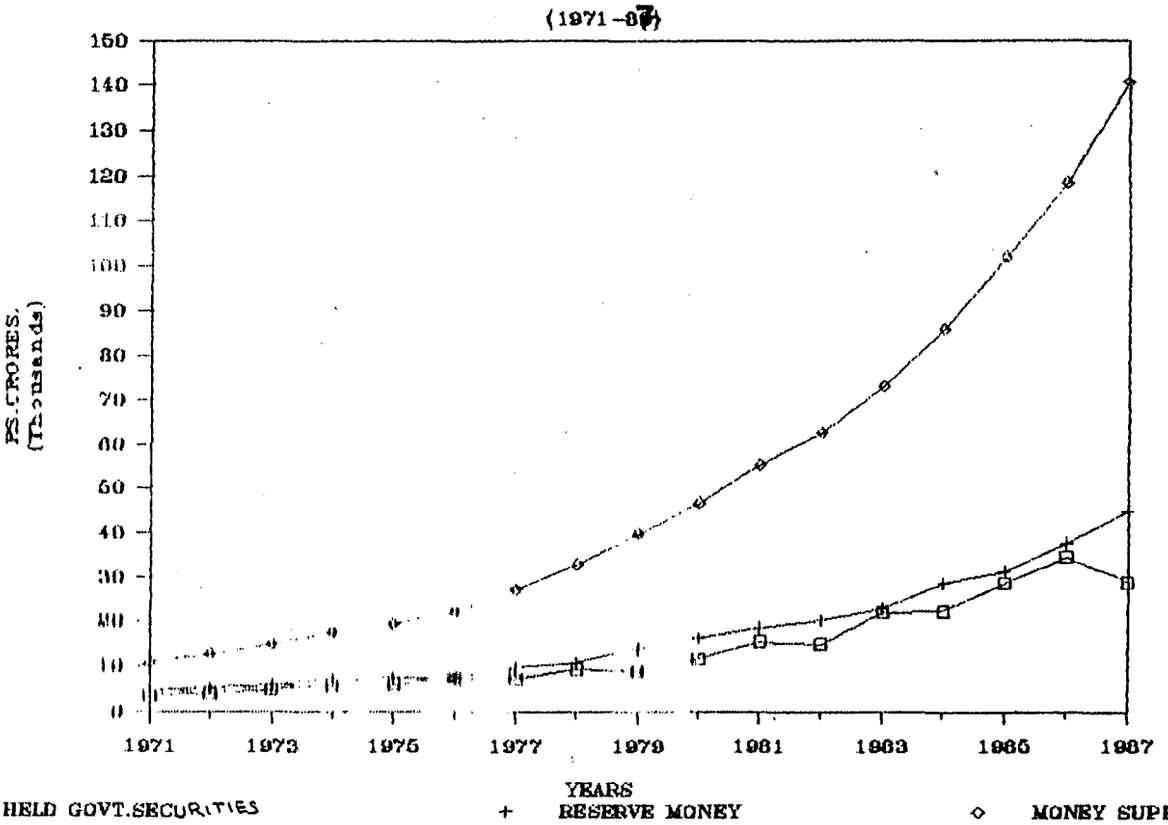
RBI HELD GOVT.SEC.& MONEY SUPPLY.

(1961-71)



RBI HELD GOVT.SEC.& MONEY SUPPLY.

(1971-87)



thereby money supply which is a certain multiple of the increase

Table 5.4

Reserve Money and Net RBI Credit to Government

(Rs.Crores.)

Year (end of March)	Government Securities with RBI	Net RBI credit to Central Government	Reserve Money	Money Supply
1951	679	-	1489	2287
1961	1621	-	2232	3964
1971	3704	3569	4814	10948
1981	16287	14644	18788	55358
1982	19209	17764	20463	62426
1983	26449	22062	23110	72868
1984	27008	25385	28824	85899
1985	33454	28020	31477	101957
1986	39859	33920	37858	118338
1987	48851	45513	44813	140633

Source: Appendix, Table 15.

in reserve money **(8)**. The following equation specifies the relation between money supply, reserve money and the money multiplier.

$$M = m.RM.$$

where, 'M' is the money supply in nominal terms, 'm' is the money multiplier and 'RM' is the reserve money.

The value of the money multiplier depends on the currency deposit ratio and factors determining the cash reserves of the banks. **(9)**

The increase in reserve money leads to increase in the money supply which may further fuel inflation. Though the precise relationship between money and prices has been an area of controversy the interaction is generally summarised in the form of the following equation-

$$M/P = f(Yr, i)$$

where,' M' is nominal money held by the public, 'P' the

price level, 'Yr' is real income, and 'i' is interest rate. This demand function for money can be re-stated as a price equation and can be formulated as follows, on the assumption that the demand for money is not significantly influenced by the rate of interest,

$$\text{Log } P = \alpha - \beta \text{ Log } Yr + \tau \text{ Log } M$$

According to this formulation, an increase in real output depresses the price level and an increase in moeny supply raises the price level (1Ø). The regression equation estimated on the log variables for the period, 1951-87 is as follows:

$$P = 1.ØØ + Ø.81ØM - Ø.347\ Y \qquad R^{-2} = Ø.987$$
$$\qquad\qquad (9.932)\ \ (-1.56) \qquad DW = 1.565$$
$$\qquad\qquad\qquad\qquad\qquad\quad F = 137Ø$$

where, P=WPI,M=M1 and Y=NNP at factor cost at constant prices.

Given the relationship, control of the price level would require a control over reserve money and hence net RBI credit to Government. This is the link between RBI's holdings of Government securities and money supply and price level. In other words ,maintaining monetary stability would require control of fiscal deficit or else change in the pattern of ownership of debt whereby Government dependence on RBI for its credit needs is reduced.

It is pertinent to point out two things here. Firstly, if net RBI credit to Government which includes Government securities as well as Treasury bills has implications on reserve money and money supply, then this is not fundamentally different from 'deficit financing'. This has also been suggested by the Chakravarty Committee which observes, "The Budgetary deficit as defined at present does not reveal the full extent of the Government's reliance on Reserve Bank Credit. A sizeable portion

of new issues of Government securities is taken up by the Reserve Bank in the absence of adequate response from the public and the financial institutions including banks. The effects of the resultant increase in reserve money are no different than what would be the case if Reserve Bank credit was obtained against sale of Treasury bills. The latter would however make an important difference to the Budgetary deficit. In these circumstances, the exclusion of additions to Reserve Bank's holdings of dated securities from the measure of budgetary deficit, as currently defined, severely understates the monetary impact of fiscal operations. A suitable modification in the definition of the budgetary deficit, therefore, appears to be warranted.....An unambiguous and economically meaningful measure of the monetary impact of fiscal operations is provided by the change in Reserve Bank Credit to Government." (11). Secondly, given the ownership pattern of Government securities and Treasury bills the funding operations done by the Government, whereby Treasury bills are converted into long dated securities would seem to make no difference in the amount of RBI credit to Government and therefore on reserve money and money supply. The value of such Treasury bills funded since July 1958 to end March 1981 was Rs.1,925 crores. In addition, Treasury bills converted to dated securities amounted to Rs.19,650 crores at end of March 1987.

Implications of Bank held Total Internal Debt.

The share of holdings of Central Government's securities and Treasury bills by banks (other than RBI) (12) as a percentage

of total internal debt has marginally increased from 12.78 per cent at the end of March 1951 to 13.82 per cent at end of March 1987. (Table 5.5) . The high holdings as well as changes in the holdings by the banks reflects the changes made in statutory liquidity ratio requirements.

The high holdings of the banking sector is for two reasons. Firstly, in the absence of a developed bill market, banks go in for Government securities which serve as liquid and income yielding assets. Government securities serve as a safe investment outlet for banks and with the recent rising trend in the interest rates on Government securities, profitable as well. Secondly, by legislation, commercial banks are required to keep a portion of their deposits in the form of cash, gold and other approved securities as prescribed from time to time, under the reserve requirements.

Table 5.5

Bank held Total Internal Debt

(Rs.crores)

Year (end of March)	Government Securities			Total of Banks held Debt	Total Debt
	Nationa--lised Banks	Other Banks	Treasury Bills		
1951	124(4.32)	233(8.11)	10(0.35)	367(12.78)	2872
1961	165(2.70)	284(4.64)	26(0.43)	475(7.76)	6121
1971	730(5.46)	146(1.09)	40(0.30)	916 (6.85)	13378
1981	6322(13.05)	521(1.08)	521(1.08)	7364(15.20)	48452
1982	7133(12.77)	758(1.36)	151(0.27)	8042(14.40)	55859
1983	7970(11.20)	734(1.03)	1155(1.62)	9859(13.85)	71190
1984	8935(11.15)	797(0.99)	938(1.17)	10670(13.31)	80141
1985	10548(10.90)	980(1.01)	298(0.31)	11826(12.22)	96804
1986	13909(11.64)	1235(1.03)	46(0.04)	15190(12.72)	119462
1987	18519(12.66)	1675(1.15)	16(0.01)	20210(13.82)	146248

Note: Figures in brackets are percentage to Total Internal Debt
Source: Appendix,Tables 5 and 6.

The implications of the debt held by the banks (other

than RBI) is controversial. In India, the use of statutory reserve requirements are made on the presumption that borrowing by the Government from the banking sector would result in a decrease in the liquidity of banks and would therefore tend to reduce bank's lending to the private sector. Thus, it would help in mopping up the available additional liquidity prevalent in the banking sector of the country. Gupta also opines, " Increase in banks credit to the Government sector leaves M (money supply) as well as bank's total credit 'more or less' unchanged. It simply reallocates bank's credit in favour of the Government at the cost of the commercial sector." **(13)**. Mishra points out that so far as the Government borrowing from the commercial banks is at the expense of bank loans and advances to other parties, there is no inflationary effect **(14)**. Krishnaswamy also suggests that , "Government borrowing from the commercial banking system on a long term basis is considered to be a non-inflationary source of finance for the plans on the argument that ultimately it amounts to absorption of the saving of households via the financial institutions."**(15)**. On the other hand, it is argued that as banks can borrow cash from RBI against Government securities or through discount of Treasury bills and thus if the ratio of Government securities in the asset portfolio of commercial banks goes up, the banks would operate on a lower cash reserve ratio. This would increase the money supply though reserve money would not be affected **(16)**. Patnaik also holds a similar view and argues that, "the creation of liquid assets' for banks (cash plus securities) primarily by the budget deficit (inclusive of 'market borrowing' from banks) increases the potential credit capacity of banks and hence potential money supply through a credit

multiplier whose value is the reciprocal of the sum of CRR and SLR." (17).

However, with the requirements of SLR and limits to refinance made available by the Reserve Bank, increase in the cash balances of banks by the use of gilt-edged securities for discounting or borrowing by using them as collateral may not be possible. In addition, the nationalised banks would not aggravate inflationary pressures in the economy when the official policy would consider it undesirable. Instead the banks can be expected to reduce lending and add to their portfolios of Government securities, whenever the Government is anxious to initiate a disinflationary trend in economy (18). Our own empirical results, presented in the next chapter, show that the bank holdings of Government securities have no perceptible impact on money supply and hence the price level.

Internal Debt held by Others

The Government's securities are also held by Insurance Companies, Provident Funds, Local Authorities, non-residents, financial corporations and semi-Government bodies like municipal corporations and port trust funds, etc. Amongst these, the largest subscriber to Government securities are insurance companies especially Life Insurance Corporation of India.

The holding of securities by LIC are statutorily fixed by the Government (19). It has to follow an investment pattern whereby 75 per cent of its controlled Fund is invested in Central and State Government securities (not less than 50 per cent) and socially oriented sectors including Public Sector, Cooperative

Sector, House building, etc. The amount of investment by LIC in Government securities has increased from Rs.113 crores at the end of March 1951 to Rs.4,661 crores at the end of March 1987.

Similarly, the investment pattern of Employees Provident Funds is statutorily regulated by the Government, whereby not less than 50 per cent of funds have to be invested in Central and State Government Securities or securities where the Central and State Governments have fully and unconditionally guaranteed the principal and interest thereon. Of the remainder, not less than 30 per cent has to be invested in 7-year National Savings Certificates or Post Office Time Deposits and not more than 20 per cent in Special Deposit Scheme of Central Government. According to the limited data available on investment by provident funds in Government securities , the investment has risen from Rs.110 crores in 1956-57 to Rs.2,600 crores in 1981-82.

Investments by LIC and provident funds in Government securities represent the saving pattern of the household sector. These contractual savings are better than other forms of savings as they create a definite obligation on the part of the savers to set aside regularly a certain portion of income which would otherwise be consumed.

The subscription by other investors is negligible. Regarding individuals, their contribution is very small. They held 0.87 percent of total internal debt at end of March 1951. Since then, their share has been declining and at end of March, 1982 for which data is available, it was negligible. Seshadri remarks that, "individual investment in gilt-edged securities is negligible -- and is not very considerable in other countries

either." (20).

It is generally observed in the less developed countries, that non-bank sectors tend to hold only a small part of their assets in liquid form and these also principally in a monetary form. Thus, the market for financial assets is limited and the Government finances itself, mainly by recourse to the banking system. For these countries, the holdings of the Government debt by the non-banking sector are a small part of total outstanding debt. In the developed countries, Governments have been able to finance themselves from large savings of the non-bank investors and have been able to increase their debt without recourse to the banking system (21).

They represent the genuine savings of the people and are hence indirect investments by the public in Government securities. As they mop up available surplus funds in the economy their impact on the price level should be deflationary. But the holdings of Government securities by these groups of investors is so small that the impact on the price level would not be even perceptible and so they can be considered to be neutral to the money supply and price level.

Implication of Small Savings and Provident Funds

Small savings which are an important constituent of total internal debt mobilise genuine financial savings of the people and is considered to have a dampening effect on inflationary situation. Sreekantaradhya suggests, "In order to minimise the inflationary dangers of growing public debt, the share of non-market debt in the total debt should rise. Small savings schemes

play a crucial role in this regard." **(22)**. If the growth of Government debt should not have inflationary effect, the small savings scheme must attract more and more funds from the genuine savings of the people. If people save, the task of restraining consumption by taxation and other measures becomes easier. Further, as pointed out in the Memorandum of Evidence of H.M. Treasury submitted to the Radcliffe Committee, "If they (people) can be encouraged to lend their savings direct to the Government, as opposed to depositing them in banks or purchasing private securities of one kind or another, the task of restraining expenditure financed from credit (the lack of monetary policy in the strict sense) is also made easier **(23)**. Thus, theoretically the mobilisation of financial resources through small savings and Provident Funds should have a negative relation to the price level and hence they should be encouraged. However, if Government borrowings activate idle balances then to that extent the income stream is expected to rise and lead to increase the inflationary trend.

Implications of Maturity Pattern of Total Internal Debt

The maturity pattern of the debt has important implications for monetary stability as lengthening of the maturity structure tends to shift the ownership of the debt from those who hold Government securities as a money substitute to genuine investors. The debt is held by the investors in various maturity groups viz. short term, medium term and long term. Investing institutions prefer maturity groups in accordance with their investment policy which is determined partly by the

structure of their liabilities and partly by repayment of loans and new issues. In general, commercial banks prefer a maturity-mix consisting of short and medium whereas insurance companies and Provident Fund organisations prefer long to very long maturity periods.

The monetary impact of the rising public debt depends on the manner in which the maturity composition of the outstanding debt is arranged. In a developing economy which is prone to inflation, a preponderance of short and medium term is undesirable on account of the monetisation of the debt. Treasury bills which are the most important component of short term debt are near money securities. They possess a high degree of moneyness and consequently add to liquidity in the economy leading to monetary instability. The ratio of Treasury bills to total internal debt increased from 12.47 per cent at end of March 1951 to 26.52 per cent at end of March 1981 and then declined to 14.78 percent at end of March 1987 (Table 5.6) whereas the share

Table 5.6

Total Internal Debt

(Rs. crores.)

Year (end of March)	Treasury bills	Market Loans	Total Internal Debt
1951	358(12.47)	1438(50.07)	2872
1961	1106(18.07)	2571(42.00)	6121
1971	2516(18.81)	4385(32.78)	13378
1981	12851(26.52)	15666(32.33)	48452
1982	10273(18.39)	18579(33.26)	55857
1983	17431(24.49)	22359(31.41)	71190
1984	15756(19.66)	26389(32.93)	80141
1985	19452(20.04)	30497(31.50)	96804
1986	26014(21.78)	35304(29.55)	119462
1987	19876(13.59)	40053(27.39)	146248
1988	25301(14.78)	47759(27.91)	171134

Note:Figures in brackets are percentages to Total Internal Debt
Source:Appendix,Table 1.

of market loans has declined from 50.07 percent at end of March 1951 to 32.33 percent at end of March 1981 to 27.91 percent at end of March 1988.

Treasury bills are used for the purpose of monetisation of holdings as revealed from the Table 5.7. The Treasury bills are bought during the year by banks, State Governments and other institutions but are soon rediscounted with the Reserve Bank raising the holdings of Treasury bills by the Reserve Bank.

Table 5.7

Sales and Outstanding of Treasury Bills

(Percentages)

Year	Sales (during the year)				Outstanding (end of March)			
	RBI	Banks	State Govt.	Others	RBI	Banks	State Govt.	Others
1970-71	85.88	2.92	8.99	2.22	96.39	0.64	1.15	1.83
1975-76	74.93	15.63	8.08	1.36	87.71	7.48	4.04	0.76
1980-81	18.54	69.55	9.33	2.58	92.16	4.05	3.38	0.40
1985-86	39.71	50.50	7.95	1.84	93.22	0.18	5.84	0.77
1986-87	61.59	27.00	10.70	0.70	93.38	0.1	6.38	0.16
1987-88	82.18	3.69	13.50	0.62	88.32	0.17	11.06	0.44

Source: Report on Currency and Finance, RBI.

The rise in the share of RBI holdings of Treasury bills outstanding at the end of the year shows monetisation of Treasury bills by holders other than RBI. This leads to increase in net RBI credit to Central Government which further leads to increase in reserve money and money supply.

The maturity pattern of market loans has undergone a change since 1951 (Table 5.8). This reflects the pursuance of deliberate debt management policy in India. In 1951, only 36.10 per cent of rupee loans had maturity period of more than 10 years and 17.93 per cent of the loans were in the form of undated

securities. These undated securities were repaid by the end of

Table 5.8

Maturity Pattern of Government of India Market Loans

(Rs. crores)

Year (end of March)	Maturity Pattern of Government Securities				
	Undated	Over 10 Year	5-10 Years	Less than 5 Years	Total
1951	258(17.93)	519(36.10)	342(23.81)	319(22.16)	1438
1961	258(10.03)	690(26.85)	756(29.42)	867(33.70)	2571
1971	258(5.88)	1886(43.01)	635(14.49)	1606(36.62)	4385
1981	258(1.65)	10960(69.97)	2583(16.49)	1864(11.90)	15665
1982	258(1.39)	12810(68.95)	3053(16.49)	2458(13.23)	18579
1983	258(1.15)	15881(71.03)	3076(13.76)	3144(14.06)	22359
1984	258(0.98)	19113(72.43)	3736(14.16)	3282(12.44)	26389
1985	258(0.85)	22270(73.02)	4544(14.90)	3425(11.23)	30497
1986	250(0.71)	25984(73.60)	5469(15.49)	3601(10.20)	35304
1987	-	30905(77.16)	4793(11.97)	4355(10.87)	40053
1988	-	38454(80.40)	4691(9.80)	4685(9.80)	47830

Note: Figures in brackets are percentage to Total.
Source: Appendix, Table 4.

March 1987. The rupee loans with maturity period of more than 10 years accounted for 80.4 per cent of the total rupee loans at the end of March 1988. The share of securities with maturity of less than 5 years reduced from 22.16 per cent at the end of March 1951 to 9.8 per cent at the end of March 1988 and of those with a maturity between 5 to 10 years declined from 23.81 per cent to 9.8 per cent over the same period. The shift in the maturity pattern is perceptible since 1970-71. The emphasis on long term debt emerges from Table 5.9 which details the maturity period of the loans floated each year. The strong shift in the maturity structure of marketable debt from short term to long term reflects the growing concern of the monetary and fiscal authorities to the problem of rising prices. The shift was necessary for the following reasons: (1) to correct the imbalance in the maturity distribution of the debt as reflected, in the rather heavy concentration in the short and medium term groups

before 1970, (2) to reduce the additional liquidity in the

Table 5.9

Maturity Pattern of Market Loans Floated During the Year

(Rs.Crores.)

Year	Less than 5 years	5-10 years	10-15 year	Above 15 years	Total
1950-51	-	(.03)	30(99.97)	-	30
1960-61	-	83(45.74)	-	98(54.26)	181
1970-71	-	56(13.00)	-	372(87.00)	428
1980-81	-	691(24.09)	467(16.25)	1713(59.66)	2871
1981-82	320(10.04)	579(18.12)	390(12.23)	1902(59.61)	3191
1982-83	233(5.60)	145(3.47)	560(13.44)	3228(77.49)	4166
1983-84	-	741(17.94)	599(14.50)	2790(67.50)	4129
1984-85	-	641(13.96)	119(2.59)	3831(83.45)	4591
1985-86	-	643(11.16)	115(2.00)	5006(86.84)	5764
1986-87	-	373(5.87)	179(2.81)	5799(91.32)	6351
1987-88	-	404(5.17)	310(3.96)	7107(90.87)	7821

Note: Figures in brackets are percentages to Total Internal Debt.
Source: Appendix, Table 4.

economy which led to monetary pressure of inflation, (3) to establish a link between the maturity period of Government loans and the returns from the public sector enterprises with a long gestation period, (4) to inspire confidence through the creation of a stable long term Government bond market and to help maintain such confidence in the capital market,and finally, (5) to simplify the constant problem of debt management **(24)**. However,comparing the maturity structure of India's debt with that of the USA and the UK, the share of short term loans in these countries was 73 per cent and 34 per cent respectively, in 1958-59. But this type of comparison is only an indication of economic trends. In developed countries the funds are required for short period to fulfil the temporary requirements, but in the developing countries, the requirements of the Governments for funds are long term so as to achieve economic development **(25)**.

The rise in the maturity period of the market loans has

been followed with higher rates of interest. A market loan for the period of 13 years floated in 1950-51 carried interest of only 3 per cent whereas that floated in 1981-82 for a similar period carried interest rate of 7.00 per cent per annum. The 15-year loan floated in 1957-58 was at a interest of 4.00 per cent whereas 15 year loan floated in 1978-79 carried interest rate of 6.25 per cent per annum. The rising trend in interest rate is more sharply focussed in the case of 20-year loans. In 1960 such loans carried interest of only 4 per cent per annum compared to 11.50 per cent on loans floated in 1987-88. The rise in the interest rates was necessitated to attract funds in the money market, as interest rates in the economy have generally been rising over the period. A detailed discussion on interest rates follows in the later Chapter.

Small savings and provident funds mobilise financial resources from the public for investment purposes. Small savings in the form of deposits and certificates with longer maturity would provide funds for investment in long term projects. In the case of small savings, savings in deposits and certificates with maturity period of more than 5 years have risen from 1.99 per cent of the total internal debt at the end of March 1971 to 10.75 per cent at the end of March 1981 to 13.84 per cent at the end of March 1987. Provident Funds also make available to the Government long term funds.

Conclusion

The inflationary or deflationary effect of public debt depends on who owns the debt and whether this can cause an

increase in the supply of money.

In India, the captive market has been holding nearly 65 per cent of total internal debt since the planning started in the country. The presence of captive market ensures a stable source of demand for Government securities as well as helps the successful operation of the fiscal and the monetary policy. The Government has been successful over the years in institutionalisation of debt. The shares of holdings of the Government and its nationalised institutions have risen over the period, though Government's holdings on its own account have declined over the same period. The implications of debt held by various institutions have different implications on the monetary situation. The debt held by the Government on its own account is considered to be a book adjustment debt. The debt held by the Reserve Bank of India has most pronounced implications. The holdings of Government securities and Treasury bills by RBI amounts to increase in the net RBI credit to Government leading to a rise in reserve money and money supply. The rise in money supply influences the price level. The implications of the debt held by banks (non-RBI) on money supply and prices is controversial. Some economists believe that the debt held by the banks leads to reallocation of funds between the Government and the non-Government sector and thus not expected to have any perceptible influence on the price level. The monetary tool of statutory liquidity ratio is used on the basis of this belief. However, it is held by others, that the debt held by the banks prompts it to operate at lower cash reserve ratio and hence leads to excessive credit creation and money supply which would affect prices. The debt held by other institutions like LIC and

provident funds is assumed to have neutral impact on the monetary conditions.

The debt held by individuals in the form of small savings and provident funds are expected to have a negative relation with price level as they mop up the extra purchasing power available with the people.

The maturity pattern of debt also has implications on the monetary stability of the economy. Treasury bills are near money assets and have inflationary implications. Concerted efforts seem to have been made to curb the use of this instrument since the early eighties. Since 1970-71, increasing reliance on long term loans has been witnessed. The increase in the share of long term loans to total internal debt reduces debt management problems and provides funds to the Government to invest in developmental long gestation period programmes.

Notes and References

1. Abbott, C.C., The Federal Debt Structure and Impact, (New York, 1953), p.26

2. Seshadri, R.K., "Gilt-edged Investments", Address delivered at a seminar on Investment Policy of Financial Institutions, September 1976 at Bombay organised by the Indian Merchants Chambers, Economic Research and Training Foundation, Reserve Bank of India Bulletin,(September, 1975),p.629.

3. As investments made by the Provident Funds in the Government securities would not be included here, it cannot therefore strictly be called as representing the captive market.

4. Some adjustments have been made to derive data on Nationalised Banks as the data on holdings of State Bank of India and its subsidiaries and that of Nationalised Banks was available only for the period 1969 onwards. For the period prior to 1969,estimates have been made on the basis of percentage share of SBI and its subsidiaries holdings to to the total securities held by the Banking Sector for the year 1968-69. Market loans in course of repayments, compensation and other bonds, Special Securities issued to RBI and Special Floating and Other loans have also been considered to be held by Government of India. Regarding Treasury bills, the ownership pattern is available, but the classification has undergone a change with effect from 197Ø-71 onwards. Earlier, the data was classified as Treasury bills held by Reserve Bank of India, State Governemnts and other Approved Bodies and Public. From 197Ø-71 onwards, the data is classified as Treasury bills held by Reserve Bank of India, Banks (Commercial and Cooperatives), State Governments and others. To maintain consistency, following adjustment is done. For the period prior to 197Ø-71, data on ownership of Treasury bills held by Reserve Bank of India and State Governments and other Approved Bodies has been considered as held by Government and Nationalised Institutions and for the period after 197Ø-71. Treasury bills held by Reserve Bank, Banks and State Governments has been considered to constitute the Government held part of Treasury bills. Also, the data on the Treasury bills outstanding since 1975-76 at the end of March of a year is net of bills rediscounted with RBI during the year, from 1975-76 onwards. This discrepancy which mars the consistency of data, however continues to exist. No adjustment is done as it was felt that it would not make much differences to the results as the share of Treasury bills held by non RBI institutions has always been very low. In this case, holdings of Treasury bills other than held by RBI has be clubbed together with debt held by Government.

5. The holdings of Government securities by RBI on account of others have always been a small amount. The figures in

Table 5, Appendix, bear this.

6. "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.See Reserve Bank of India, 'Survey of Ownership of Government Debt,' Reserve Bank of India Bulletin, (Feb, 196Ø), p.14Ø.

7. Reserve Money represents those liabilities of the Central bank and the government that are deemed to be eligible as reserves to be held by banks for the purpose of deposit money creation in a system where the fractional reserve ratio governs the creation of deposit money. In India, reserve money is the sum total of currency with the public and bankers deposits with RBI cash with banks and other deposits with RBI, which are liabilities of the RBI to the non-bank sector. In India, reserve money consists predominantly of currency with the public.

8. Gupta, S.B., Monetary Planning for India, (Delhi, 1979), p.56.

9. Reserve Bank of India., Report of the Committee to Review the Working of the Monetary System, (Bombay, 1985), p.143.

1Ø. Ibid., p.142.

11. Ibid., p.153.

12. The data holdings of Treasury bills by the banking sector (other than RBI) is available only from 197Ø-71 onwards. Price to that data has been adjusted taking the ratio of Treasury bills held by the banking sector for the two year 197Ø-71 and 1971-72 to the amount of total Treasury bills.

    The data on holdings of Treasury bills by nationalised banks is not available. Therefore the Treasury bills have been seperately provided in the Table

13. "more or less", because we are assuming that a change in the asset composition of banks (resulting from increased borrowing from them) leaves the value of the money multiplier unchanged, but this may not be always true."See Gupta, S.B., Monetary Planning for India, op.cit., p.57.

14. Mishra, D.K., Public Debt and Development in India, (Lucknow, 1985), p.232.

15. Ibid., p.224.

16. Ibid., p.223.

17. Patnaik, P.,' Public Debt as a Mode of Financing Public Expenditure: Some Comments',Economic and Political Weekly, Vol.XXI, No.35,(August 30,1986),p.1549.

18. NCAER, Management of Public Debt in India ,(Delhi, 1965), p.44.

19. LIC was nationalised on January 19, 1956 and since then it has to follow Government regulation of investment of funds under the provisions of Section 27(A) of the Insurance Act,1938. This has been amended in 1950, 1958 and then again in 1975.

20. Seshadri, R.K., Gilt-edged Investments, op. cit.,p.633.

21. Sreekantaradhya, B.S., Public Debt and Economic Development in India, (India, 1972) p.124.

22. Quote in 'Ownership Distribution of Funded Government Debt in India, 1930-56', RBI Bulletin, March 1963, p.325.

23. Committee on the Working of the Monetary System Report, Memorandum of Evidence, (London: HMSO., 1959), p.100.

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Chapter 6

EMPIRICAL RESULTS: IMPLICATION OF OWNERSHIP OF TOTAL INTERNAL DEBT

In the previous chapter, we have outlined theoretically the implications of the pattern of ownership of total internal debt. It was seen that the implications varied if the debt was held by different holders. The implication of debt which has been emphasised in the previous chapter viz,the relationship between ownership of debt and inflationis strongly influenced by the monetary - fiscal policy mix.

In the present chapter, an attempt has been made to establish a causal relationship between the ownership pattern of debt and its inflationary impact. To establish the causal relationship Granger-Sims test has been used which helps to determine causality in a bivariate series and which has been widely used in monetary economics. On the basis of theoretical discussion in the previous chapter, the test has been conducted to determine causality between reserve money and money supply, money supply and prices and reserve money and prices. As reserve money largely consists of Government's borrowings from RBI, the causality test on relationship between Government borrowings from RBI and (a) reserve money, (b) money supply, and, (c) prices has also been attempted. Further, as Government's borrowings from RBI consists of RBI's holdings of Government securities and Treasury bills, causality tests between these components and (a) reserve money, and (b) money supply were separately done. The test for the price level and these components was not attempted considering the volume of the components, the lags and the

channel of reserve money and money supply through which it would operate and the complexities of price determination. The second set of causality test has been conducted between Government borrowings from commercial banks and (a) money supply, and (b) prices. Commercial banks holdings of Government securities and Treasury bills have been separately subjected to this test. The third set of causality test was done on Government borrowings from non-bank owners which largely consist of insurance companies and provident funds. In this case also causality test was done between the holdings by these and (a) money supply, and (b) prices. In the case of small savings and provident funds which are considered to mop up purchasing power from the public and hence are deflationary, causality test has been done between these and the prices.

The Granger-Sims method is briefly explained in the chapter followed by our results.

Granger - Sims' Test:

Granger (1) developed a model to test unidirectional causality based on two fundamental axioms- one due to Bacon (2) and the other due to Hume (3). The two axioms are - (1) The past and present may cause the future, but the future cannot cause the past (Bacon), and (2) All causal relationships remain invariant in direction throughout time (Hume).

The concept of causality being defined as - ' An event B(t') (occurring at time t') is a prima facie cause of A(t) iff (i) $t' \leq t$ (ii) $P(B(t')) > 0$ and $P(A(t)/B(t') > P(A(t))$.

The causality test can be explained as follows - If, and only if, causality runs one way from current and past values of

some list of exogenous variables to a given endogenous variable, then in a regression of the endogenous variable on past, current and future values of the exogenous variables, the future values of the exogenous variables should have zero coefficients.

Granger, thus, gave a definition of a testable kind of causal ordering based on the notion that absence of correlation between past values of one variable X and that part of another variable Y which cannot be predicted from Y's own past implies absence of causal influence from X to Y. More precisely, the time-series Y is said to "cause" X relative to the universe U (U is a vector time-series including X and Y as components) if, and only if, predictions of X(t) based on U(s) for all s<t are better than predictions based on all components of U(s) except Y(s) for all s<t.

The mathematical explanation of the Granger's test is given in the Appendix to the chapter which draws largely from the explanation of the methodology summarised by Nachane and Nadkarni. (8)

Granger's ideas form the basis of a number of empirical studies in economics to elucidate many key relationships. There have developed at least four major groups of tests based on Granger's concept of causality.These are Sims' Test (4), Mclave-Hsiao Test (5), Cross-correlation Test (6) and Transfer Function Test (7). We make use of only the Sims' Test.

Sims utilized Granger-causality to test for evidence of unidirectional causality between money and nominal income in the USA for the period 1947-69. The methodology adopted is briefly mentioned here. The mathematical details follow in the Appendix.

Sims' procedure consists of running two bivariate

regressions, first, the regression of Y on current and past values of X, and second, the regression of Y on future, current and past values of X, with the lags - past and future selected suitably. The hypothesis 'Y does not cause X' is rejected if the coefficients of the future values of X are significant as a group. The time series X and Y have to be covariance stationary with the residual terms in the two regressions constituting white noise processes. This can be done by using an appropriate filter.

In this study all data are on yearly basis and all variables used in regression are measured as natural logarithms s of first differences and prefiltered using the Sims's filter viz. $1-1.5L+Ø.5625\ L^2$ i.e. each logged variable x(t) was replaced by $x(t) - 1.5x(t-1) + Ø.5625\ x(t-2)$. Sims mentions that "This filter approximately flattens the spectral density of most economic time series and the hope was that regression residuals would be very nearly white noise with this prefiltering".(9) This filter has been used in many studies.(1Ø) In this study, Sims filter did not pre-whiten M_3 series of money supply but proved useful for all other variables. We have used three sets of lags - two past and two future lags, two past and one future lag and one past and one future lag. Also, the regressions with three set of lags have been run for two sets of periods - 1951-1987 and 1971-87. The period 1971-87 is very short but still was used as the data pertaining to M_1 series of money supply and reserve money for this period are available in official documents whereas data for the period 1951 to 197Ø was not available and was especially computed for the purpose of this study. The results were consistently similar in all the three different sets of lags but

only the most suitable ones are presented here for both the period. Generally, the results for both the periods are similar but where ever they are not, it has been specifically mentioned. Thus, in this study it is assumed that the causal relationship would reveal itself withen two years. In any situation where the causal relationship does not reveal itself in two years then it is assumed here that causality does not exist.

The study attempts to determine causality between the two variables using the rate of change operator. (Δ) The causality has been tested between the two variables in both the directions so as also to determine whether the feedback relationship exists. To measure the absence of serial correlation the Durbin-Watson Statistics (DW) have been used. However Sims observes that after prefiltering the series, DW statistics is of little use in testing for lack of serial correlation **(11)**. In some cases, the value of DW was high and then the Cochrane-Orcutt (C-O) correction method was used. The corrected DW was within limits as desired in all cases but the results continued to be the same as achieved without using the corrective method. We present here the original results (without using the C-O method). The F-Test is applied here for judging the significance of the group of future coefficients **(12)** and the level of significance followed is 1 percent (*) and 5 percent (**) Given the limitations the interpretation of the equations have to be cautiously done. The results obtained are highly indicative and suggestive if not definite.

The causality tests have been done for the following:

I(1) Causality between Reserve Money, Money Supply and the Price level .

The causality test between reserve money (RM), money supply (M_1) and price level (WPI) provides results which are consistent with the theoretical discussion in the previous chapter .

The results for the two periods are given in Table 6.1 and are similar for the two time periods. They can be summarised as follows:

Thus, a) $\Delta RM \rightarrow \Delta M_1$, and

where, '$\rightarrow$' represents causal relationship in the direction of the sign and no causal relationship in the reverse direction.

b) $\Delta M_1 \rightarrow \Delta WPI$

Table 6.1

Reserve Money, Money Supply and Prices

	RM and M_1 1951-87				M_1 and WPI 1951-87				RM and WPI 1951-87			
	RM on	M_1	M_1 on	RM	WPI on	M_1	M_1 on	WPI	WPI on	RM	RM on	WPI
C	0.007	0.016	-0.013	-0.021	0.005	0.003	0.021	0.022	-0.006	0.015	0.010	0.005
-2	-0.264	-0.467	1.444	1.502	0.007	0.049	-0.459	-0.550	0.206	-0.015	-0.006	-0.017
-1	-0.126	-0.459	0.719	1.026	0.256	0.326	-0.713	0.169	1.097	0.523	-0.559	-0.272
0	0.181	-0.232	1.288	1.753	0.147	0.233	-0.835	0.225	0.415	-0.526	-0.580	-0.361
+1		-0.316		0.791		0.068		1.399		-0.935		0.345
+2										-0.425		-0.376
R^{-2}	0.26	0.37	0.25	0.23	0.1	0.1	-0.1	0.1	0.54	0.66	0.24	0.44
DW	3.0	3.0	3.2	3.1	2.8	2.8	3.3	3.3	2.4	3.1	3.0	3.0
F	4.401	5.33	4.22	3.17	2.029	1.527	0.543	1.562	12.339	12.64	3.87	5.53
SSR	0.226	0.184	1.305	1.289	0.226	0.224	1.826	0.155	0.115	0.077	0.236	0.159
F-Test		5.731%		0.341		0.190		4.40%%		5.937%		5.850
	1971-87				1971-87				1971-87			
	RM on	M_1	M_1 on	RM	WPI on	M_1	M_1 on	WPI	WPI on	RM	RM on	WPI
C	0.011	0.025	-0.029	-0.040	0.001	-0.002	0.026	-0.003	-0.016	0.013	0.018	0.013
-2	-0.256	-0.481	1.836	1.895	0.021	0.032	-1.172	-0.946	0.188	0.030	0.085	-0.113
-1	-0.116	-0.491	0.854	1.164	0.195	0.283	-0.744	0.357	1.092	0.515	-0.733	-0.405
0	0.1699	-0.290	1.418	1.879	0.126	0.234	-1.059	0.20	0.564	-0.358	-0.496	-0.353
+1		-0.346		0.379		0.081		1.879		-0.884		0.435
+2										-0.362		-0.558
R^{-2}	0.20	0.36	0.22	0.18	0.12	-0.15	-0.16	-0.14	0.65	0.84	0.12	0.36
DW	3.0	2.9	3.2	3.1	2.8	2.8	3.3	3.3	1.80	3.0	3.0	2.6
F	2.11	2.96	2.29	1.6	1.204	0.897	0.348	0.88	9.70	15.37	1.27	2.58
SSR	0.171	0.124	1.176	1.163	0.118	0.116	1.745	1.413	0.043	0.016	0.201	0.11
F-Test		5.545%		0.112		0.220		12.490%%		7.277%		4.505%%

The results show that (a) change in reserve money causes change in money supply, and (b)change in money supply causes change in the price level. These results are consistent with the theoretical expectations and the results of the studies conducted in the context of India by Nadkarni and Nachane(13) and Ramachandra.(14)

As an increase in reserve money causes an increase in money supply which is seen to cause increase in the price level, it would be interesting to test whether reserve money has direct causal relationship with the price level. Our results show a feedback relationship between reserve money and the price level. Thus,

(c) Δ RM $\leftrightarrow$ Δ WPI, where, '$\leftrightarrow$' represents causal relationship in either direction implying thereby a feed back relationship.

Thus, it would mean that rising prices make the Government to borrow more from RBI and increased borrowings cause an increase in the price level. In other words, it would imply that the rising prices erodes the purchasing power of the Government due to which it has to borrow more from RBI to meet its expenditure requirements. But the more it borrows from RBI to that extent reserve money rises which further leads to a price rise. Thus there emerges, as the results suggest, endogenity in the determination of the money supply.

The result (c) indicates that the change in the price level causes a change in the reserve money whereas result (a) suggests that change in reserve money leads to a change in the

money supply. Hence, change in prices should lead to a change in the money supply. But result (b) suggest that change in money supply leads to a change in price level. This probably can be explained that the changes in money supply are influenced by so many factors that the impact of the change in the price level is not perceptible and hence the non existence of feed-back relationship in this case.

I(2) Causality between RBI's holdings of Government Securities, and Treasury bills, Reserve Money, Money Supply and the Price level.

(a) Reserve Bank's holdings of Government securities and Treasury bills (TRBI), accounting for net RBI credit to Government constitutes a major chunk of reserve money. If reserve money has a causal relationship with money supply then it follows that, probably, Reserve Bank's holdings of Government securities and Treasury bills would also have a causal relationship with money supply. Our results reinforce this belief (Table 6.2) and suggest that

a) Δ TRBI $\rightarrow$ Δ RM, and

b) Δ TRBI $\rightarrow$ Δ M1 .

Thus, change in RBI's holdings of Government securities and Treasury bills not only causes change in reserve money but also accounts for change in the money supply. Regarding the causal relationshp between prices and RBI's holdings of Government securities and Treasury bills, a clear relationship does not emerge. While the results for the period 1951-87 indicate that the rise in prices does cause increase in RBI's

Table 6.2

RBI held Internal Debt, Reserve Money, Money Supply and Prices

	RM and TRBI 1951-87				M_1 and TRBI 1951-87				WPI and TRBI 1951-87			
	RM on TRBI		TRBI on RM		M_1 on TRBI		TRBI on M_1		WPI on TRBI		TRBI on WPI	
C	0.011	0.008	0.006	0.027	0.022	0.023	0.005	0.014	0.004	-0.002	0.033	0.023
-2	-0.285	-0.221	0.838	0.398	-0.701	-0.666	0.434	0.703	0.145	0.058	-1.77	-1.716
-1	-0.103	-0.024	0.101	0.586	-0.174	-0.259	-0.229	-0.26	0.147	0.279	-0.57	-0.113
0	-0.138	0.012	-1.122	-0.737	0.258	0.115	-0.130	-0.127	0.027	0.244	-1.088	-0.544
+1		0.187		-0.364		-0.053		-0.469		0.037		0.722
+2		0.135		-2.015		0.088		-0.129		0.208		-0.023
R^{-2}	0.38	0.36	0.16	0.477	0.32	0.28	0.14	0.59	0.10	0.20	0.25	0.23
DW	2.9	2.9	3.0	3.0	3.6	3.1	3.1	2.95	2.8	2.5	3.0	3.0
F	6.98	4.25	2.699	6.04	5.44	3.14	2.59	9.452	0.51	2.29	4.17	2.69
SSR	0.188	0.180	1.997	1.159	1.19	1.173	2.015	0.882	0.263	1.89	1.76	1.69
F-test		0.572		0.677#		0.182		15.417#		4.698##		0.541
	1971-87				1971-87				1971-87			
	RM on TRBI		TRBI on RM		M_1 on TRBI		TRBI on M_1		WPI on TRBI		TRBI on WPI	
C	0.028	0.014	0.038	0.064	0.063	0.091	0.023	0.035	0.016	-0.017	0.043	0.036
-2	-0.539	-0.465	0.096	-0.507	-1.815	-2.278	0.328	0.540	0.479	0.332	-2.01	-1.947
-1	-0.417	-0.068	-0.386	0.219	-1.220	-1.758	-0.321	-0.473	0.682	0.851	-0.698	-0.435
0	-0.299	0.233	-1.523	-1.052	-0.0231	-0.689	-0.144	-0.291	0.338	0.526	-1.138	-0.815
+1		0.344		-0.455		-1.036		-0.627		-0.161		0.461
+2		0.041		-2.369		0.826		-1.207		-0.346		0.055
R^{-2}	0.46	0.41	0.1	0.65	0.66	0.70	0.10	0.79	-0.16	0.25	0.17	-0.20
DW	2.75	2.8	3.0	2.81	2.77	2.46	3.2	2.41	2.8	2.3	3.0	3.1
F	4.93	2.93	1.166	6.22	10.23	7.428	1.37	11.379	1.908	1.945	1.137	0.59
SSR	0.1152	0.1028	1.482	0.438	0.503	0.372	1.423	2.668	0.125	0.075	1.491	1.474
F-test		0.548		10.721#		0.050		19.501#		3.010		0.051

holdings of Government's paper we find to the contrary that for the period 1971-87 the results do not show any causal relationship.

Thus,

(c) ΔWPI $\longrightarrow$ ΔTRBI 1951-87

but, (d) ΔWPI $\not\leftrightarrow$ ΔTRBI 1971-87

where, '$\not\leftrightarrow$' represents no causal relationship either way.

In contrast to the earlier case where reserve money and

price level exhibited a feed back relationship, here changes in price level causes a change in the holdings of RBI for the period 1951-87 but not vice-versa.

(b) Further, as total RBI credit to Government consists of Treasury bills (TBRBI) and Government securities (CSRBI) it would be logical to study the causal relationship of Treasury bills and Government securities with reserve money and money supply. The results (Table 6.3) can be summarised as follows

(a) $\blacktriangle$ TBRBI $\longrightarrow$ $\triangle$ RM

(b) $\triangle$ TBRBI $\longrightarrow$ $\triangle$ M1

(c) $\triangle$ CSRBI $\longrightarrow$ $\triangle$ RM

(d) $\triangle$ CSRBI $\longleftrightarrow$ $\triangle$ M1

Thus, the results reinforce that change in Treasury bills held by RBI causes (a) change in the reserve money and (b) a change in money supply. Similarly, change in RBI's holdings of Central Government securities causes a change in the reserve money. However, the result 'd' is slightly surprising, as, in 'c' it emerges that change in Central Government securities held by RBI causes a change in reserve money and we have already observed that change in reserve money causes a change in money supply. Probably then, in this case the lags used are too few or else the use of quarterly data would help to formalise a more definite causality between Government securities held by the Reserve Bank and money supply.

Having known the direction of causal relationship between the variables it would be logical to estimate the quantitative magnitudes of parameters by regression equations.

Table 6.3

Treasury Bills and Government Securities held by RBI, Reserve Money and Money Supply.

	TBRBI AND RM 1951-87				TBRBI and M1 1951-87			
	RM ON TBRBI		TBRBI ON RM		M1 on TBRBI		TBRBI on M1	
C	Ø.ØØ7	Ø.ØØ7	Ø.Ø13	-Ø.Ø44	Ø.Ø16	Ø.Ø19	Ø.ØØ5	Ø.Ø12
-2	-Ø.112	-Ø.1Ø9	Ø.859	1.299	-Ø.379	-Ø.4Ø5	Ø.526	Ø.975
-1	Ø.Ø81	Ø.Ø62	-Ø.554	1.749	Ø.1Ø3	-Ø.Ø12	-Ø.557	-Ø.411
Ø	-Ø.ØØ2	-Ø.Ø41	-1.979	1.5Ø7	Ø.339	-Ø.Ø96	-Ø.326	-Ø.Ø94
+1		-Ø.Ø33		2.925		-Ø.236		-Ø.413
+2						-Ø.Ø8Ø		-1.4Ø7
R^{-2}	Ø.37	Ø.35	Ø.18	Ø.37	Ø.32	Ø.28	Ø.2Ø	Ø.6Ø
DW	3.Ø	3.Ø	3.1	3.Ø	3.1	3.12	3.1	3.1
F	6.697	4.88	2.95	5.Ø1	5.59	3.3	3.13	9.26
SSR	Ø.192	Ø.191	3.849	2.864	1.179	1.157	3.788	1.761
F-test		Ø.114		8.596**		Ø.23Ø		13.8Ø8*
	1971 - 87				1971 - 87			
C	Ø.ØØ8	Ø.ØØ1	Ø.Ø65	-Ø.Ø29	Ø.Ø35	Ø.Ø8	Ø.Ø36	Ø.Ø45
-2					-Ø.848	-1.522	Ø.426	Ø.794
-1	Ø.261	Ø.443	-1.Ø8Ø	1.28	-Ø.228	-1.Ø66	-Ø.621	-Ø.638
Ø	Ø.Ø83	Ø.39Ø	-2.576	1.485	Ø.326	- Ø.974	-Ø.318	-Ø.29Ø
+1		Ø.193		3.587		-1.482		-Ø.633
+2						-Ø.976		-Ø.153
R^{-2}	Ø.41	Ø.41	Ø.18	Ø.48	Ø.54	Ø.61	Ø.15	Ø.74
DW	2.8	2.9	3.Ø	2.8	3.Ø	3.Ø9	3.1	2.7
F	5.9	4.27	2.4	5.28	6.38	5.297	1.16	8.76
SSR	Ø.1358	1.248	2.838	1.627	Ø.696	Ø.484	2.76Ø	Ø.677
F-test		Ø.966		8.Ø71*		1.971		13.856*

	CSRBI AND RM 1951-87				CSRBI AND M1 1951-87			
	RM on CSRBI		CSRBI on RM		M1 on CSRBI		CSRBI on M1	
C	-Ø.Ø11	Ø.ØØ7	-Ø.Ø1	Ø.Ø24	Ø.Ø16	Ø.Ø14	-Ø.ØØ1	-Ø.ØØ4
-2	Ø.3Ø1	-Ø.269	Ø.715	Ø.277	-Ø.3Ø2	-Ø.283	Ø.22Ø	Ø.294
-1	-Ø.239	-Ø.151	1.16	Ø.611	-Ø.441	-Ø.4Ø7	Ø.491	Ø.612
Ø	-1.58	-Ø.Ø33	Ø.642	-Ø.4Ø8	-Ø.Ø31	Ø.Ø11	Ø.366	Ø.516
+1		Ø.153		-1.312		Ø.Ø55		Ø.114
+2		Ø.Ø87		-1.264				
R^{-2}	Ø.15	-Ø.1	Ø.Ø5	Ø.19	-Ø.12	-Ø.11	-Ø.Ø5	-Ø.Ø2
DW	3.Ø	3.Ø	2.8	2.7	3.4	3.4	2.9	2.9
F	1.49	Ø.965	1.Ø9	2.Ø8	Ø.58	Ø.44	1.2Ø	Ø.923
SSR	Ø.291	Ø.284	Ø.699	Ø.549	1.818	1.817	Ø.691	Ø.685
F-test		Ø.Ø31		3.4Ø2**		Ø.Ø2Ø		Ø.2ØØ
	1971 - 87				1971 - 87			
C	Ø.ØØ6	Ø.Ø13	-Ø.ØØ9	Ø.Ø46	Ø.Ø25	Ø.Ø2Ø	-Ø.ØØ2	Ø.Ø15
-2	-Ø.Ø41	-Ø.5Ø3	Ø.457	-Ø.Ø82	-Ø.583	-Ø.666	Ø.176	Ø.Ø37
-1	-Ø.131	-Ø.428	Ø.781	-Ø.Ø18	-Ø.869	-Ø.752	Ø.41Ø	Ø.Ø31
Ø	Ø.133	Ø.Ø27	Ø.7Ø8	-Ø.711	Ø.Ø79	Ø.271	Ø.333	-Ø.12Ø
+1		Ø.Ø52		-1.617		Ø.26Ø		-Ø.495
+2		Ø.149		-1.286		Ø.4Ø9		-Ø.36Ø
R^{-2}	-Ø.17	-Ø.12	-Ø.11	-Ø.22	-Ø.12	Ø.33	-Ø.15	-Ø.1Ø
DW	3.1	2.8	2.92	2.9	3.4	3.4	3.1	2.8ØØ
F	Ø.356	Ø.75Ø	Ø.56Ø	1.6ØØ	Ø.55Ø	Ø.311	Ø.99Ø	Ø.83Ø
SSR	Ø.246	Ø.191	Ø.315	Ø.165	1.666	1.629	Ø.291	Ø.248
F-test		1.3ØØ		4.187		Ø.1ØØ		1.ØØØ

The regresion equations estimated on the log values of the variables are as follows (t - values in brackets.) :

(1) 1951-87

$$M_1 = 2.345 + \underset{(4.338)}{0.395}\ TBRBI + \underset{(4.534)}{0.481}\ CSRBI \qquad R^{-2} = 0.987,\ DW = 2.166,\ F = 911.26$$

(2) 1971-87

$$M_1 = 2.751 + \underset{(5.320)}{0.583}\ TBRBI + \underset{(1.982)}{0.234}\ CSRBI \qquad R^{-2} = 0.96,\ DW = 2.322,\ F = 199.83$$

The two regression equations (1) and (2) quantify the relationship between the RBI's holdings of Treasury bills and Government securities with money supply. The coefficient of both the explanatory variables are significant in both the equations. As these equations are in log form, the coefficients of the two variables represent the elasticities respectively. It is revealing that the elasticity of Treasury bills held by RBI during the period 1971-87 is not only higher than the elasticity of Government securities held by RBI but also higher than the elasticity for the period 1951-87. Thus during the period 1971-87, increasing reliance on borrowings from RBI emerges, as Treasury bills are generally held by RBI only. This not only leads to increase in reserve money, money supply and prices but, as has been discused in the previous chapter, Treasury bills being near money assets, are used by the investors for monetisation of debt and hence leads to monetary instability. The causal relationship between Central Government securities and money supply did not emerge in result 'd' above. In the regression equations, the elasticity of these securities to money supply has declined in the period 1971-87 compared to the elasticity in the period 1951-87.

(3) 1951-87

$$RM = 1.113 + \underset{(5.627)}{\text{Ø.688 TBRBI}} + \underset{(2.127)}{\text{Ø.28Ø CSRBI}} \qquad R^{-2} = \text{Ø.966},\ DW = 2.16,\ F = 225.62$$

In equation (3) coefficient of the two variables are significant. Hence variation in reserve money is positively related to the RBI's holdings of Treasury bills and Government securities with the elasticity being high for Treasury bills held by RBI.

(4) 1951-87

$$WPI = 6.497 + \underset{(3.375)}{\text{Ø.34Ø TBRBI}} \qquad R^{-2} = \text{Ø.987},\ DW = 2.149,\ F = 1396$$

In equation (4) the explanatory variable is RBI's total holdings of Treasury bills and Government securities. The explanatory variable is significant and the equation shows a good fit justifying the causality results mentioned earlier that for the period 1951-87, the changes in prices are corelated to RBI's holdings of Government paper.

(II). Causality between Bank credit (Non-RBI) to Government, Money Supply and the Price level.

As analysed in the previous chapter, bank credit (non-RBI) (TB) to Government simply reallocates resources between the Government and the private sector and therefore should not lead to change in money supply and thereby change in the price level. The results (Table 6.4) are summarised as follows and are as expected

a) $\Delta TB \not\leftrightarrow \Delta M1$ and

b) $\Delta TB \not\leftrightarrow \Delta WPI$

The change in bank's credit (non-RBI) does not cause a change in money supply nor a change in the price level. This justifies the policy measure of statutory liquidity ratio imposed by the Reserve Bank on the banks operating in the country. This

Table 6.4

Total Bank Credit to Government, Money Supply and Prices

	MI and TB 1951-87				WPI and TB 1951-87			
	MI on TB		TB on MI		WPI on TB		TB on WPI	
C	Ø.Ø14	Ø.Ø18	Ø.ØØ3	Ø.Ø1	Ø.ØØ9	Ø.ØØ5	Ø.Ø2Ø	Ø.Ø25
-2	-Ø.477	-Ø.531	Ø.271	Ø.27	Ø.ØØ3	Ø.Ø11	-1.262	-1.293
-1	-Ø.34	-Ø.428	Ø.129	-Ø.18	-Ø.Ø8Ø	Ø.ØØ1	-Ø.44Ø	-Ø.684
Ø	-Ø.236	-Ø.363	Ø.135	-Ø.497	-Ø.Ø18	Ø.121	-Ø.179	-Ø.471
+1		-Ø.147		-Ø.522		Ø.12Ø		-Ø.385
+2		-Ø.111		-Ø.753				
R^{-2}	Ø.Ø5	-Ø.16	-Ø.1	-Ø.Ø6	-Ø.19	-Ø.1	Ø.1	Ø.1
DW	3.2	3.2	3.1	3.Ø7	2.5	2.6	3.Ø1	3.1
F	1.3Ø	Ø.8	Ø.35	1.Ø37	Ø.38	Ø.6	1.89	1.44
SSR	1.685	1.677	2.32	1.98	Ø.267	Ø.255	1.98	1.967
F-test		Ø.Ø6Ø		2.Ø3Ø		1.2Ø3		Ø.263
	1971-87				1971-87			
	MI on TB		TB on MI		WPI on TB		TB on WPI	
CCCC	Ø.Ø41	Ø.Ø81	Ø.ØØ5	Ø.Ø26	-.ØØ2	Ø.Ø16	Ø.Ø16	Ø.Ø2
-2	-Ø.978	-Ø.142	Ø.249	Ø.187	Ø.175	-Ø.ØØ2	-1.134	-1.Ø1Ø
-1	-Ø.8Ø1	-1.21Ø	Ø.139	-Ø.314	Ø.Ø58	-Ø.148	-Ø.537	-1.185
Ø	-Ø.66Ø	-1.328	-Ø.131	-Ø.66Ø	Ø.167	-Ø.163	Ø.791	Ø.681
+1		-Ø.643		-Ø.76Ø		-Ø.313		-Ø.765
+2		-Ø.736		-Ø.848		-Ø.288		1.494
R^{-2}	Ø.11	Ø.Ø5	-Ø.21	-Ø.11	Ø.196	Ø.27	Ø.12	Ø.35
DW	3.Ø	2.8	3.1	2.98	2.4	2.4	3.Ø	Ø.289
F	1.48	1.11	Ø.21	Ø.731	2.12	2.Ø19	1.286	2.499
SSR	1.36	1.49	1.49	1.117	Ø.Ø98	Ø.Ø73	1.163	Ø.658
F-test		Ø.678		1.5Ø1		Ø.155		Ø.32Ø

also reinforces the arguments of many economists who suggest that the holdings by the commercial banks of the Government securities and Treasury bills leads to a mere reallocation of financial resources ebtween the Government sector and the private sector. It also repudiates the argument made by some economists that the larger holdings of Government securities and Treasury bills would prompt the banks to operate at a low cash reserve ratio (as they

would now have these assets in their portfolio and they can always seek accomodation from Reserve Bank) and hence lead to increase in credit creation, money supply and price level.

III) Causality between non-Bank Credit to Government, Money Supply and the Price level.

The non-bank held Government securities (CSNB) and Treasury bills (TBNB) (held by institutions like insurance companies, Provident Funds, and other non-bank non-RBI institutions) are not expected to have any impact on money supply and prices. This has been discussed in the previous chapter. Our empirical results(Table 6.5) are as expected and are as follows:

(a) Δ CSNB $\not\leftrightarrow$ ΔM1

(b) Δ CSNB $\not\leftrightarrow$ Δ WPI

(c) Δ TBNB $\not\leftrightarrow$ Δ MI

(d) Δ TBNB $\not\leftrightarrow$ ΔWPI

The results suggest that non-bank held Central Government securities and Treasury bills have no impact on the money supply and the price level. In this case as the Government Securities and Treasury bills are held by institutions like insurance companies, provident funds, etc. these represent indirect transfer of resources from the public to the Government. The amount held by these accounts forms a very low percentage of total internal debt and hence variation in these are not expected to cause changes in the money supply or price level.

Table 6.5

Non-Bank Credit to Government, Money Supply and Prices

	CSNB and M1 1951-87				CSNB and WPI 1951-87			
	CSNB on M1		M1 on CSNB		CSNB on WPI		WPI on CSNB	
C	Ø.ØØ3	Ø.ØØ3	-Ø.Ø18	Ø.ØØ2	Ø.ØØ2	Ø.ØØ4	Ø.ØØ1	Ø.ØØ3
-2	-Ø.1Ø4	-Ø.179	1.86Ø	1.254	-Ø.229	-Ø.24Ø	Ø.5Ø5	Ø.627
-1	-Ø.267	-Ø.337	Ø.989	Ø.145	-Ø.Ø53	-Ø.155	Ø.Ø84	Ø.269
O	Ø.Ø64	-Ø.156	1.266	Ø.226	-Ø.166	-Ø.284	-Ø.2Ø7	-Ø.Ø21
+1		-Ø.Ø2Ø		-1.328		-Ø.158		Ø.3Ø9
+2		Ø.121		-Ø.347		Ø.Ø15		Ø.178
R^{-2}	Ø.18	Ø.27	Ø.18	Ø.18	-Ø.14	-Ø.1Ø	Ø.14	-Ø.1Ø
DW	2.87	2.74	3.1	3.1	2.74	2.7	2.7	2.68
F	3.Ø7	3.22	3.11	2.22	Ø.98	Ø.79	1.22	Ø.8Ø
SSR	Ø.123	Ø.1ØØ	1.426	1.325	Ø.15Ø	Ø.146	Ø.245	Ø.24Ø
F-test		2.8ØØ		1.ØØØ		Ø.33Ø		Ø.25Ø
	1971-87				1971-87			
C	Ø.ØØ9	Ø.Ø15	-Ø.ØØ6	Ø.Ø1Ø	Ø.ØØ3	Ø.ØØ3	-Ø.ØØ2	Ø.ØØ1
-2	-Ø.132	-Ø.244	Ø.471	Ø.4Ø5	-Ø.Ø27	-Ø.Ø3	Ø.324	Ø.253
-1	-Ø.3Ø9	-Ø.462	1.121	-Ø.Ø33	-Ø.3Ø2	-Ø.3Ø9	-Ø.469	-Ø.533
O	Ø.Ø74	-Ø.263	-Ø.Ø13	Ø.3Ø7	-Ø.35	-Ø.369	-Ø.466	-Ø.593
+1		-Ø.169		-1.425		-.372	-Ø.471	-Ø.471
+2		Ø.Ø79		Ø.783		-Ø.Ø28		-Ø.Ø81
R^{-2}	Ø.31	Ø.48	Ø.59	Ø.72	-Ø.Ø5	-Ø.17	Ø.Ø3	-Ø.12
DW	2.56	2.22	2.42	2.52	2.5	2.5	2.5	2.47
F	3.Ø7	3.Ø2	11.43	12.93	Ø.89	Ø.68	1.Ø1	Ø.69
SSR	Ø.Ø63	Ø.Ø38	Ø.667	Ø.567	Ø.Ø94	Ø.Ø94	Ø.122	Ø.122
F-Test		2.91		Ø.339		Ø.Ø1Ø		Ø.Ø3Ø

	M1 and TBNB 1951-87				WPI and TBNB 1951-87			
	M1 on TBNB		TBNB on M1		WPI on TBNB		TBNB on WPI	
C	Ø.ØØ9	Ø.Ø15	Ø.Ø35	Ø.Ø48	Ø.Ø1Ø	Ø.ØØ9	-Ø.ØØ5	Ø.Ø16
-2	Ø.188	Ø.151	Ø.617	Ø.332	Ø.ØØ1	-Ø.ØØ6	1.ØØØ	1.ØØ8
-1	Ø.199	Ø.Ø92	-2.597	-Ø.3Ø6	Ø.ØØ6	-Ø.Ø2Ø	-1.34Ø	-2.652
Ø	Ø.155	Ø.Ø26	-1.129	-1.711	Ø.Ø23	-Ø.ØØ1	2.19Ø	1.Ø8Ø
+1		-1.Ø4Ø		-Ø.445		-Ø.Ø15		-1.67Ø
+2						Ø.Ø14		1.36Ø
R^{-2}	Ø.21	Ø.29	Ø.22	Ø.19	-Ø.11	-Ø.1Ø	-Ø.15	-Ø.11
DW	3.1	3.1	3.1	3.Ø	2.7	2.7	3.1	3.1
F	3.56	3.9Ø	3.68	2.729	Ø.48	Ø.72	1.Ø1	1.ØØ
SSR	1.376	1.195	26.163	26.Ø7	Ø.264	Ø.242	33.9Ø7	38.583
F-Test		1.1Ø6		1.ØØ		1.1Ø6		1.ØØØ
	1971-87				1971-87			
C	Ø.ØØ2	Ø.Ø3Ø	Ø.Ø3Ø	Ø.Ø49	Ø.ØØ3	Ø.ØØ3	Ø.Ø34	Ø.Ø4Ø
-2	Ø.26Ø	Ø.2Ø2	Ø.919	Ø.Ø72	Ø.Ø1Ø	Ø.ØØ6	Ø.765	Ø.988
-1	Ø.275	Ø.13Ø	-2.5Ø	-2.911	Ø.Ø1Ø	Ø.ØØ1	-1.391	-2.2Ø2
Ø	Ø.197	Ø.Ø36	-1.174	-1.67Ø	Ø.Ø17	Ø.Ø14	2.Ø58	2.Ø88
+1		-Ø.124		-Ø.376		Ø.ØØ2		-Ø.867
+2						Ø.Ø12		2.267
R^{-2}	Ø.22	Ø.29	Ø.27	Ø.21	-Ø.22	-Ø.45	-Ø.21	Ø.42
DW	3.1	3.2	3.2	3.1	2.7	2.74	3.Ø	3.1
F	2.31	2.41	2.73	1.89	Ø.13	Ø.13	Ø.2Ø	Ø.17
SSR	1.171	Ø.971	16.645	16.589	Ø.151	Ø.146	27.6Ø6	26.587
F-Test		2.Ø5		Ø.33Ø		Ø.151		Ø.173

(IV). Causality between Small Savings, Provident Funds and the price level.

In the previous chapter, we had discussed that the Government should borrow from individuals, tapping thereby genuine savings which would then help in mopping up the liquidity from the system. The results we have of the causality test between small savings (SSAV) and provident fund (PF) with the price level reinforces the theoretical analysis (Table 6.6) . The results are (a) Δ SSAV $\longrightarrow$ ΔWPI, and

(b) Δ PF $\longrightarrow$ Δ WPI

Table 6.6

Small Savings, Provident Funds and Prices

	WPI and SSAV 1951-87				WPI and PF 1951-87			
	WPI on SSAV		SSAV on WPI		WPI on PF		PF on WPI	
C	-Ø.Ø16	-Ø.Ø22	Ø.Ø11	Ø.ØØ9	Ø.Ø1Ø	Ø.Ø11	Ø.ØØ9	Ø.Ø29
-2	Ø.979	Ø.987	-Ø.Ø92	-Ø.Ø78				
-1	2.Ø78	Ø.187	-Ø.Ø95	Ø.Ø21	-Ø.149	-Ø.175	-Ø.Ø89	-1.Ø35
Ø	-Ø.299	-Ø.111	-Ø.17Ø	-Ø.Ø31	-Ø.Ø57	-Ø.117	Ø.246	-Ø.941
+1		Ø.357		Ø.184		Ø.141		1.683
R^{-2}	Ø.29	Ø.27	Ø.1Ø	Ø.28	Ø.17	Ø.16	-Ø.16	Ø.1Ø
DW	2.8	2.8	2.5	2.87	2.8	2.8	3.Ø	3.Ø
F	4.99	3.77	1.947	3.759	1.9Ø	1.48	Ø.151	1.964
SSR	Ø.177	Ø.175	Ø.ØØØ	Ø.15Ø	Ø.244	Ø.238	2.266	1.868
F-Test		Ø.356		7.696*		Ø.69Ø		5.539*
	1971-87				1971-87			
	WPI on SSAV		SSAV on WPI		WPI on PF		PF on WPI	
C	Ø.Ø4Ø	-Ø.Ø62	Ø.Ø17	-Ø.Ø12	Ø.Ø1Ø	Ø.Ø12	Ø.Ø13	Ø.Ø41
-2	Ø.916	1.217	-Ø.Ø95	-Ø.Ø44				
-1	2.69Ø	2.991	-Ø.132	Ø.Ø41	-2.69Ø	-Ø.284	-Ø.372	-1.311
Ø	-Ø.Ø68	-Ø.367	-Ø.2Ø7	-Ø.Ø28	-Ø.18Ø	-Ø.252	-Ø.345	-Ø.146
+1		Ø.396		Ø.315		-Ø.126		-1.842
+2		Ø.489		Ø.Ø89				
R^{-2}	Ø.54	Ø.48	Ø.1Ø	Ø.44	Ø.16	Ø.15	-Ø.13	Ø.33
DW	3.Ø	3.Ø	2.3	2.9	3.Ø	2.9	3.Ø	3.Ø
F	6.45	3.516	1.184	3.2	2.286	1.813	Ø.21	3.26
SSR	Ø.Ø56	Ø.Ø52	Ø.Ø127	Ø.ØØ6	Ø.113	Ø.1Ø4	Ø.716	Ø.393
F-Test		Ø.69Ø		4.9Ø1*		Ø.9ØØ		4.6ØØ**

The results show that change in small savings and Provident Funds have a causal relationship with a change in the

price level.

The results 'a' and 'b' if further probed show that small savings and provident funds have a negative relationship with the price level. This is borne by the following two regression equations run on the first difference log variables.

1. Period 1951-87:

$$WPI = 3.778 + Ø.1Ø\ T - Ø.Ø79\ SSAVPF \qquad R^{-2} = Ø.993$$
$$(4.998) \quad (-1.258) \qquad DW = 2.Ø7$$
$$F = 1743.67$$

2. Period 1971-87:

$$WPI = 4.991 + Ø.172\ T - Ø.271\ SSAVPF \qquad R^{-2} = Ø.99$$
$$(5.82) \quad (-3.235) \qquad DW = 2.26$$
$$F = 542.683$$

where,'T'is time and SSAVPF is small savings and provident funds clubbed together.

The regression results show that small savings and provident funds have a negative relationship with the price level. The coefficient of SSAVPF is more significant in the second period, 1971-87, compared to the first period, signifying that the small savings and provident funds have played a more prominant role in the second period. This corresponds with the perod of high growth in small savings and provident funds. The 'time' variable, expected to capture all other influences has a significant coefficient in both the time periods for which the regressions have been run. This is because the price level is influenced by a large number of other factors.

Conclusion:

The results obtained in this chapter reinforce our theoretical discussion in the previous chapter regarding the implications of the ownership of total internal debt. The

important results are, firstly, that there exists a causal relationship between Reserve money and money supply and money supply and prices. Thus the Government borrowings from RBI are inflationary as they increase the reserve money which leads to an increase in money supply and further leads to a increase in the price level. Secondly, the change in reserve money leads to a change in the price level and the changing price level causes a change in the reserve money, thus there is a feed back relationship between reserve money and prices. Thirdly, change in RBI's holdings of Government Securities and Treasury bills leads to a change in reserve money and money supply. Fourthly, the results reveal that the change in the price level causes a change in RBI's holdings of Government paper. However, the vice-versa relationship does not emerge. Finally, probing further, it was discovered that Treasury bills held by RBI cause change in reserve money and money supply and the change in the holdings of Central Government securities have a causal relationship with reserve money but does not have any causal relationship with money supply. The regression equations run on the log values of the variables establish a positive relationship between RBI's holdings of Government paper and (a) money supply, (b) reserve money and (c) the price level.

Regarding the holdings of Government securities and Treasury bills by the commercial banks, our results reveal that commercial bank's holdings of Government securities do not have any causal relationship with the money supply or with the price level. Theoretically, though, the implications of Government borrowings from the commercial banks on the money supply is controversial.Some economists are of a view that it could lead

to increase in credit money, money supply and prices but others opine that it merely reallocates financial resources between the Government and private sector.

Government borrowings through Government securities and Treasury bills from non-bank institutions like insurance companies and provident funds also possess no causal relationship with money supply and the price level. However, the holdings of Government paper by these institutions has always been very low and hence not expected to have an impact on money supply and prices.

Small savings and provident funds which mobilises funds from the public at large and helps in mopping up extra purchasing power prevalent in the economy is expected to have a dampening effect on the price level. Our causality test establishes the causal relationship between these and the regressions specify the negative relationship between the price level and the funds mobilised through small savings and provident funds.

Thus, the major results of the causality test are -

1. Change in Reserve Money causes change in Money supply and not vice versa.

2. Change in Money Supply causes change in price level and not vice versa.

3. Change in Reserve Money causes change in price level and change in price level leads to a change in the Reserve Money.

4. Change in Reserve Bank's holdings of Treasury bills and Government securities causes a change in Reserve Money and also a change in Money Supply.

5. Change in Reserve Banks holdings of Treasury bills causes a change in Reserve Money and also a change in the money supply.

6. Change in Reserve Banks holdings of Central Governments securities causes a change in Reserve Money but does not cause a change in Money Supply.

7. Change in the holdings of Government securities and Treasury bills by the commercial banks does not cause a change in the money supply or a change in the price level.

8. Change in the holdings of Government Securities and Treasury bills by the non-bank, non-RBI institutions does not cause a change in the money supply or a change in the price level.

9. Change in the holdings of Total Internal Debt by individuals in the form of small savings causes change in the price level.

10. Change in the holdings of total internal debt by individuals in the form of provident fund causes a change in the price level.

Having known the causality, regressions were run to establish the direction of the relationship. The results are as follows

1. A positive relationship between money supply and RBI's holdings of Government securities and Treasury bills.

2. A positive relationship between reserve money and RBI's holdings of Government securities and Treasury bills.

3. A positive relationship between the price level and the RBI's holdings of Government securities and Treasury bills.

4. A negative relationship between the price level and the holdings of total internal debt by the individuals.

The implications, thus are, that the best source for Government borrowing is small savings and provident funds as they mop up the genuine savings of the public and help in depressing the price level but these may not be available and then the Government would have to resort to other means of borrowings. The second best source would be borrowings from non-bank institutions like insurance companies and provident funds which seem to be neutral to money supply and prices. Though our results do show that Government borrowings from commercial banks

have no causal relationship with money supply and prices,we would be cautious in recommending this mechanism foe raising loans.This is because it has been argued by many economists that the Government borrowings from commercial banks can lead to enhanced credit creation as these banks would now operate at a lowert cash reserve ratio.The hike in credit creation can lead to increase in the money supply.It would need further investigations to finally conclude whether commercial banks credit to Government would or would not have causal relationship with money supply and prices. In addition, Government borrowings from commercial banks does lead to reallocation of financial resources in favour of the Government and thus its expediency would have to be considered accordingly. Borrowings from Reserve Bank leads to increase in reserve money,money supply and prices and hence should be avoided.

Appendix

Granger-Sims Method

The following definition of probabilistic causality provides the starting point of an understanding of the elaborate causality framework built by Granger.

An event B(t') occuring at time (t') is a prima facie cause of A(t) iff (i) t' ≤ t (ii) P(B(t)') > 0 and (iii) P(A(t))/B(t') > P(A(t)). (Suppes)(15)

Granger begins by considering a universe in which all variables are measured at constant time interval t = 1,2...Ω n denotes the Universal information set at t=n, Ω n does not include any variates measured at instants t>n.

After making use of the two fundamental axioms (mentioned in the text) Granger introduces his concept of causality in a series of steps.

To test the probability of a (vector) series Y_t causing another (vector) series X_t, let Jn be an information set consisting of terms of the vector series Z_t, t≤n. Assuring that $X_t \subseteq Z_t$ and $Z_t \cap Y_t = \emptyset$ (null set). Thus

$$J_n: Z_{n-j},\ j \geq 0$$

Further, defining J*n as $J^*_n = Z_{n-j},\ Y_{n-j},\ j \geq 0$

Let $F(X_{n+1}/J_n)$ denote the conditional distribution of X_{n+1}, given J_n.

Granger now gives the following definitions :

1. Y_n is a 'prima facie' cause of X_{n+1} w.r.t. J^*_n if

$$F(Xn+1/J^*_n) \neq F(Xn+1/Jn)$$

The phrase 'prima facie' implies that the relationship depends on the information embodied in J_n. The 'true' or 'real' cause can be defined only with respect to the universal

information set Ω_n, the full contents of which may not be usually known (i.e. $J_n \leq \Omega_n$). Thus follows the following definition -

2. Y_n is a 'cause' of X_{n+1} if $F(X_{n+1}/\Omega_n) \neq F(X_{n+1})/\Omega_n - Y_n)$

To make his definition operational, Granger introduced the concept of 'causality in the mean'. Let E denote the operation of taking expectations and define

$$\delta_{n+1}(J^*_n) = E(X_{n+1}/J^*_n) - E(X_{n+1}/J_n)$$

3. If $\delta_{n+1}(J^*_n) \neq \emptyset$, then Y_n is said to be a' prima facie cause in the mean' of X_{n+1} w.r.t. J^*_n

Granger was concerned with this 'prima facie causality in the mean' and in further discussions it is this concept of causality which is used.

The point forecasts for the expected value of X_{n+1} suggested by Granger are the optimal one-step linear predictors derived on the basis of least squares criterion. Let $\sigma^2(X_{n+1}/J_n)$ be the mean square error of this predictors (given J_n). Then the following operational definition of causality can be formulated

4. 'Y" causes X' if $\sigma^2(X_{n+1}/J^*_n) < \sigma^2(X_{n+1}/J_n)$

Thus Granger -causality is based on incremental predictability 'Y causes X' if knowledge of Y_t ($t \leq n$) increases one's ability to predict X_{n+1}.

Granger also introduces two related concepts - feedback and instantaneous causality.

5. Feedback occurs between X and Y, if both the statements 'X causes Y' and 'Y causes X' are true

6. 'Y causes X instantaneously if

$$\sigma^2(X_{n+1})/J_n, Y_n) < \sigma^2(X_{n+1}/J_n).$$

Thus, Y is an 'instantaneous cause' of X, if knowledge

about the current value of Y enables to make a better forecast of X in the next period.

Sims utilized Granger causality to test the presence of unidirectional causality between prices and National Income in the USA for the period 1947-69. The methodology is as follows -

Let Xt and Yt denote two jointly covariance stationary stochastic processes. The bivariate process (Xt, Yt) can be represented in the autoregression form

$$\begin{bmatrix} \phi_{11}(B) & \phi_{12}(B) \\ \phi_{21}(B) & \phi_{22}(B) \end{bmatrix} \begin{bmatrix} Xt \\ Yt \end{bmatrix} = \begin{bmatrix} \Sigma t^{x} \\ \Sigma t^{y} \end{bmatrix} \text{ ----> (1)}$$

where, B is the one period lag operator and each $\phi ij(B)$ is an infinite polynominal in B. The vector $(\Sigma t^{x}, \Sigma t^{y})$ is a (2 x 1) jointly normal, zero mean, white noise vector processs (a white noise is a serially uncorrelated process).

Now consider the two bivariate regressions

(1) The regression of Yt on current and past values of Xt

$$Yt = \sum_{s=\emptyset}^{\infty} \alpha_{1s} Xt-s + Ut = \alpha_1(B)Xt + U(t) \text{ ------> (2)}$$

and (ii) The regression of Yt on future, current and past values of Xt

$$Yt = \sum_{s=-\infty}^{\infty} \alpha_{2s} Xt-s + Vt = \alpha_2(B)\, Xt + V(t) \text{ ------>(3)}$$

In the two regressions Ut and Vt are serially uncorrelated white noise disturbances whereas $\alpha_1(B)$ and $\alpha_2(B)$ are infinite polynominals in B.

The logical equivalence of the following two statements have been shown by Pierce and Haugh -

i) 'Yt does not Granger - cause Xt'

ii) $\phi_{12}(B) = \emptyset$ in (1) _____(4)

Further Geweke, Meese and Dent **(16)** demonstrated the equivalence of the following two statements-

i) $\phi_{12}(B) = \emptyset$ in (4)

ii) $\alpha_1(B) = \alpha_2(B)$ in (2) and (3)

The two sets of statements together imply that the hypothesis of 'Yt not Granger-causing Xt' can be tested by the relation $\alpha_1(B) = \alpha_2(B)$ i.e. $\alpha_{2s} = \emptyset_1 \quad s<\emptyset$. In applications, $\alpha_1(B)$ and $\alpha_2(B)$ have to be suitably restricted i.e. the number of leads and lags to be considered would have to be decided upon.

Thus, Sims' procedure essentially consists of running two bivariate regressions of the type (2) and (3) and rejecting the hypothesis 'Yt does not cause Xt' if the coefficients of the future values of X are significant as a group.

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1Ø. Barth, J.R. and Bennett, J.T.: 'The Role of Money in the Canadian Economy: An Empirical Test', Canadian Journal of Economics Vol.VII, No.2 May, 1974 and Feige, E.L and Pearce, D.K., 'The Canal Causal Relationship between Money and Income: Some Caveats for Time Series,'The Review of Economics and Statistics, Vol.61,(1979).

11. "If the filter has failed to produce white nosie residuals, it is quite unlikely to fail by leaving substantial positive first-order serial correlation. Durban Watson statistics are therefore of little use in testing for lack of serial correlation". Sims, C.A., op.cit., p.545.

12. Standard 't' tests regarding single β_{ij} coefficients are by for the most commonly examined hypothesis tests in regression analysis. Sometimes, when concerned with more

than one coefficient, then t- tests are inadequate and 'F' tests are used. The results of an F test may seem to contradict those for t- tests on the individual coefficients and the results may be different but generally the differences between the statistical findings of the F-test and t-tests are not really very great.

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Chapter 7

INTEREST PAYMENTS ON TOTAL INTERNAL DEBT

The amount of interest payments on total internal debt assumes great significance as it is an annual charge on the Budget of the Central Government. It, in fact, reflects the financial burden imposed on the Central Budget every year and the so called 'burden of debt' controversy revolves around this amount of interest payments. In this chapter, we attempt to analyse the rising interest payments on total internal debt of the Central Government.

The amount of interest payment on total internal debt and external debt have been compared to know the trend growth in the interest payments. The Central Government advances loans to State Governments and institutions and thus receives interest on these loans. The amount of interest payment has to be adjusted for these interest receipts and the resultant net interest payments have been used to indicate the burden of total internal debt. The amount of net interest payments have been compared with the national income to assess the rise of the burden of interest payments. A comparison is also made with the budget aggregates like revenue receipts and expenditure to estimate the net financial resources required to service total internal debt. The components of interest payments have been considered and the variation in their composition has been discussed. To analyse the effect of the interest payments made, the amount of interest payment has been classified into that part which is paid to the Government and nationalised institutions and

that which is paid to the public.

Finally, a brief discussion follows on the need for rationalisation of interest rate structure pertaining to instruments of Government borrowings, as the interest rates influence the composition of internal debt which has an important implication on the monetary stability in the country.

The amount of interest payment on total internal debt has risen from Rs.63.93 crores in 1950-51 to Rs.10,274.43 crores in 1987-88 - trend growth of 13.52 percent over the period. The interest payments on total debt,inclusive of external debt, however recorded a rise of 14.92 percent over the period, rising from Rs.65.51 crores in 1950-51 to Rs.11,236.00 crores in 1987-88.(Table 7.1,Graph 7.1).The total internal debt over the similar

Table 7.1

Interest Payments on Total Internal Debt and Total Debt

(Rs. Crores)

Year	Interest Payments on			
	Total Internal Debt		Total Debt	
	Current	Real	Current	Real
1950-51	63.93	134.58	65.51	137.92
1960-61	164.20	298.00	188.47	342.00
1970-71	444.48	444.48	605.50	605.50
1980-81	2373.15	922.33	2656.60	1032.49
1981-82	2936.55	1043.92	3194.70	1135.69
1982-83	3633.31	1258.94	3937.60	1364.38
1983-84	4439.66	1404.96	4895.50	1549.21
1984-85	5514.36	1629.54	5974.50	1765.51
1985-86	6974.28	2369.97	7503.50	2097.06
1986-87	8479.98	2250.53	9237.00	2451.43
1987-88	10274.43	2534.39	11236.00	2774.32

Note : Real values refer to current values deflated by the WPI, 1970-71 = 100.

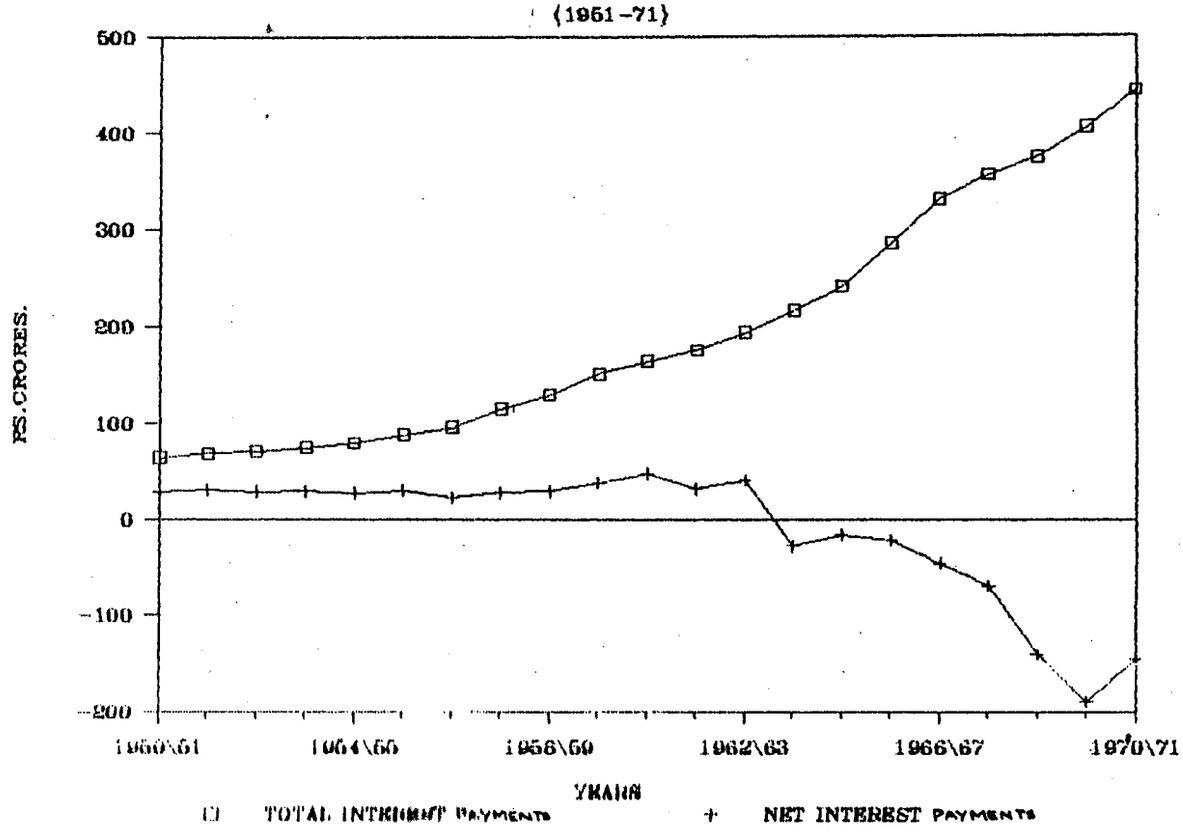
Source: Appendix, Table - 7.

period has increased from Rs.2,872 crore to Rs.1,71,134 crore and

GRAPH-7.1

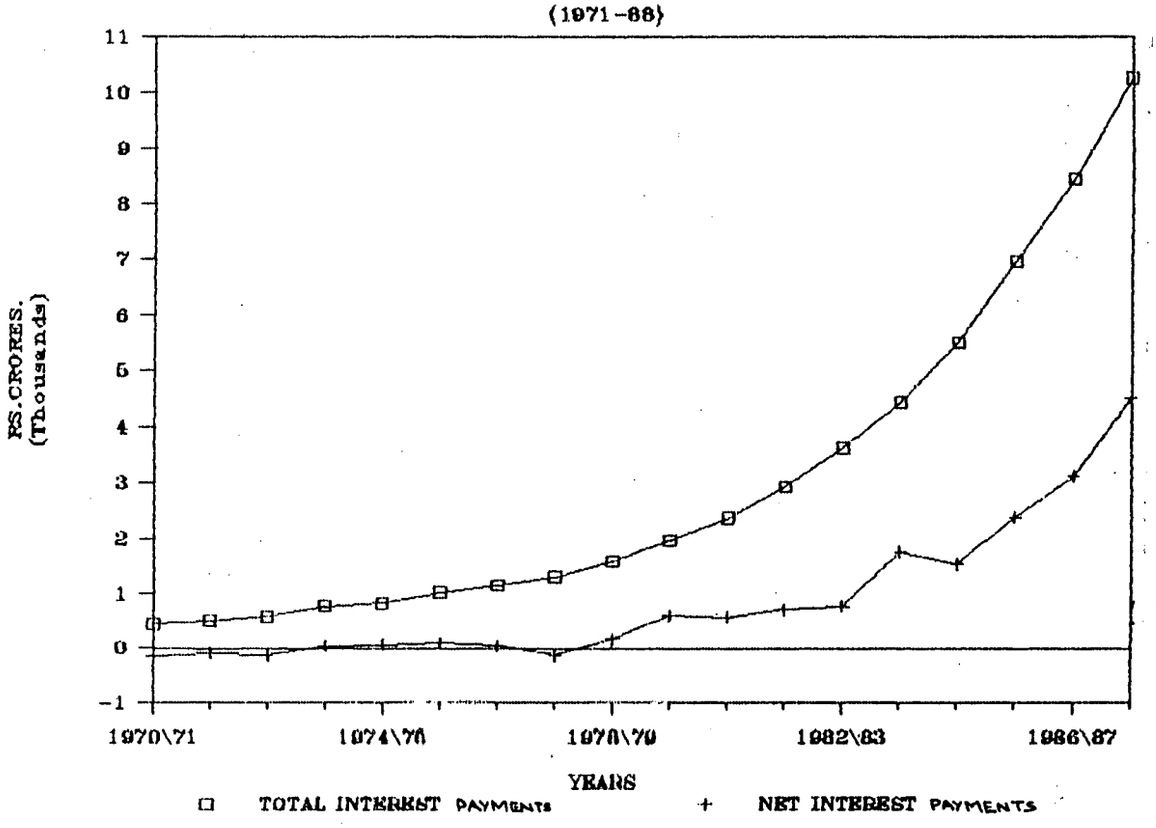
INTEREST PAYMENTS : TOTAL INTERNAL DEBT

(1951-71)



INTEREST PAYMENTS : TOTAL INTERNAL DEBT

(1971-88)



the total debt from Rs.2,925 crores to Rs.1,93,652 crores. The respective trend growth rates being 10.70 per cent and 11.17 per cent. The rise in the growth of interest payments on total internal debt has been increasing with each decade since 1951. The trend growth rate was 9.80 per cent during 1951-61, 10.58 per cent during 1961-71, 16.57 per cent during 1971-81 and 21.11 per cent for the period 1981-88.

The real interest payments on internal debt as well as total debt have also increased tremendously over the period, especially since 1980-81 onwards. In the eight year period, 1980-81 to 1987-88 they have more than doubled with growth rate of 15.53 percent and 15.16 per cent, respectively.

The net interest payment on total internal debt, (net of interest receipts on loans and advances made by the Central Government) is an appropriate measure to estimate the burden of interest payments (1). The net interest payments increased from Rs.28.86 crores in 1950-51 to Rs.4,519.66 crores in 1987-88.(Table 7.2, Graph 7.2). The interest receipts of the Central Government rose at a higher rate than the payments for the period 1951-73 but since then, interest payments have been rising faster. However, since 1978-79, the rise in the net interest payments has perceptibly increased from Rs.175.93 crores to Rs.578.15 crores in 1980-81 and to Rs.4,519.66 crores in 1987-88. The trend growth rate of the net interest payments was 29.69 per cent for the period 1981-88 because of the larger interest payments made by the Centre not matched by equivalently rising interest receipts . It has been pointed out earlier in chapter 3 that since 1977-78 and especially since 1980-81, the net internal

Table 7.2

Net Interest Payments on Total Internal Debt

(Rs. Crores)

Year	Interest Payments on Total Internal Debt	Interest Receipts on Loans and Advances by Central Government	Net Interest Payments on Total Internal Debt
	1	2	3
195Ø-51	63.94	35.Ø8 (54.86)	28.86
196Ø-61	163.73	116.39 (71.Ø9)	47.34
197Ø-71	444.48	588.76(132.4Ø)	-144.28
198Ø-81	2373.15	1795.ØØ (75.63)	578.15
1981-82	2936.55	2215.ØØ (75.43)	721.55
1982-83	3633.31	2852.ØØ (78.5Ø)	781.1Ø
1983-84	4439.66	2668.ØØ (6Ø.Ø9)	1771.66
1984-85	5514.36	3963.ØØ (71.87)	1551.36
1985-86	6974.27	4586.75 (65.77)	2387.52
1986-87	8479.98	5353.Ø2 (63.13)	3126.96
1987-88	1Ø274.43	5754.77 (56.Ø1)	4519.66
Trend Growth Rates			
1951-88	13.5Ø	13.85	
1951-61	9.8Ø	13.43	3.1Ø
1961-71	1Ø.58	17.27	-
1971-81	16.57	11.49	-
1981-88	2Ø.81	17.59	28.32

Note: Figures in brackets are percentage to Col.1
Source: Appendix, Table 7.

debt has been rising. This is being reflected in the higher net interest payments during the period 1981-88.

Interest Payments and National Income

The ratio of interest payments to National Income is an important measure of the burden of debt **(2)**. Table 7.3 indicates trends in this ratio between 1951-87.

Interest payments as a ratio to National Income has been consistently rising and was 3.7Ø percent in 1986-87 compared to Ø.73 percent in 195Ø-61. The trend growth of National Income has

always been lower that of interest payments on internal debt. The trend growth in National Income was 4.16 percent for the decade 1951-61, 10.15 per cent for 1961-71, 11.10 per cent for 1971-81 and 12.02 percent for 1981-87. In sharp contrast, trend growth in interest payments during the similar period were -9.80 percent, 10.58 percent, 16.57 percent and 23.61 percent, respectively. The ratio of net interest payments has also recorded a significant rise over the period. The rising ratio of interest payments to National Income indicates the extent to

Table 7.3

Interest Payments on Total Internal Debt

as a Ratio to National Income*

Year	Interest Payments to National Income	Net Interest Payments to National Income
1950-51	0.73	0.33
1960-61	1.24	0.36
1970-71	1.30	-
1980-81	2.24	0.55
1981-82	2.43	0.60
1982-83	2.72	0.59
1983-84	2.81	1.12
1984-85	3.17	0.89
1985-86	3.56	1.22
1986-87	3.70	1.45

Note: * NNP at factor cost(current prices.)
Source: Appendix, Tables 7 and 15.

which the National Income has to be taxed by the Central Government to enable it to obtain sufficient revenue to meet the annual interest charges assuming that borrowings are not being made to make interest payments. A high and fast rising National Income in relation to the interest payments can enable the Government to raise adequate revenue for meeting the obligation of interest payments without any extra burden to the tax payer. If the interest charges are high in relation to National Income,

the situation reverses (3). Domar observes that if the rate of growth of National Income is larger than the rate of growth of interest payments on debt,then the country would not face any debt problem. This implies that the borrowings are being used for productive purposes whereby the National Income is rising (4).

In the case of India, National Income grew at a trend rate of 9.26 percent for the period 1951-1987 whereas for the similar period interest payments grew at 14.35 percent. Hence, the rising ratio of interest payments to National Income. If India's national income expands more rapidly than the interest payments, this burden of debt would shrink. Wright observes that, ".....even though interest charges and consequent tax fraction are rising absolutely, the relative fraction may be decreasing, if the national income and real income is increasing at a faster rate. Thus, if we have a genuine growth in the taxable capacity of the country, rising interest bill is not a matter of immediate concern. Nor will it be a matter of concern as long as the taxable capacity continues to grow as fast or faster than the taxes."(5). Studensky also warns that, "It is very doubtful whether it is politically feasible for any national government to finance interest charges in excess of 15 per cent of the national income."(6). However, in India the situation is not so grim but the emerging trend does warrent caution.

Interest Payment and Budget Trends

The comparison of interest payments to the revenue receipts of the Central Government also exhibit a rising trend. However, comparison of net interest payments by the Central

Government to the various revenue receipts would be more appropriate.(7) The net interest payments as a ratio to revenue receipts, tax revenue and indirect tax revenue has been rising.The Administrative Reforms Committee remarked in 1967 that "the burden of public debt is not heavy in India. This can also be inferred from the fact that not taking into account the Centre's loans to the states, the revenue receipts of the Centre or of the states, have kept pace with debt repayment obligations" (8). The situation has since changed and now the net interest payments have risen to 11.24 percent of revenue receipts and 19.54 percent of indirect taxes compared to 7.11 percent and 12.46 percent in 1951. In 1978-79 net interets payment were only 1.57 percent of revenue receipts and 2.58 percent of indirect taxes.(Table 7.4).

Though the rise is not much, the trend since 1978-79 is a matter of concern. Prior to 1978-79, net interest payments were not only declining but were negative for many years. Since then and particularly since 1985-86, the rising trend has been a matter of concern. The amount of net interest payments on total internal debt accounted for 9.28 percent of revenue expenditure and 14.35 percent of non-development expenditure in 1987-88 compared to 1.11 percent and 2.39 percent in 1978-79 respectively. The net interest payments since 1978-79 have been rising at a growth rate of 43.42 percent per annum whereas revenue expenditure grew at 18.27 percent per annum and non-development expenditure at 18.59 percent per annum during the period 1979-8Ø. The rise in net interest payments reflects the rising retention of borrowed funds by the Central Government.

Table 7.4

Interest Payments and Central Government Revenues

(%ages)

Year	Net Interest Payments as a percentage to				
	Revenue Receipts	Tax Revenue	Indirect Tax Revenue	Revenue Expenditure	Non-Dev. Expenditure
1950-51	7.11	8.08	12.46	8.31	-
1960-61	5.40	6.48	8.80	5.79	-
1970-71	-	-	-	-	-
1980-81	4.51	6.16	7.73	3.98	6.32
1981-82	4.63	6.23	8.10	4.55	7.04
1982-83	4.32	5.98	7.68	4.04	6.30
1983-84	8.65	11.45	14.43	7.74	11.89
1984-85	6.36	8.77	10.87	5.56	8.81
1985-86	8.18	11.27	14.01	6.86	10.72
1986-87	8.99	12.86	15.88	7.35	11.16
1987-88	11.24	15.95	19.54	9.28	14.35

Notes: In 1970-71, net interest payments are -144.28 crores
Source: Appendix, Tables 7 and 15.

The rising ratio of net interest payments is a cause of concern as it reflects the restriction on the use of financial resources for productive purposes and also the tax effort required to be made to mobilise these funds.

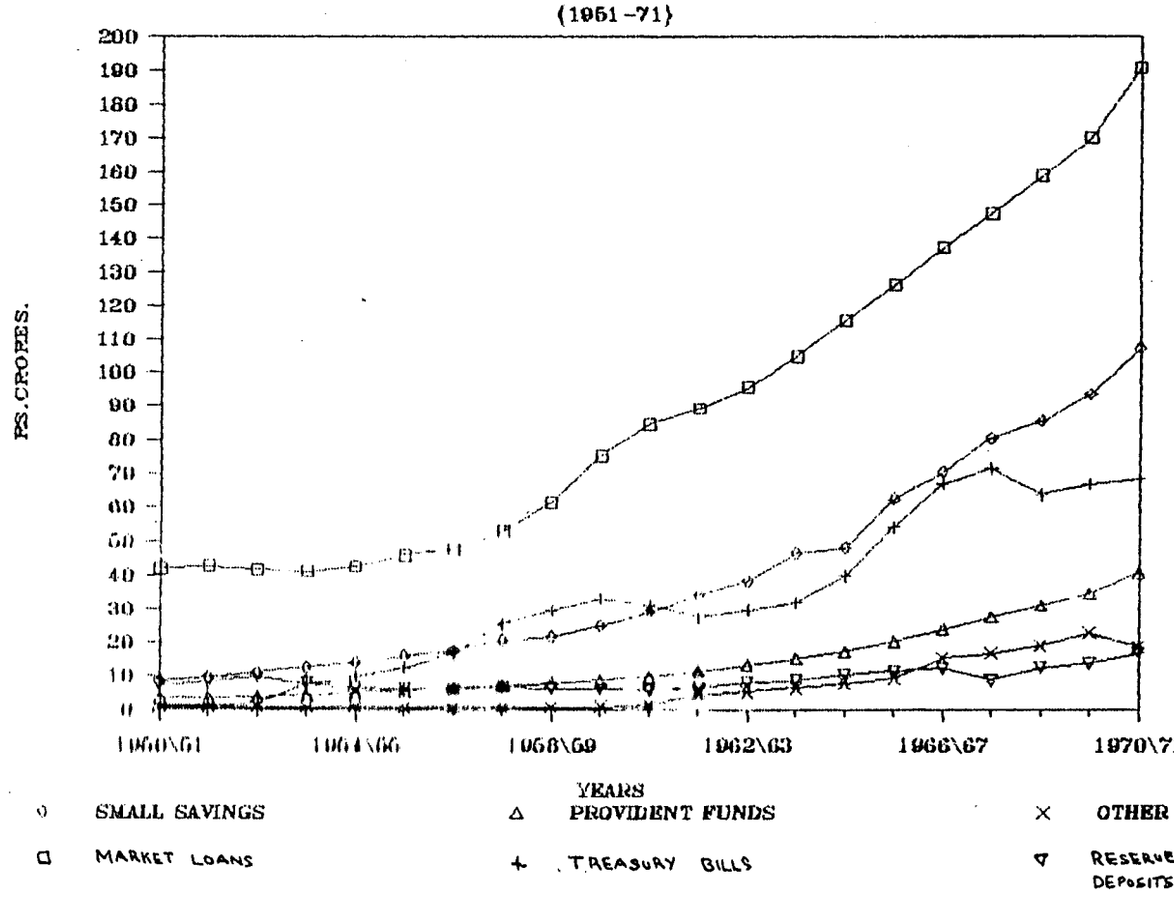
Components of Interest Payment

The escalation in the amount of interest payments is accounted by the rapidly growing debt and rise in the rates of interest. The amount of interest payments made on each component of total internal debt is given in Table 7.5(Graph 7.9).(9).The composition of interest payments has changed since 1950-51. The component-wise brief discussion follows - The share of interest payments on market loans to total interest payments declined from 65.95 percent in 1950-51 to 34.03 per cent in 1980-81 but since

GRAPH - 7.2

COMPONENTS–INTEREST PAYMENTS

(1951-71)



COMPONENTS–INTEREST PAYMENTS

(1971-88)

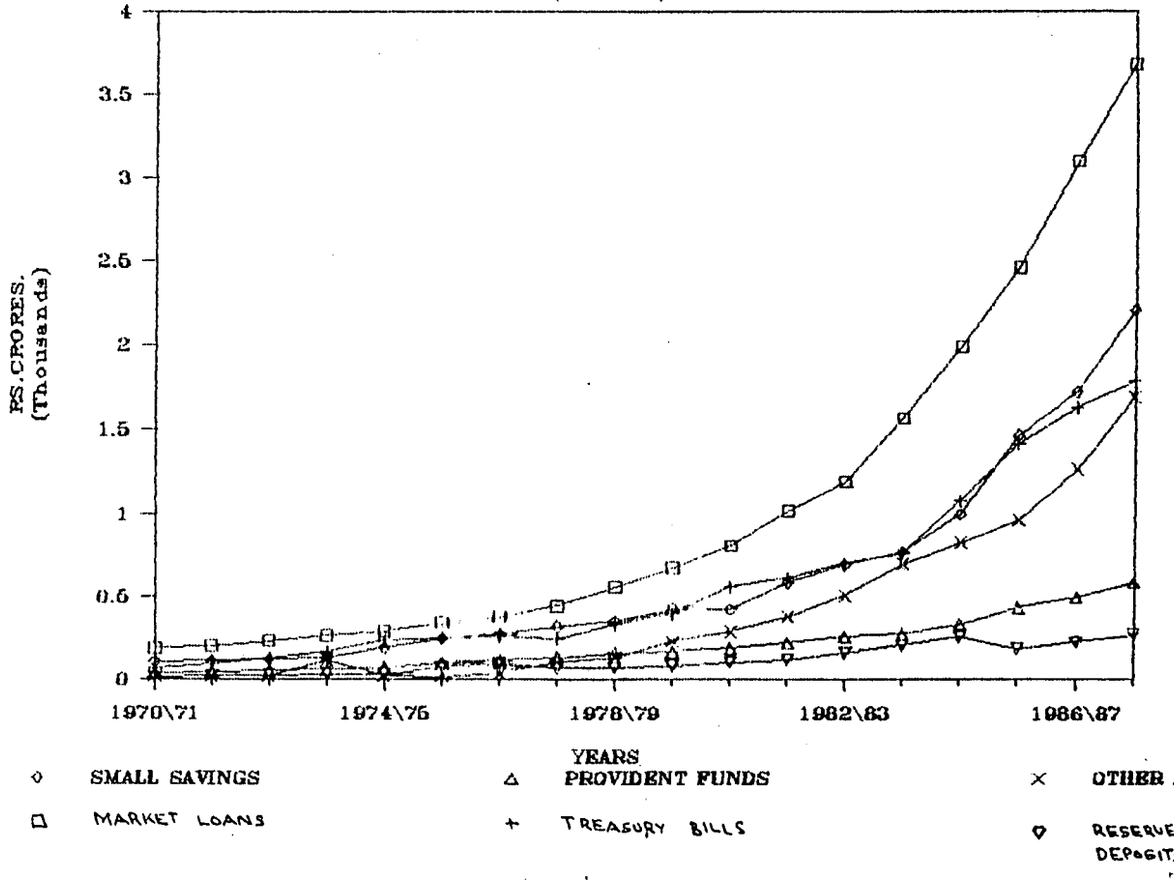


Table 7.5

Interest Payments on Total Internal Debt - Components

Crores.)

Years	Market Loans	Treasury Bills	Small Savings	Provident Fund	Other Accounts	Reserve Funds &	Total
1950-51	42.17(65.95)	1.69(2.64)	8.29(12.97)	3.54(5.54)	0.78(1.22)	7.25(11.34)	63.93
1960-61	84.74(51.76)	31.18(19.04)	28.85(17.62)	9.68(5.91)	1.62(0.99)	5.77(3.52)	164.20
1970-71	190.63(42.89)	68.23(15.35)	107.24(24.13)	40.89(9.20)	18.68(4.20)	16.63(3.74)	444.48
1980-81	807.60(34.03)	557.56(23.49)	422.23(17.79)	188.42(7.94)	290.74(12.25)	102.67(4.33)	2373.15
1981-82	1016.16(34.60)	613.71(17.16)	581.71(18.09)	220.76(7.52)	379.47(12.92)	119.99(4.09)	2936.55
1982-83	1193.63(32.85)	699.38(19.25)	690.11(18.99)	259.76(7.15)	504.94(13.90)	158.45(4.36)	3633.31
1983-84	1567.21(35.30)	761.80(17.16)	767.65(17.29)	274.04(6.17)	691.37(15.57)	207.20(4.67)	4439.66
1984-85	1990.87(36.10)	1080.03(19.59)	966.87(18.08)	332.99(6.04)	822.93(14.92)	260.22(4.72)	5514.36
1985-86	2464.77(35.30)	1423.47(20.41)	1470.77(21.09)	436.60(6.26)	961.76(13.79)	185.89(2.67)	6974.28
1986-87	3098.00(36.53)	1633.27(19.26)	1724.42(20.34)	496.47(5.85)	1268.03(14.95)	228.32(2.07)	8479.98
1987-88	3700.00(35.82)	1730.00(17.39)	2213.00(21.54)	583.19(5.68)	1693.14(16.48)	~~9914.58~~ 271.13(2.64)	10274.43
Trend Growth Rates							
1951-88	11.84	16.44	14.25	14.20	22.38	11.21	13.52
1951-61	6.82	34.03	12.05	10.59	3.51	-3.67	9.88
1961-71	8.18	10.79	13.18	14.38	22.94	8.83	10.59
1971-81	14.42	18.01	15.81	16.48	26.73	18.57	16.80
1981-88	22.14	18.48	23.28	16.33	24.37	12.76	21.11

Source: Appendix,Table 17

then has been stable around 34-36 percent. The trend growth in the interest payments on market loans has been 11.84 percent during the period 1951-88 whereas the market loans outstanding increased by only 9.32 percent over the similar period. This is because the interest rates have been rising over the period.(Table 7.6). In 1951, interest rate on a 13-year loan was 3.ØØ percent per annum but in 198Ø-81 it had a interest rate of 6.75 percent per annum. Similarly, the rate of interest on 7-year market loan has increased from 3.ØØ percent per annum in 1951-52 to 1Ø.2Ø per cent per annum in 1986-87. A 2Ø-year loan in 1959-6Ø had a interest rate of 4 percent per annum whereas in 1987-88 a similar instrument had a interest rate of 11.5Ø per

Table 7.6

Interest Rates on New Market Loans Raised every year

(% age per annum)

Year	Maturity Period			
	Ø-5 Years	5-1Ø Years	1Ø-2Ø Years	Above 2Ø Years
195Ø-51			3	
196Ø-61		3.5	4.ØØ	
197Ø-71		4.54		
198Ø-81	5.75	6-6.5Ø	6.75- 7.ØØ	7.5
1987-88			11.3Ø-11.5Ø	

Source: Appendix, Table 8.

cent per annum. The interest rates on market loans has generally been rising slowly but since 1985, the rise has been large due to the measures adopted to rationalise the interest rate structure in the economy. The rising trend in the interest rates increases the interest burden of the total market loans outstanding. Interest payments on market loans as a ratio to market loans outstanding at the end of the year and market loans raised during the year (Table 7.7) are consistently rising since 1980-81.

Table 7.7

Comparison of Interest Payments on Market Loans raised and Outstanding

Year	Interest Payments on Market Loans as %age to	
	Raised	Outstanding
195Ø-51	138.99	2.93
196Ø-61	46.71	3.31
197Ø-71	37.57	4.42
198Ø-81	28.35	5.2Ø
1987-88	47.Ø7	7.71

Source: Appendix,Tables, 1,3 and 7

Interest payments accounted for 28.35 percent of market loans raised in 1980-81 and 47.Ø7 percent in 1987-88.Similarly, interest payments on market loans as a ratio to loans outstanding rose from 5.2Ø per cent to 7.71 per cent in 1987-88.

In the case of Treasury bills, also, the interest payments have risen from Rs.1.69 crores in 1950-51 to Rs.1,730.00 crores in 1987-88, recording a trend growth of 16.44 percent over the period compared to the trend growth rate of 11.72 percent recorded by the Treasury bills outstanding over the same period. The share of Treasury bills increased from 2.64 percent in 1950-51 to 19.04 in 1960-61, 15.35 per cent in 1970-71 and then 23.09 percent in 1980-81. Since then the share has stabilised around 17-19 percent. The rise in the share of the Treasury bills earlier can be partially attributed to rising rate of interest on the Treasury bills in addition to Government's increasing reliance on RBI for short term borrowings. The discount rate on Treasury bills increased from 3.00 percent in 1970-71 to 4.60 percent in 1974 and since then has been kept at that level. The rise in the share of interest payments in 198-81 was due to the large holdings of Treasury bills by the Government requiring money in the wake of the second oil shock.

The interest payments on small savings have risen from Rs.8.29 crores in 1950-51 to Rs.2,213.08 crores in 1987-88, the trend growth being 14.25 percent for the period compared to the trend growth of 11.2 percent for small savings outstanding. The share of interest payments on small savings to total interest payment on internal debt increased from 12.97 percent in 1950-51 to 24.13 percent on 1970-71 and declined to 17.79 percent in 1980-81. The share then increased from 1983-84 onwards reflecting the introduction of new saving instruments and the rising rate of interest. The rise in the interest payments has been growing with each decade since 1951 and was 23.28 per cent

for the period 1981-88 whereas small savings outstanding rose by 18.88 percent during this period. This is due to the rising rates of interest offered on the savings instruments (Table 7.8) particularly since 1983-84.

Table 7.8
Prevailing Interest Rates on Small Savings
(percentage per annum)

Year	195Ø-51	196Ø-61	197Ø-71	198Ø-81	1986-87
Recurring Deposits			6.25	1Ø.5	11.Ø
Time Deposits 1 Year			5.5	8.5	9.5
2 Year			-	9.5	1Ø.Ø
3 Year			6.25	1Ø.Ø	1Ø.5
5 Year			6.75	1Ø.5	11.ØØ
Cumulative Time Deposits 1Ø Years		3.8	4.75	6.25	6.75
Post Office Savings Bank Certificates	1.5	2.5	4.Ø	5.5	5.5
1Ø Year Certificates	3.5	4.Ø	4.5		11.3
6 Year Certificates				1Ø.25	
7 Year Certificates			7.5	1Ø.75	11.3

Source:Appendix, Table - 9.

The interest rates on provident funds have also been rising. The interest payments on them rose by 14.26 percent whereas the outstanding provident funds rose by an annual average of 11.74 percent from 1951-88. The rate of interest on provident funds has been lower than the other interest rates prevailing in the economy. It increased from 3.75 percent in 1964-65 to 8.ØØ percent in 1983-84. These low rates and a slow rise is reflected in the declining share of interest payment on provident funds to interest payments on total internal debt. In the case of' other accounts', the amount of interest payments has declined during the decade 1951-61 but then has been rising since 1961 with the rise in funds outstanding. Earlier from 196Ø-61 to 1973-74 the rise in funds was due to the deposits of US Government counterpart funds and from 1974-75 it has been due to the

excessive rise in special deposits by provident, gratuity and superannuation funds. The data on interest payments on these specific funds is not available. In the case of interest payments on reserve funds and deposits, it is only the interest bearing reserve funds and deposits which earn interest. These grew by 10.66 percent annually over the period 1951-88 whereas the interest payments on these grew by 13.52 percent annually over the same period.

The growth rate of interest payments on internal debt has been higher than the outstandings of internal debt especially since 1980-81. The ratio of growth rates of interest payments on a instrument to the outstanding amount of the respective instrument would be indicate the relative growth. A ratio higher than '1' would indicate that the growth in interest payments exceeds the growth in the amount outstanding. In Table 7.9, such ratios are presented from 1980-81 onwards. Prior to 1980-81,

Table 7.9
Interst Payments as a Ratio to Debt

Year	Market Loans	Treasury Bills	Internal Debt	Small Savings	Provident Fund	Total Internal Debt
1980-81	0.97	1.08	1.00	0.82	0.98	0.94
1981-82	1.04	1.34	1.02	1.14	0.91	1.06
1982-83	0.96	0.65	0.93	0.98	0.91	0.94
1983-84	1.10	1.18	1.14	0.89	0.85	1.13
1984-85	1.09	1.13	1.06	1.01	0.96	1.06
1985-86	1.06	0.97	1.04	1.16	1.03	1.04
1986-87	1.08	1.48	0.99	1.00	0.39	0.99
1987-88	1.01	0.85	1.02	1.12	1.33	1.05

Source:Appendix,Tables 1 and 5.

there have not been many ratio's with a value consitently above'1' The data reveals that since 1980-81, the interest payments have generally been growing at a higher rate than the respective liability in almost all cases except provident funds.

Thus, it reflects the rising burden of interest payments on the budget.

Impact of Interest Payments according to the holders of Total Internal Debt

To analyse the impact of interest payments on the economy according to the holders of total internal debt a similar classification is followed as in chapter 5. In chapter 5, it was discussed that nearly 63 percent of India's total internal debt was being held by the Government and its nationalised institutions. It would be interesting to analyse the interest payments on Government and its nationalsied institutions held debt and on public held debt.(10) It is not possible to determine interest payments made to each component of the group 'Government and nationalised institutions' due to the non-availability of data. The interest payments on Government and nationalised institutions held debt and public held debt are presented in Table 7.10. The interest payments on Government and nationalised institutions held debt rose by 12.93 percent per annum during 1951-87 whereas the interest payments on public held debt rose by 13.59 percent per year over the period. This implies that the interest payments are relatively higher on instruemnts held by the public. Interest payments on public held debt as a percentage to interest payments on total internal debt fluctuated for the period 1950-51 to 1980-81 but since then seem to be consistently rising. This is because of the rising trend in interest rates on small savings instruments and provident funds since 1980-81. These instruments are generally held by the public. The interest rates on market loans have generally been

stagnant and that on Treasury bills been at 4.60 percent since July 1974.

Table 7.10

Interest Payments on Government, Nationalised Institutions and Public held Debt

(Rs. Crores)

Year	Interest Payments on		
	Government and Nationalised Institutions held Debt	Public held Debt	Total Internal Debt
1950-51	34.25(53.58)	29.68(46.42)	63.93
1960-61	91.29(55.60)	72.91(44.40)	164.20
1970-71	214.86(48.34)	229.62(51.66)	444.48
1980-81	1428.42(60.19)	944.73(39.81)	2373.15
1981-82	1797.08(61.20)	1139.47(38.80)	2936.55
1982-83	2112.10(58.13)	1521.21(41.87)	3633.31
1983-84	2617.40(58.95)	1822.26(41.05)	4439.66
1984-85	3287.03(59.61)	2227.33(40.39)	5514.36
1985-86	4025.89(57.72)	2948.39(42.28)	6974.28
1986-87	4197.26(49.50)	4282.32(50.50)	8479.98

Notes: Figures in brackets are percentages to Total Internal Debt.
Source: Appendix, Tables 5,6 & 7.

In 1986-87, Central Government on its own held about 22.9 percent, Reserve Bank 52.28 percent and the nationalised banks nearly 19.82 percent of the total internal debt held by Government and the nationalised institutions. The amount of interest receipts by each of these major holders can be expected to follow roughly a similar pattern. This has prompted many political economists to wonder aloud that if such large interest payments have to go to the Government, Reserve Bank, banks and other nationalised institutions then should not a dual interest rate policy be pursued. Mody argues, "Dual interest rate policy may be adopted, higher interest rates may be paid only to the holders of public debt other than the Reserve Bank. Thus interest

burden will be much lower_____ ."(11). It needs to be mentioned here that the nationalised institutions plough back their profits to the Government and if the rising amount of interest payments leads to increased profits then these finally reach the national fisc. Secondly, and more importantly, by having a dual rate policy where the rate of interest would be lower for holdings of Government securities not held by public, it may encourage Government to spend in an inconsiderate manner and then seek more borrowings from RBI and nationalised institutions at a cheaper rate. Generally, it is always RBI which has to accomodate the Government and the perusal of the previous chapter reveals that borrowings from RBI have a strong influence on the price level. Thus the dual rate policy may not be expedient.

The interest payments on Government held debt remains within the Government and its various departments and is just another book keeping adjustment.

The interest payments on debt held by public enters the economy directly and its comparison with revenue expenditure, non- development expenditure and indirect tax revenue becomes relevant.The interest payments on public held debt as a ratio to revenue expenditure, declined from 8.53 percent in 1950-51 to 6.51 percent in 1980-81 and since then has been rising. As a ratio to non-developmental expenditure, interest payments have doubled since 1970-71, meaning thereby that growth in interest payments to public have been larger than that of non-developmental expenditure (Table 7.11).In relation to the revenue receipts, the ratio of interest payment has been rising over the

Table 7.11

Comparison of Interest Payments on Public held Debt with Revenue and Expenditure

(Percentages)

Year	Interest Payments on Public held Debt as a Percentage to				
	Revenue Expenditure	Non-Dev. Expenditure	Revenue Receipts	Tax Revenue	Indirect Tax Rev.
1950-51	8.53	-	7.31	8.31	12.81
1960-61	8.83	-	8.31	9.99	13.55
1970-71	7.22	7.87	6.87	9.37	11.68
1980-81	6.50	10.33	7.36	10.06	12.62
1981-82	7.18	11.11	7.32	9.83	12.79
1982-83	7.86	12.27	8.41	11.65	14.96
1983-84	7.96	12.23	8.89	11.77	14.84
1984-85	7.99	12.65	9.14	12.59	15.61
1985-86	8.48	13.25	10.09	13.92	17.31
1986-87	10.07	15.28	12.32	17.61	21.74

Source: Appendix, Tables 7 and 12.

period. This implies that larger amount of revenue is being utilized merely for transfer payments rather than for productive purposes. The high and progressing ratio with indirect taxes is a matter of concern as it is generally beleived that indirect taxes are regressive whereas interest payments to public on internal debt are generally made to the middle and higher sections of the society. This suggests that redistribution of income could be taking place in the economy.

The Redistribution effect of interest payment on internal debt suggested by Ghuge (12) needs to be further probed. Ghuge assumes that individuals holding debt, other than small savings and provident funds are among the richer sections of the society and those holding small savings and provident funds are amongst the poorer. Ghuge however concedes that his so classified rich could also be holding some small savings

instruments and provident funds. This classification may not be completely agreed to, but generally it seems probably right because the individuals holding debt,other than small savings and provident funds,would include shareholders of LIC upto 1957, commercial banks upto 1969, Cooperative Banks, Joint Stock Companies, special bearer bonds, etc. The poor persons,Ghuge refers to, may be considered as middle class groups who invest in small savings and provident funds. (13).

Thus if we assume that the society consists of the rich, middle and poor sections and that the indirect taxes are regressive in nature and falls most heavily on the poor sections of the society then a rough indicative estimate of the redistribution of income can be made. Also, we assume that the poor and the rich segments of the society are not holding small savings and provident funds implying thereby that interest payments on these are received by the middle income group. Thus, if interest payments to middle income group as a ratio to total public held debt shows a rising trend it can be inferred that redistribution of income takes place in favour of the middle income groups. Similarly, if interest payments to the middle income group as a ratio to indirect taxes is declining then it would imply redistribution of income in favour of the poor is taking place and vice-versa. Also, logically, if interest payments to the rich segments of the society as a ratio to indirect taxes declines, then it would imply that redistribution of income in favour of the middle and poor income groups is taking place. Admittedly, this 'test' is suggestive, rather than definitive, but we feel it gives an indication of the nature of changes underway.

Applying this test, our results inferred from Table 7.12 are as follows. The rising secular trend of interest payments to middle income groups reflected in the rising ratio in Col.4 (Table 7.12) shows that redistribution of income in favour of the middle income group is taking place. Similarly, Col.5 (Table 7.12) reflects that the interest payments to middle income group as a ratio to indirect taxes is rising implying thereby that middle income group again is the beneficiary in the redistribution of income. In Col.6 (Table 7.12) the interest

Table 7.12

Interest Payments on Public held Debt

(Rs.Crores.)

Year	Interest Payments on Small Savings and Provident Funds	Interest Payments on Public held debt (net of Col.1)	Total Interest Payments Public held Debt	Col.1 as % of Col.3	Col.1 as % of Indirect Tax Revenue	Col.2 as % of Indirect Tax Revenue
	1	2	3	4	5	6
1950-51	11.83	17.85	29.68	39.85	5.11	7.70
1960-61	38.53	34.38	72.91	52.85	7.16	6.39
1970-71	148.13	81.49	229.62	64.51	7.53	4.14
1980-81	610.63	334.08	944.73	64.64	8.16	4.46
1981-82	802.47	337.00	1139.47	70.42	9.01	3.78
1982-83	949.87	571.34	1521.21	62.44	9.34	5.62
1983-84	1041.69	780.57	1822.26	57.17	8.48	6.36
1984-85	1329.86	897.47	2227.33	59.71	9.32	6.29
1985-86	1907.37	1041.02	2948.39	64.69	11.20	6.11
1986-87	2796.27	1485.73	4282.32	65.30	14.29	7.59

Source:Appendix, Tables 5,6 and 7.

payments to the richer sections of the society as a ratio to indirect taxes exhibited a declining trend from 1950-51 to 1970-71 but have shown a stable trend over the period 1970-71 to 1980-81 and from 1982-83 exhibits a rising trend. This is too short a period to analyse the trend but if similar trend continues it

would imply that redistribution of income is taking place in favour of the rich. As mentioned earlier, Col.4 suggests that redisribution of income is taking place from the rich to the middle income group but as in Col.6 the results imply that the rich are gaining through redistribution, it may be inferred then that the redistribution in favour of the rich is at the expense of the poor in the country.

Recent Trends: Rising Interest Rates

The Government till recently had been following a cheap money policy and were making efforts to borrow at the minimum possible costs, by borrowing at the minimum possible rate of interest. This was firstly, to finance a larger investment plan for the public sector than might have been possible otherwise and secondly, to minimise the cost of servicing the debt. However, due to paucity of funds in the market, interest rates on other instruments continued to rise and hence investment in Government securities became less attractive due to this policy. The pattern of ownership of India's total internal debt shows that institutionalisation of debt is taking place i.e. large portion of such debt is being held by the Reserve Bank, commercial banks, LIC, provident funds, etc. These holdings are mainly because of the statutory requirements particularly the holdings by the Reserve Bank and the other banks. However, as the rate of interest on Government securities has always been very low, non-institutional investors rarely invest in these securities. Excessive dependence on the institutions for domestic borrowing is not desirable as the implications of these have been discussed

in the previous chapters. To mobilize the resources from the general public and to tap genuine savings, the rates of interest have been raised over the last few years especially since 1985 in the process of implementation of the recommendations of the Chakravarty Committee Report.

It should however be noted that the maximum interest rate of 10.50 percent per annum offered during 1984-85 on Government securities with a maturity of as long as 30 years was below the maximum rate offered by banks on term deposits of more than 5 years maturity or yields available on other comparable financial instruments.(14) Table 7.13 provides a glimpse of the

Table 7.13

Interest Rates on Selected Financial Assets

(% age per annum)

	Coupon Rates on Central Government Securities			Commercial Bank Deposits	Company Deposits	National Savings Certificates
	Short term 5 yrs	Medium term 5-10 yrs	Long term 10 yrs & above	Above 5 years	3 years	
1974-75	5.25	5.00	6.25	10.00	9.50-16.00	8.25
1979-80	-	6.25	7.00	10.00	10.50-15.00	10.25
1984-85	7.75	8.50	10.50	11.00	14.00-15.00	12.00
1987-88	-	10.50	11.50	11.00	13.50 -14.00	11.00

Source: Report on Currency and Finance, RBI.

comparative picture. The coupon rates on Government securities are now being raised and interest rates prevailing in the economy on other instruments being scaled down, particularly interest rates on small savings, as a measure to rationalise the interest rate structure in the country. This has resulted in narrowing down the gap between the interest rates offered on Government

Securities and other saving instruments prevailing in the economy.

However, in addition to the interest earnings many of the small savings instruments enjoy immense fiscal concessions. To consider the benefits through fiscal concessions along with the interest rate, we have calculated the effective rate of return on various small savings schemes for the year 1989-90. (Table 7.14). The details of the methodology follows in the Appendix to the chapter.

Table 7.14

Effective Rate of Return on Savings Instruments

Instrument	Actual Rate of interest (percentages)	Effective Rate of Return (Percentages)			
		Marginal rate of Income Tax			
		20%	30%	43.2%	54%
1. National Savings Certificates VI(1)	11	15.4-18.0.	18.1-22.6.	22.9-31.9.	29.8-45.4.
2. " VIII(1)	12	13.9-16.3.	14.7-18.9.	15.7-22.2.	19.1-26.3.
3. Post Office Monthly Income Scheme	12	15.8	17.9	21.8	26.6
4. UTI Monthly Income Scheme*	12	15.2	17.3	21.3	26.2
5. Public Provident Fund (1)	12	15.3	18.2	23.7	30.8
		17.5	22.8	34.4	52.1
6. Bank Fixed Deposits	10	13.0	14.8	18.3	22.6
7. Relief Bonds	9	11.3	12.9	15.9	19.6

Notes: (1) The range refers to the slab rate concession of 100%, 50% and 40% respectively.

* Does not consider the Bonus in 4th year

Source: Appendix, Table - 16.

The effective rate of return on samll savings, provident funds and other popular schemes, were much more attractive than the Government securities. These securities enjoy income tax and

wealth tax concessions and particularly, the National Savings Certificates Series VI-issue even enjoyed the tax concession on the interest income earned.(This series has been discontinued from March 31,1989,as a measure of rationalisation of the interest rate structure in the economy.).

In sharp comparison to the high effective rates of return on these instruments, due to fiscal concessions, the amount of interest earned on Government securities is always taxed. This probably explains the discouraging response of the non-institutional public to the Government securities.In order to make Government securities more attractive, the rates of return on these also would have to be hiked but then this would result in pursuing a dear money policy. The higher rates of interest have been suggested and justified by many economists in the past. Bhargava emphasised, "...It is perhaps necessary to increase the long term interest rate, especially for the non-captive market so that government may be able to check the inflationary pressures that exist in the economy."(15). There is a strong case for increasing the rates of interest on Government loans and for rationalising the spread between the rates on the short and long dated securities from the point of view of making investment in Government securities more attractive.(16). Chakravarty Committee also suggested the rationalisation of interest rate structure in the country with emphasis on aligning the interest rate on Government securities with other rates prevalent in the economy. The Report observes,'An upward revision of yields on Government securities from current levels coupled with a shortening of the maturities can result in attracting funds from the capital market much above what the captive market is able to

provide (17). However, it has to be considered that the interest rates along with fiscal incentives, like on small savings instruments, may be too high for an economy like that of India to sustain. Kothari provides an analysis and suggests that a real rate of interest above 5 percent can be considered to be on a high side and therefore the Government, should be careful in offering high rates of interest, though ofcourse positive real interest should be assured (18). Secondly, and more importantly, knowing that the borrowings are not being used for productive purposes (considering the revenue deficit since 1979-80, slow growth of expenditure on capital formation, etc.) it may not be appropriate to borrow at higher rates. Joshi and Little observe, "If interest rates on Government borrowing rise without an increase in the efficiency of public investment, the public finance problem will get worse (19).

The rise in the interest rates on Government securities may also lead to 'crowding out' of private investment. Joshi and Little observe that during the transition from lower interest rates to higher interest rates. "....the private sector would suffer a powerful 'crowding out' in the credit market with consequent effects on output." (20). Tobin however cautions that, 'Interest rates cannot be taken as constant while the debt grows relative to the economy. Increases in interest rates are the mechanism by which government borrowing squeezes out capital investment." (21). Ghosh critically analyses the issue of rising interest rates particularly the interest rates on small savings and fiscal concessions thereon and argues that "....this may have the effect of 'crowding out' of private investment in the form of

new equity'. (22). This considers the fact that the amount of available financial resources are limited and the high rates of interest only leads to reallocation of investment priorities.

Thus the stress has to be laid on rationalisation of interest rate structure in the economy whereby the interest rates offered on Government securities are attractive enough to be held outside the captive market and the interest rates on other instruments of Government borrowing to be aligned to this and maintained at a sustainable level considering the productivity of investment in the country as well as that no crowding out takes place.

Conclusion

The burden of interest payments has been rising over the period but has not risen so high as to be a cause of alarm. The amount of net interest payments has risen to 1.45 percent of National Income in 1986-87 from Ø.55 percent in 198Ø-81 and Ø.33 percent in 195Ø-51. In comparison to the budgetary variables, net interest payments as a percentage of revenue receipts, tax revenue and indirect tax revenue has been rising consistently since 198Ø-81. This comparison reflects the amount of revenue receipts which are required for servicing the debt. In addition, net interest payments account for 9.28 percent and 14.33 percent of revenue expenditure and non-development expenditure in 1987-88 respectively compared to 3.98 percent and 6.32 percent in 198Ø-81.

The composition of interest payments has changed over the

period with the share of market loans declining but that of Treasury bills, small savings and 'other accounts' rising. The interest payments have been rising at a higher rate than the amount of debt outstanding for all the instruments of public borrowing, especially since 1980-81, implying thereby the hike in the rates of interest of Government borrowing.

The interest payments to Government and nationalised institutions has declined over the period. The interest payments made to the public seem to be causing a redistribution of income in favour of the middle income segment of the society.

The hike in the interest payments to the public is because of the higher rates of interest on instruments held by the public directly. The stagnant rates of interest on market loans have probably been the major cause for these not becoming popular with the public. Though measures have been initiated since 1980-81 and especially since 1985 to rationalise the interest rate structure but still the interest rates on Government securities are not attractive enough to successfully mobilise resources from the public.On the other hand, the interest rates on small saving instruments which are very high raises issues whether borrowing at such high rates is useful and whether such high rates are sustainable.

Appendix

Methodology

In computing the effective rates of return compound rates of interest have been used for instruments where compounding is effective. The fiscal concessions available on the interest income under Sec.10, 80-C and 80-L of the Income-Tax Act, wherever applicable, are taken into account and the effective rates calculated.

The interest income is tax free under Sec.10 andf Sec.80-L of the Income-tax Act. (Section 10 and Section 80-L for the purpose of calculating effective rate are taken here as similar) Therefore the effective rate is calculated using the following formula

$$\tau_e = \tau_a \ (100/(100\text{-MRT})) \text{ -----> } 1.$$

Where, τ_e = Effective rate of return
τ_a = actual rate of interest (wherever applicable compound rate)

MRT = Maximum Marginal Rate of Income-Tax

In the case of Savings Instruments where fiscal concessions are available under Sec.80-C and Sec.10/Sec.80-L of the Income Tax Act, the formula used is as follows:-

$$\tau_e = \tau_a \ [(100/(100\text{-MRT})) \ (100/(100\text{-IT}))] \text{ -----> } 2.$$

Where, IT = Income tax rate applicable according to deductions from income are 110 percent, 50 percent or 40 percent tax.

In the case of Savings instruments where fiscal concessions, are available under Sec.80-C for n-1 years and under Sec.80-L for n years, the formula used is

$$\tau_e = \sqrt[n]{100 \ [\ 1+\tau_{en-1}/100 \ ]^{n-1}} + \tau_{en} \text{ ------> } 3.$$

where τ_{en-1} = effective rate of return for n-1 years only (as calculated in Eq.2)

τ_{en} = the effective amount of interest earned in the nth year (as calculated in eq-1)

The savings instruments which enjoy the fiscal concession under Sec.80-C alone for n-1 years the effective rate of return

has been calculated with the help of following formula-

$$\tau e = \sqrt[n]{100\ (1+\tau ea/100)^{n-1}} + \tau n \quad \text{--------> 4.}$$

where $\tau ea = \tau a\ (\ 100/(100-IT)\ )$

τn = amount of interest earned in nth year

Some of the savings instruments enjoy fiscal concession under Sec.80-C on the initial investment in these instruments. To incorporate this initial fiscal concession and compute the effective rate of return, the formula used is

$$\tau ek = \sqrt[n]{100\ (1+\tau e/100)^{n}} + IC \quad \text{-------->5.}$$

where, τek = effective rate of return with initial fiscal concession

IC = initial amount of fiscal concession.

Notes and References

1. The Central Government gives loans and advances to States, Union Territories, Foreign Governments, and Government servants, Public Sector Enterprises, Railways, Posts and Telegraph, Port Trusts, Municipalities and Statutory bodies, cooperatives and Educational Institutions, etc. and gets interest on such loans.

2. Studensky, P., 'The Limits to Possible Debt Burdens: Federal, State and Local'. The American Economic Review, Vol.XXVII, No.1,(March,1937), p.69.

3. Mishra, D.K., Public Debt and Economic Development in India, (Lucknow, 1985), pp.172-175.

4. Domar, E., 'The 'Burden of the Debt' and the National Income' American Economic Review, Vol. XXXIV, (December, 1944).

5. Wright, D.M., 'The Economic Limit and Economic Burden of an Internally held National Debt'. op.cit., p.121.

6. Studensky. P., op.cit., p.69.

7. The interest receipts on loans and advances made by the Central Government is a revenue item and the burden on the national fix is the net of it.

8. GOI, Administrative Reforms Commission - Study Team-Centre State Relationship, 1967, p.46

9. It may be mentioned here that till 1962-63, the interest bill of the Centre excluded interest charges on capital advanced to commercial department like Railways, Posts and Telegraphs, etc.

10. To arrive at the figures for interest payments on non-governments held debt some adjustments have been made. These adjustments are necessitated to estimate the interest payments made to various types of owners of Total internal debt as the data on this are not available. The adjustments made are as follows. Firstly there are certain components of Total internal debt which are non-interest bearing in character. These are the some of the Reserve Funds and Deposits held by the Government of India. These Reserve Funds and Deposits have been deducted from Government held debt and from the Total Internal Debt. Secondly, the data on interest payments on small savings and provident funds which form a part of non-Government held debt are available. The figures for small savings and provident funds are deducted from thereon the non-Government held debt. Also the interest payments on small savings and provident funds are deducted from the total interest payments made on Total Internal Debt. The adjusted figures of Government held and non-Government held debt are added up and in the ratio proportion of each

the adjusted interest payments is determined. Now in the interest payments for non-Government held debt the interest payments made on small savings and provident funds are added to arrive at the figure of interest payments on non-Government held debt.

11. Mody, R.J., Economic and Political Weekly, Vol. XXI, No.32, Aug 9, 1986, p 1427.

12. Ghuge, V, B., Burdens and Benefits of India's National Debt, (Bombay, 1977), pp.88-90.

13. Ghosh, A., 'India's Public Debt: A Partial Analysis,' Economic and Political Weekly, October 29, 1988, p. 2254.

14. Reserve Bank of India, Report of the Committee to Review the Working of the Monetary System, op.cit., (RBI, Bombay), p.23-25.

15. Bhargava, R.N., 'India's Public Debt Policy' in Indian Public Finance, (New Delhi, 1970), p.35.

16. Burman, K., Public Debt Management in India, (New Delhi, 1986), p.153.

17. Reserve Bank of India: Report of the Committee to Review the working of the Monetary System, op.cit., p.177.

18. 'How much interest can be paid on savings? We can attempt a tentative answer. The incremental capital-output ratio is estimated to be 5.5:1 in the Indian economy. Now if we suppose that nothing goes to labour and enterprise, the maximum that can be paid to capital is 18 per cent. But actually the share of labour in the incremental product may be half or more. That cuts the permissible return on capital to 9 per cent. But if enterprise and management are to be rewarded rather than the passive interest earners, a real rate of interest exceeding 5 per cent should be considered to be on the high side. The government has many investment obligations, the returns on many of which, such as education, social welfare, public infrastructure, are financially non-realisable, though they are justified on cost-benefit basis. The government therefore has to be careful in offering high rates of interest, though of course positive real interest should be assured.', Kothari, V.N., 'Income Tax Concessions, Savings and Interest Rates, Economic and Political Weekly Vol.XXII No.8, Feb.21, 1987, p.336.

19. Joshi, V and Little, I.M.D., Indian Macro-Economic Policies, Economic and Political Weekly, Vol. XXII, No.9, Feb.28, 1987, p. 376.

20. Ibid., p.376.

21. Tobin, J., 'Central Banks and Government Budgets', Reserve Bank of India Bulletin, (Bombay), Jan.1985.

22. Ghosh, A., 'India's Public Debt: A Partial Analysis" op.cit., p.2254.

Chapter 8

SUMMARY AND CONCLUSIONS

The public debt of the country rose to as high as sixty five per cent of GNP during March 1988 compared to 31 percent in 1951, when planning was launched in the country. This ratio is very high compared to other countries like Germany (21.5 percent), U.K. (49.Ø per cent), France (21.5 percent), Japan (25.8 percent), Canada (24.Ø per cent),etc. This study has probed into the problems of rising total internal debt, the largest component of public debt. The total internal debt of the country accounted for more than 88 percent of the total debt outstanding at the end of March 1988 compared to 67 percent at the end of March 1971. Earlier, the total internal debt of the country which was 98 percent of the public debt at end of March 1951 declined to 89 percent at end of March 1961 and further to 67 percent at end of March 1971. The increasing dependence on total internal debt since 197Ø-71 and especially since 198Ø-81 is a matter of concern, not only because this instrument of public finance is being used as a substitute for tax revenue on which interest payments are already substantial, but also because the increasing dependence on financial resources mobilised through borrowings have important macro-economic implications.

The chapter, 'Review of Literature' sets the main issues in theoretical perspective. In this chapter the concept of 'burden of debt', around which revolved the long standing controversy pertaining to debt and shiftability of debt has been discussed in detail. The upshot of the controversy is that the

rising debt ceases to be a cause of national concern if the National Income is simultaneously rising at a higher rate than the rate of interest on the debt. Thus as Domar suggests, it is basically the problem of raising the level of National Income. Secondly, debt not only leaves a burden on the future generations in the form of obligations for interest payments but also creates assets out of the borrowed financial resources. Thus the burden of debt has to be viewed as the net of the benefits and burdens that the debt creates. Apart from the burden of debt, theoretical literature on public debt dwells on the inflationary impact of debt. It is generally conceded that management of debt constitutes an important part of macro policies of the country, especially pertaining to the monetary - fiscal mix. Though this instrument has generally been used as a measure of war finance by the developed countries during the two World Wars, it was considered by economists, particularly the Keynesian economists, as a tool to maintain a high level of aggregate demand in the economy through increased financial resources at the disposal of the monetary and fiscal authorities leading to pump-priming. However, the composition of debt, the maturity pattern and the ownership of debt influences the monetary stability in the country. Though, theoretically, no limits to debt have been prescribed in the literature but invariably the economic situation of the country would impose a limit to the amount of debt raised and outstanding in the country.

In chapter 3, we analyse the dimensions and the rising trend in total internal debt. We also probe into the causes leading to high domestic borrowings. The analysis of the rising trend in the total internal debt of the country reveals that it

has risen from 33 percent of National Income in 1951 to more than 67 percent at the end of March 1988. The rise has been consistent throughout the period but since 1980 the rise has been very sharp. Total internal debt rose from Rs.2,872 crores at the end of March 1951 to Rs.40,252 crores at the end of March 1980 but then rose more than fourfold to Rs.1,71,134 crores at the end of March 1988. The rising trend of debt and the increasing dependence on it is also reflected in the financing pattern of the plans. In the first three years of the Seventh Plan, the dependence on domestic borrowings has been nearly 65 per cent each year. Net total internal debt has also been rising rapidly since 1978 meaning thereby increased retention of borrowed funds by the Central Government (rather than relending to the State Governments) to meet its financial requirements. This high reliance on domestic borrowings is the result of the rise in expenditure unmatched by a similar rise in the revenue to the Government, especially since the early eighties. The expenditure on Revenue Account has risen faster than on Capital Account. The Revenue Account has been in deficit since 1979-80. The expenditure on non-developmental and non-capital formation recorded the largest hike. The expenditure on account of interest payments and subsidies rose at a high rate, both, in absolute and relative terms but the ratio of expenditure on defence declined over the period. Also, the consumption expenditure on the Governments' own account was also very high. Thus to meet the high expenditure domestic borrowings are being used by the Government as a substitute for revenue receipts.

In chapter 4, the trends in the changing composition of total internal debt were analysed. During the period of the

study, domestic borrowings were made through a large number of instruments. The important ones were market loans, Treasury bills, small savings and provident Funds. The share of market loans in the total domestic borrowings declined over the period whereas Treasury bills emerged as the most important instrument. The rising and constant requirements of funds by the Government apart from debt management policy, resulted in large scale conversion of Treasury bills into dated long term securities. The share of small savings in the total internal debt has increased over the years, especially the small savings certificates which enjoy fiscal concessions in addition to the high interest rates. The share of provident funds continues to be less than four percent of total internal debt but the share of superannuation and gratuity funds has increased from Ø.42 per cent at the end of March 1976 to 8.3 percent at the end of March 1988. The share of reserve funds and deposits has declined over the period.

The changing composition of total internal debt is the result of debt management policies pursued by the Government and monetary authority of the country. The debt management policies are expected to cause a shift in the ownership pattern as well as the maturity pattern of debt. The trends and implications of the ownership pattern of debt and that of the maturity pattern were discussed in chapter 5. In debt management ownership pattern is more important than even the magnitude of debt. In India nearly 65 per cent of the total internal debt has been held by the captive market since 195Ø-51. The development of the captive market provides a stable demand for Governments borrowing programme and also assures a smooth implementation of monetary

and fiscal policy of the Government. Also, the share of holdings by the Government and its various nationalised institutions like Reserve Bank, commercial banks, insurance companies, etc. has risen over the period. The implications of debt held by different institutions is different for the monetary situation in the country. The Government securities held by the Reserve Bank results in a higher RBI credit to Government which leads to increase in the reserve money which further leads to increase in the money supply through the money multiplier. The rise in the money supply unmatched by a similar rise in the national output would tend to lead to inflationary pressure in the economy. The holdings of Reserve Bank of India have risen from 23.64 per cent at the end of March 1951 to 33.62 per cent at the end of March 1981 and since then has been around 33 per cent. This does not augur well for the monetary stability in the economy. The holdings of Central Governments securities and Treasury bills by the commercial banks is considered to lead to reallocation of financial resources between the Government and the private sector and thus not to have any influence on many supply and the price level. The monetary tool of statutory liquidity ratio is based on this argument. However, many economists argue that the holdings of Central Government securities and Treasury bills by commercial banks would lead to a increase in money supply and through increased credit creation as banks would operate at a lower cash reserve ratio when these portfolio's would have assets which can be discounted with the central bank of the country. The share of banks held total internal debt has increased from 4.32 per cent in 1950-51 to 5.46 per cent in 1970-71 to 13.05 in 1980-81 and since then remained stable around 11-13 percent over

the period. The portion of total internal debt held by non-bank non-Government sector is expected to be neutral and not influencing the price level as it represents the indirect investment of the public by the financial institution. However, Borrowings from individuals which tap genuine savings of the people is expected to be deflationary as these represent the mopping up of available liquidity in the economy.

The maturity pattern of total internal debt also has monetary implications. The short-term debt instruments are virtually near money assets and they constitute a potentially inflationary method of financing expenditure. In India, Treasury bills represent these near money assets and are generally held by RBI, as all the financial intermediaries prefer to discount these and hold more cash. The study reveals that more than ninety per cent of Treasury bills outstanding are held by RBI, though Treasury bills are bought in large numbers, during the year, by various financial intermediaries. There has been, however, a perceptible shift in the maturity pattern of Government securities outstanding and floated during the year, reflecting the pursuance of deliberate debt management policy towards instruments with longer maturity which could provide monetary stability. The short term market loans (with a maturity of less than 5 years) as a ratio to total market borrowings declined from 22.16 per cent at the end of March 1951 to 9.8 percent at the end of March 1988. The share of long term loans (with maturity of more than 10 years) has increased from 36 per cent to more than 80 per cent during the same period. The lengthening maturity period of the market loans is expected to help establish stability in the system.

In Chapter 6, we empirically tested the monetary implications of the ownership pattern of total internal debt using the Granger-Sims' causality method. The results of the Granger-Sims' test conducted in this study in the context of India for the two time periods, 1951-87 and 1971-87 reaffirm the theoretical conclusions. Our major findings are

1. Change in Reserve Money causes change in Money Supply and not vice versa

2. Change in Money Supply causes change in Price level and not vice versa.

3. Change in Reserve Money causes change in Price level and change in price level leads to a change in the Reserve Money.

4. Change in Reserve Bank's holdings of Treasury bills and Government securities causes a change in Reserve money and also a change in Money Supply.

5. Change in Reserve Bank's holdings of Treasury bills causes a change in Reserve Money and also a change in the money supply.

6. Change in Reserve Bank's holdings of Central Governments securities causes a change in Reserve Money but does not cause a change in Money Supply.

7. Change in the holdings of Government securities and Treasury bills by the commercial banks does not cause a change in the money supply or a change in the price level.

8. Change in the holdings of Government securities and Treasury bills by the non-bank, non-RBI institutions does not cause a change in the money supply or a change in the price level.

9. Change in the holdings of Total Internal debt by individuals in the form of small savings causes change in the price level.

1Ø. Change in the holdings of total internal debt by individuals in the form of provident funds causes a change in the price level.

Having known the causality, regressions were run to estabilish the direction of the relationship. The results are as

follows

1. A positive relationship between money supply and RBI's holdings of Government securities and Treasury bills.

2. A positive relationship between reserve money and RBI's holdings of Government securities and Treasury bills.

3. A positive relationship between the price level and the RBI's holdings of Government securities and Treasury bills.

4. A negative relationship between the price level and the holdings of total internal debt by the individuals.

The Government borrowings from Reserve Bank leads to increase in reserve money, money supply and inflation. Our results also suggest that the rise in prices cause the Government to borrow more from Reserve Bank which further leads to increase in the reserve money, money supply and inflation. The borrowings from commercial banks does not cause this chain leading to the inflationary pressure. Thus it reaffirms our argument that Government borrowing does reallocate resources between the Government and the private sector and does not lead to build inflationary pressure in the economy. The borrowings from non-bank sector, the results reveal, are neutral to inflation. On the other hand, small savings and Provident Funds exhibit a negative relationship with the price level, thereby affirming the view that these instruments successfully mop up the liquidity prevalent in the system. Thus, the logical conclusion follows that Government borrowings should come from the genuine savings of the people and the reliance on Reserve Banks funds should be minimum possible in the interest of monetary stability.

In chapter 7, the discussion on the burden of interest payments and interest rates is presented. The rising debt has a

related cost in the form of interest payments. The indicator of the burden of debt is considered to be the amount of interest payments as it reflects the amount of National Income that would be taxed to service the outstanding debt. It also reflects the amount of additional resources that would have to be mobilised and the amount of financial resources which would simply be transfer payments and would not be made available for productive employment in the economy. The amount of net interest payments (net of interest receipts on loans and advances made by the Government) in the country is rising rapidly, especially since 1980-81. The amount of net interest payment increased from 0.33 percent of national income in 1950-51 to 0.55 per cent in 1980-81 and to 1.45 percent in 1987-88. The net interest payments accounted for more than 9.28 per cent of revenue expenditure of the Central Government in 1987-88. Thus the situation does not appear to be so grim in the immediate future but it does call for immediate attention. The composition of interest payments has been changing since 1950-51 in keeping with the change in the amount of debt outstanding. Interest payments on market loans have declined to 35.8 percent in 1987-88 compared to 65.95 percent in 1950-51. Interest payments on Treasury bills and small savings now account for 21.54 percent and 17.39 percent compared to 12.97 percent and 2.64 per cent respectively in 1950-51.

The interest payments on total internal debt held by the Central Government itself are mere book adjustments and seem not to have any implications but the interest payments to other holders do have implications. The ownership pattern of total internal debt suggests that large amounts of interest payments

were made to the Reserve Bank and commercial banks, profits of which would have been ploughed back to the Government. The analysis of the interest payments made to the public indicate that redistribution of income is likely to be taking place in favour of the middle income group.

The high rate of return (through fiscal concessions), in addition to the high interest rates offered on some small savings instruments by the Government, made investment in Government securities unattractive. To make Government securities attractive and acceptable to investors, outside the captive market, rationalisation of interest rate structure was undertaken in 1985 and interest rates on Government securities were raised. Similarly, considering the high cost of mobilising funds and their utilization, the high interest rates offered on some of the small savings instruments were reduced.

The study thus concludes that the dependence on internal borrowings is at a high rate particularly for the period after 1980. The rise in need for increased dependence on incurring total internal debt was due to the rise in non-developmental non-capital formation expenditure and the unmatching revenue receipts.

The availability of funds from sources which could tap the genuine savings of the people could not meet the increased demand and high requirements of financial resources of the government. This led to increased borrowings from Reserve Bank which further lead to increase in the money supply causing inflationary pressure in the economy. The amount of net interest payments made by the Government were high and accounted for a large amount of revenue receipts. However, they were not as high as to

substantiate the fears expressed that the country is on the verge of internal debt trap.

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APPENDIX

TABLE - 1

INTERNAL DEBT, TOTAL INTERNAL DEBT AND TOTAL DEBT OF GOVERNMENT OF INDIA.

(Rs.Crores.)

YEAR (end of March)	INTERNAL DEBT.	Market Loans. (N.C.	M.C. in course of repayment.	Treasury Bills.	Special Flo'g & Oth.Lns.	Compens-ation & Oth.Bonds.	Special Bearer Bonds.	Special Sec.to RBI.	SMALL SAVINGS SCHEME.	PROVIDENT FUNDS & OTH.A\C'S.	State Prov. Funds.	Public Prov. Fund.	Other Accounts.	RESERVE FUNDS & DEPOSITS.	R.F.& D. Interest Bearing.	R.F.& D. Non-Int. Bearing.	TOTAL INTERNAL DEBT.	EXTERNAL DEBT.	TOTAL DEBT.
	1 (SUM 2 - 8)	2	3	4	5	6	7	8	9	10 (SUM 11-13)	11	12	13	14 (SUM 15+16)	15	16	17	18	19 (SUM 17+18)
1951	2822	1438	7	358	219	0	0	0	337	111	95	0	16	482	261	141	2872	53	2925
1952	1955	1484	8	314	219	0	0	0	373	129	120	0	9	438	246	192	2895	137	3032
1953	1937	1483	7	315	212	0	0	0	413	137	131	0	6	425	216	209	2912	139	3051
1954	1921	1364	10	335	212	0	0	0	451	152	133	0	19	410	199	211	2934	138	3072
1955	2171	1475	11	472	213	0	0	0	509	166	148	0	18	390	182	208	3236	135	3371
1956	2338	1510	12	595	213	0	0	0	576	182	164	0	18	422	189	233	3510	134	3644
1957	2695	1635	11	836	213	0	0	0	638	197	181	0	16	439	191	248	3969	142	4111
1958	3219	1702	14	1295	208	0	0	0	707	218	200	0	18	427	171	256	4571	167	4738
1959	3627	2159	38	1225	205	0	0	0	781	240	223	0	17	418	133	285	5066	357	5423
1960	4030	2441	19	1298	272	0	0	0	867	264	246	0	18	491	137	354	5652	535	6187
1961	3978	2559	23	1106	274	16	0	0	970	551	289	0	262	622	142	480	6121	782	6903
1962	4169	2673	24	1175	278	19	0	0	1059	644	328	0	316	703	162	541	6575	1030	7605
1963	4452	2822	25	1300	281	24	0	0	1131	736	372	0	364	916	182	734	7235	1323	8558
1964	4813	3086	32	1382	285	28	0	0	1258	985	422	0	483	998	233	765	7974	1644	9618
1965	5036	3248	35	1444	287	30	0	0	1386	997	472	0	525	1074	252	822	8493	2129	10622
1966	5419	3421	34	1612	341	11	0	0	1537	1221	527	0	694	959	276	683	9136	2611	11747
1967	6220	3567	33	1920	698	10	0	0	1656	1293	574	0	719	1413	265	1148	10582	4634	15216
1968	6498	3726	46	2009	698	9	0	0	1779	1523	649	0	874	1175	160	1015	10957	5129	16086
1969	6863	3882	44	2244	688	5	0	0	1893	1481	686	1	794	1346	187	1159	11583	5637	17220
1970	7069	4097	43	2232	698	7	0	0	2021	1601	761	2	838	1536	224	1312	12227	6153	18380
1971	7665	4318	46	2516	705	88	0	0	2286	1750	841	4	905	1757	267	1490	13378	6485	19863
1972	8335	4709	49	2765	727	85	0	0	2438	1802	940	7	855	2024	308	1716	14591	6831	21422
1973	10196	5291	53	4044	724	84	0	0	2800	1871	1024	11	836	1949	369	1580	16816	7124	23940
1974	11187	5851	54	4384	731	87	0	0	3275	1319	1115	16	188	2781	440	2261	18402	5869	24271
1975	12378	6417	49	5064	733	187	0	0	3552	1489	1292	21	176	3004	678	2326	20415	6421	26836
1976	13899	6972	49	5818	968	188	0	0	3945	2961	1584	33	524	2757	817	1940	22662	7489	30151
1977	14458	7917	49	5368	1017	187	0	0	4358	3351	1677	45	1629	2838	1038	1800	24997	8611	33608
1978	18996	9282	49	8619	1019	187	0	0	4983	4227	1844	61	2322	3063	1246	1817	31189	8985	40174
1979	19855	10863	58	7608	1235	99	0	0	5758	5086	2079	95	2832	3499	1661	1838	34110	9373	43483
1980	24399	12867	49	10196	1148	147	0	0	6855	5552	2268	134	3150	3446	1612	1834	40252	9964	50216
1981	30865	15549	49	12851	1548	283	88	585	7976	5977	2456	189	3332	3634	1832	1802	48452	10761	59213
1982	35654	18461	49	10273	1536	261	964	4110	9375	7203	2670	254	4279	3627	1985	1722	55859	11790	67649
1983	46939	22232	49	17431	1673	380	964	4218	11098	8789	3068	368	5369	4364	2464	1900	71190	13145	84335
1984	58263	26270	49	15756	2183	471	964	4578	13507	10368	3268	487	6621	6883	4274	1731	88141	15120	95261
1985	58536	30366	27	19452	2554	523	964	4650	17157	12548	3607	552	8389	8563	6198	2365	96884	16637	113441
1986	71048	35241	38	26814	3088	588	964	5187	21449	15410	4001	628	10781	11563	8704	2859	119462	18153	137615
1987	86313	40759	48	19876	4338	467	964	19867	24725	20203	4742	763	14698	15007	9854	5153	146248	20213	166461
* 1988	99528	47759	48	25301	5365	485	964	19677	28025	25203	5392	1013	18878	18386	10978	7328	171134	22518	193652

* Revised Estimates.

SOURCE:1)REPORT ON CURRENCY AND FINANCE,RBI.
2)FINANCE ACCOUNTS,GOVT.OF INDIA.

TABLE - 2

BALANCES OF LOANS ADVANCED BY THE CENTRAL GOVERNMENT AND NET TOTAL INTERNAL DEBT.

(Rs.Crores.)

YEAR (end of March)	Balances of Loans advanced by the Central Government							TOTAL INTERNAL DEBT	NET TOTAL INTERNAL DEBT
	STATE GOVTS. & U.T.	STATE GOVTS.	UNION TERROT.	FOREIGN GOVTS.	GOVT. SERVANTS.	OTHERS.	TOTAL		
	1 (2+3)	2	3	4	5	6	7 (1+4+5+6)	8	9 (8-7)
1951	195.58	195.58	0.00	0.01	0.51	24.58	220.68	2872	2651.32
1952	244.14	244.14	0.00	1.01	0.69	40.10	285.94	2895	2609.06
1953	322.31	322.31	0.00	1.54	0.85	46.61	371.31	2912	2540.69
1954	433.14	433.14	0.00	2.19	0.99	59.85	496.17	2934	2437.83
1955	607.19	607.19	0.00	1.10	1.23	83.89	693.41	3236	2542.59
1956	832.75	832.75	0.00	0.11	4.15	105.88	942.89	3510	2567.11
1957	1036.77	1036.77	0.00	0.11	4.48	155.35	1196.71	3969	2772.29
1958	1252.11	1252.11	0.00	15.26	4.17	185.85	1457.39	4571	3113.61
1959	1483.01	1483.01	0.00	16.33	3.68	329.30	1832.32	5066	3233.68
1960	1676.95	1676.95	0.00	22.68	3.83	458.25	2161.71	5652	3490.29
1961	1909.63	1909.63	0.00	29.17	5.32	590.36	2534.48	6121	3586.52
1962	2219.14	2219.14	0.00	22.75	8.05	671.89	2921.83	6575	3653.17
1963	2594.43	2594.43	0.00	28.40	9.33	767.80	3399.96	7235	3835.04
1964	2995.73	2984.96	10.77	28.47	8.77	880.53	3913.50	7974	4060.50
1965	3458.50	3432.33	26.17	29.96	10.21	1054.37	4553.04	8493	3939.96
1966	4011.10	3970.49	40.61	27.65	11.63	1331.19	5381.57	9136	3754.43
1967	4702.66	4647.40	55.26	33.20	13.94	1797.22	6547.02	10582	4034.98
1968	5249.26	5172.65	76.61	45.95	24.91	2128.97	7449.09	10957	3507.91
1969	5518.60	5409.13	109.47	44.81	23.14	2638.29	8224.84	11583	3358.16
1970	6023.15	5888.78	134.37	47.72	27.35	2679.93	8778.15	12227	3448.85
1971	6398.00	6309.67	88.33	69.08	43.38	2903.32	9413.78	13378	3964.22
1972	6752.24	6703.83	48.41	65.63	74.54	3031.35	9923.76	14591	4667.24
1973	8036.13	7976.18	59.95	93.81	73.45	3330.54	11533.93	16816	5282.07
1974	8643.00	8570.00	73.00	109.00	75.00	3669.00	12496.00	18402	5906.00
1975	9233.00	9144.00	89.00	127.00	69.00	4600.00	14029.00	20415	6386.00
1976	9782.70	9676.70	106.00	110.20	71.60	5730.80	15695.30	22662	6966.70
1977	10602.90	10466.50	136.40	109.30	113.30	7014.70	17920.20	24997	7076.80
1978	11677.70	11498.50	179.20	337.20	123.90	7648.10	19786.90	31189	11402.10
1979	14110.50	13876.30	234.20	251.30	214.50	8797.40	23373.70	34110	10736.30
1980	16029.70	15735.20	294.50	270.60	208.20	10125.10	26633.60	40252	13618.40
1981	17334.60	16980.30	354.30	261.00	200.70	12040.20	29836.50	48452	18615.50
1982	19517.90	19088.30	429.60	364.80	207.10	13810.10	33899.90	55859	21959.10
1983	24115.40	23585.50	529.90	745.00	217.70	14922.00	40000.10	71190	31189.90
1984	27634.00	27003.50	630.50	364.50	238.00	17612.80	45849.30	80141	34291.70
1985	31357.00	30606.40	751.40	381.00	254.10	20299.90	52293.60	96804	44510.40
1986	38719.70	37811.80	907.90	388.70	314.00	22478.90	61902.10	119462	57559.90
1987	43706.34	42634.04	1072.30	733.45	360.99	26274.97	71075.75	146248	75172.25
1 1988	49848.27	48757.95	1090.32	600.25	372.46	29309.06	80130.04	171134	91003.96

1 Revised Estimates.

SOURCE:1)REPORT ON CURRENCY AND FINANCE,RBI.
2)FINANCE ACCOUNTS.GOVT.OF INDIA.

TABLE - 3

NET MARKET LOANS RAISED DURING THE YEAR

YEARS	AMOUNT RAISED		AMOUNT DISCHARGED		NET AMOUNT RAISED	
	(Rs.Cr.)	RATE OF GROWTH(%)	(Rs.Cr.)	RATE OF GROWTH(%)	(Rs.Cr.)	RATE OF GROWTH(%)
1950\51	30.34		41.58		-11.24	
1951\52	50.37	66.02	84.60	103.46	-34.23	204.54
1952\53	0.07	-99.86	0.96	-98.87	-0.89	-97.40
1953\54	75.30	107471	112.30	11597.92	-37.00	4057.30
1954\55	158.68	110.73	46.14	-58.91	112.54	-404.16
1955\56	104.13	-34.38	69.06	49.67	35.07	-68.84
1956\57	158.15	51.88	80.01	15.86	78.14	122.81
1957\58	136.82	-13.49	67.45	-15.70	69.37	-11.22
1958\59	202.56	48.05	21.23	-68.52	181.33	161.40
1959\60	229.62	13.36	116.97	450.97	112.65	-37.88
1960\61	181.40	-21.00	109.38	-6.49	72.02	-36.07
1961\62	203.10	11.96	137.89	26.07	65.21	-9.46
1962\63	285.82	40.73	182.58	32.41	103.24	58.32
1963\64	376.83	31.84	176.27	-3.46	200.56	94.27
1964\65	299.06	-20.64	189.42	7.46	109.64	-45.33
1965\66	284.10	-5.00	155.37	-17.98	128.73	17.41
1966\67	278.70	-1.90	182.34	17.36	96.36	-25.15
1967\68	352.03	26.31	258.18	41.59	93.85	-2.60
1968\69	321.20	-8.76	245.73	-4.82	75.47	-19.58
1969\70	536.68	67.09	396.18	61.19	140.58	86.27
1970\71	507.38	-5.46	284.50	-28.17	222.88	58.54
1971\72	631.50	24.46	333.65	17.28	297.85	33.64
1972\73	778.47	23.27	291.94	-12.50	486.53	63.35
1973\74	1025.31	31.71	561.59	92.36	463.72	-4.69
1974\75	695.74	-32.14	215.22	-61.68	480.52	3.62
1975\76	661.00	-4.99	204.68	-4.90	456.32	-5.04
1976\77	1122.61	69.84	278.10	35.87	844.51	85.07
1977\78	1309.99	16.69	125.54	-54.86	1184.45	40.25
1978\79	1836.80	40.21	183.30	46.01	1653.50	39.60
1979\80	2245.90	22.27	294.40	60.61	1951.50	18.02
1980\81	2848.50	26.83	269.70	-8.39	2578.80	32.14
1981\82	3198.30	12.28	285.40	5.82	2912.90	12.96
1982\83	4136.20	29.32	365.50	28.07	3770.70	29.45
1983\84	4381.70	5.94	343.40	-6.05	4038.30	7.10
1984\85	4583.70	4.61	488.20	42.17	4095.50	1.42
1985\86	5543.30	20.94	658.90	34.97	4884.40	19.26
1986\87	6350.00	14.55	1050.50	59.43	5299.50	8.50
1987\88	7821.00	23.17	820.91	-21.86	7000.09	32.09

SOURCE:1)REPORT ON CURRENCY AND FINANCE,R.B.I.
2)FINANCE ACCOUNTS, GOVT.OF INDIA.

TABLE - 4

MATURITY PATTERN OF GOVERNMENT OF INDIA RUPEE LOANS.

(Rs.Crores.)

YEAR	RUPEE LOANS OUTSTANDING.(end of March)									MARKET LOANS RAISED.(during the year)								
	UNDATED	%age to Total	OVER 10 YEARS	%age to Total	5 - 10 YEARS	%age to Total	>5 YEARS	%age to Total	TOTAL	15 >	%age to Total	10-15	%age to Total	5-10	%age to Total	0-5	%age to Total	TOTAL
1950\51	257.85	17.93	519.33	36.10	342.51	23.81	318.77	22.16	1438.46	0.00	0.00	30.33	96.87	0.81	0.03	0.00	0.00	31.31
1951\52	257.85	18.37	463.47	33.02	450.14	32.07	232.05	16.53	1403.51	0.00	0.00	0.00	0.00	50.36	100.00	0.00	0.00	50.36
1952\53	257.85	18.37	387.60	27.62	411.67	29.33	346.46	24.68	1403.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1953\54	257.85	18.90	271.43	19.90	546.93	40.09	288.06	21.11	1364.27	0.00	0.00	0.00	0.00	75.30	100.00	0.00	0.00	75.30
1954\55	257.85	17.49	241.14	16.36	621.70	42.17	353.70	23.99	1474.39	0.00	0.00	158.10	69.47	0.00	0.00	0.00	0.00	227.57
1955\56	257.85	17.09	241.17	15.99	616.52	40.87	393.13	26.06	1508.67	0.00	0.00	103.68	62.42	0.00	0.00	0.00	0.00	166.10
1956\57	257.85	15.78	245.93	15.05	665.43	40.73	464.50	28.43	1633.61	66.64	32.29	33.82	16.39	57.27	27.75	0.00	0.00	206.40
1957\58	257.85	15.17	259.08	15.24	625.22	36.79	557.35	32.79	1699.50	49.17	36.11	57.00	41.86	30.00	22.03	0.00	0.00	136.17
1958\59	257.85	11.82	606.41	27.80	596.84	27.37	719.87	33.01	2180.97	49.51	19.98	64.34	25.97	87.96	35.50	0.00	0.00	247.76
1959\60	257.85	10.58	707.48	29.02	662.38	27.17	810.53	33.24	2438.24	101.06	33.22	127.91	42.04	0.00	0.00	0.00	0.00	304.23
1960\61	257.85	10.03	690.45	26.85	756.41	29.42	866.62	33.70	2571.33	98.05	43.70	0.00	0.00	82.65	36.83	0.00	0.00	224.40
1961\62	257.84	9.32	806.43	29.16	698.96	25.28	1001.91	36.23	2765.14	65.97	28.55	0.00	0.00	136.53	59.09	0.00	0.00	231.05
1962\63	257.84	8.92	869.67	30.08	711.51	24.61	1052.34	36.40	2891.36	84.03	27.11	80.59	26.00	92.25	29.76	0.00	0.00	309.98
1963\64	257.84	7.77	558.47	16.83	1245.28	37.53	1256.14	37.86	3317.73	53.10	13.11	109.00	26.92	202.94	50.09	0.00	0.00	405.15
1964\65	257.84	7.59	625.94	18.42	1127.71	33.19	1386.03	40.80	3397.42	115.27	35.00	0.00	0.00	178.24	54.24	10.43	3.17	328.59
1965\66	257.84	7.53	765.28	22.34	1015.77	29.66	1386.03	40.47	3424.92	111.15	39.90	156.98	56.35	0.00	0.00	0.00	0.00	278.56
1966\67	257.84	7.25	858.49	24.14	916.35	25.76	1524.00	42.85	3556.76	100.03	34.03	0.00	0.00	167.26	53.93	0.00	0.00	310.12
1967\68	257.84	6.91	1156.82	31.00	749.88	20.09	1567.72	42.00	3732.26	250.35	60.86	0.00	0.00	100.14	24.34	0.00	0.00	411.35
1968\69	257.84	6.64	1360.75	35.04	368.40	10.00	1876.38	48.32	3883.37	178.56	48.38	0.00	0.00	142.12	38.51	0.00	0.00	369.06
1969\70	257.84	6.29	1569.70	38.32	598.79	14.62	1670.26	40.77	4096.59	275.19	47.24	0.00	0.00	260.15	44.66	0.00	0.00	582.58
1970\71	257.83	5.88	1886.81	43.01	635.17	14.49	1605.92	36.62	4384.93	372.23	74.15	0.00	0.00	55.64	11.09	0.00	0.00	502.02
1971\72	257.83	5.39	2309.45	48.27	668.49	13.97	1548.76	32.37	4784.53	434.12	62.22	59.93	8.59	132.86	19.04	0.00	0.00	697.72
1972\73	257.83	4.81	2871.57	53.54	855.76	15.96	1377.79	25.69	5362.95	348.21	42.92	283.89	34.99	181.37	12.49	0.00	0.00	811.37
1973\74	257.83	4.34	3388.05	56.96	1339.60	22.57	957.05	16.13	5934.53	338.43	30.86	443.86	40.47	243.14	22.17	47.33	4.32	1096.76
1974\75	257.83	3.96	3731.01	57.25	1435.89	22.03	1092.29	16.76	6517.02	237.47	34.10	324.82	46.64	86.83	12.47	0.00	0.00	696.45
1975\76	257.83	3.63	4083.58	57.48	1601.78	22.55	1160.87	16.34	7104.06	570.16	77.28	0.00	0.00	98.39	12.25	0.00	0.00	737.83
1976\77	257.83	3.20	4958.20	61.44	1671.96	20.75	1177.16	14.61	8057.15	1082.56	89.25	0.00	0.00	41.19	3.40	0.00	0.00	1213.00
1977\78	257.83	2.76	6077.85	65.07	1591.28	17.04	1413.44	15.13	9340.32	1271.30	96.83	0.00	0.00	40.69	3.10	0.00	0.00	1312.96
1978\79	257.83	2.35	7465.94	67.91	1693.59	15.40	1576.85	14.34	10994.21	1549.76	84.51	288.98	11.40	75.00	4.09	0.00	0.00	1833.74
1979\80	257.83	2.00	9049.47	70.04	1851.83	14.33	1761.92	13.64	12921.05	1692.67	74.91	281.53	8.92	364.61	16.14	0.00	0.00	2259.65
1980\81	257.83	1.65	10960.42	69.97	2582.65	16.49	1864.34	11.90	15665.24	1712.70	59.64	466.64	16.25	691.48	24.08	320.30	11.15	2871.58
1981\82	257.83	1.39	12818.19	68.95	3052.86	16.43	2458.08	13.23	18578.96	1982.29	59.61	398.22	12.23	578.34	18.12	233.36	7.31	3191.15
1982\83	257.83	1.15	15881.28	71.03	3075.54	13.76	3144.37	14.06	22359.02	3228.03	77.49	559.92	13.44	144.46	3.47	0.00	0.00	4165.67
1983\84	257.83	0.98	19112.78	72.45	3736.36	14.16	3281.77	12.44	26388.74	2789.74	67.55	598.72	14.50	740.75	17.94	0.00	0.00	4130.03
1984\85	257.83	0.85	22270.18	73.02	4543.66	14.90	3425.32	11.23	30496.99	3831.32	83.44	119.85	2.59	640.71	13.95	0.00	0.00	4591.94
1985\86	258.72	0.71	25983.66	73.60	5468.87	15.49	3600.87	10.20	35304.34	5005.52	86.83	115.31	2.00	643.29	11.16	0.00	0.00	5765.01
1986\87	0.00	0.00	30905.31	77.16	4792.62	11.97	4355.00	10.87	40052.93	5799.05	91.30	178.53	2.81	372.86	5.87	0.00	0.00	6351.38
1987\88	0.00	0.00	38454.38	80.40	4691.12	9.81	4684.93	9.79	47830.43	7107.70	90.88	389.77	3.96	403.79	5.16	0.00	0.00	7821.35

SOURCE:REPORT ON CURRENCY AND FINANCE, R. B. I.

TABLE - 5

PATTERN OF OWNERSHIP OF CENTRAL GOVERNMENT SECURITIES.

(Rs.Crores.)

YEAR. (end of March)	CENTRAL GOVT.	STATE GOVT.	RESERVE BANK OF INDIA. (Own A\C)	LIFE INS. CORP.	GENERAL INS. CORP.	EMPLOYEES ST. INS. CORP.	PROVIDENT FUNDS.	I.F.S. F.C.	RESERVE BANK OF INDIA. (Oth A\C)	COMMERCIAL BANKS			CO-OP. BANKS.	TOTAL OF BANKS.	LOCAL AUTHORI--TIES.	NON-RESIDENTS.	TRUSTS. PUBLIC & PRIVATE.	INDIV--IUALS.	OTHERS.$	TOTAL.
										SCHEDULE.	NON-SCHEDULE.									
	1	2	3	4	5	6	7	8	9|0	11	12	13	14 (11+12+13)	15	16	17	18	19	20
1951	62.87	55.94	339.93	112.74|	0.00	0.00	0.00	0.00	63.60	0.00	0.00	0.00	356.99	22.10	59.96	0.00	0.00	364.33	1438.46
1952	43.15	39.13	340.75	121.68|	0.00	0.00	0.00	0.00	82.27	0.00	0.00	0.00	385.04	20.31	55.18	0.00	0.00	396.88	1403.51
1953	43.86	41.83	315.65	122.47|	0.00	0.00	0.00	0.00	68.32	0.00	0.00	0.00	337.83	24.85	51.87	0.00	0.00	397.70	1403.58
1954	29.60	59.15	286.43	127.95|	0.00	0.00	0.00	0.00	75.78	0.00	0.00	0.00	347.86	21.46	48.36	0.00	0.00	367.68	1364.27
1955	31.93	71.18	287.78	134.38|	0.00	0.00	0.00	0.00	88.83	0.00	0.00	0.00	374.50	21.69	42.56	0.00	0.00	421.78	1474.39
1956	54.95	85.52	268.85	137.29|	0.00	0.00	0.00	0.00	99.65	0.00	0.00	0.00	360.58	25.75	48.89	0.00	0.00	415.19	1508.67
1957	7.44	182.24	318.78	201.26	9.11	13.09	109.50	1.38	23.00	380.56	6.27	10.05	396.90	0.00	33.43	0.00	0.00	411.45	1699.58
1958	7.39	196.67	305.90	217.06	8.97	14.10	133.00	0.93	26.30	510.43	5.14	11.77	527.30	57.99	31.90	80.00	39.00	234.21	1880.96
1959	7.35	195.15	313.30	221.40	8.80	14.50	141.10	0.73	32.30	483.49	5.14	10.66	507.30	42.85	33.79	142.01	67.94	152.40	1881.00
1960	5.29	215.90	466.90	233.82	9.40	15.30	172.70	0.30	32.10	562.30	5.67	17.85	585.80	48.54	34.44	160.41	61.80	96.53	2138.23
1961	3.51	213.00	704.90	243.90	8.20	15.10	217.00	0.50	29.70	427.60	4.60	17.10	449.30	56.50	34.23	158.34	57.20	64.32	2255.70
1962	2.00	209.30	842.00	252.90	7.80	14.50	259.90	0.50	29.80	484.20	3.50	15.40	423.10	34.80	30.50	80.30	53.00	129.00	2369.40
1963	2.00	206.00	945.70	266.40	8.60	13.60	310.50	0.50	27.20	410.50	3.30	16.00	429.80	29.90	26.30	51.40	47.80	152.00	2518.50
1964	1.50	221.90	1055.90	292.50	8.00	12.70	370.10	0.40	28.90	489.90	3.10	16.60	509.60	15.90	26.20	81.90	46.40	115.10	2787.00
1965	1.00	224.50	1095.30	307.20	8.10	10.90	443.40	0.20	29.30	557.40	2.50	15.00	574.90	22.40	0.00	45.20	38.20	137.60	2938.20
1966	0.00	216.80	1213.70	320.40	7.70	9.10	529.70	0.20	29.10	579.10	1.60	15.30	596.00	25.30	0.00	44.40	33.40	89.10	3115.70
1967	1.20	187.30	1258.10	343.80	7.40	8.40	634.50	0.20	28.50	627.10	1.40	13.60	642.10	21.50	0.00	44.50	28.60	41.40	3247.50
1968	1.10	175.00	1324.20	370.40	7.00	7.00	718.90	0.20	24.50	671.30	1.30	13.10	685.70	18.90	0.00	42.30	26.80	14.50	3416.50
1969	1.00	156.50	1339.00	396.70	6.50	7.00	799.00	0.10	24.30	729.50	0.90	13.00	744.20	18.70	0.00	44.00	26.30	9.00	3573.10
1970	0.90	141.70	1457.00	431.70	7.00	7.00	879.90	3.50	34.10	781.20	0.70	13.70	795.60	11.10	0.00	53.30	23.50		3789.60
1971	0.00	140.70	1485.70	465.20	0.00	0.00	0.00	0.00	0.00	862.00	0.60	13.50	876.30	11.00	0.00	51.00	0.00	1028.10	4078.00
1972	0.00	139.00	1557.20	544.20	0.00	0.00	0.00	0.00	0.00	1085.10	0.30	0.00	1085.40	0.00	0.00	0.00	0.00	1146.50	4473.10
1973	0.00	146.70	1653.40	619.00	0.00	0.00	0.00	0.00	0.00	1439.60	0.30	0.00	1439.90	0.00	0.00	0.00	0.00	1192.50	5051.50
1974	0.50	163.00	2283.60	680.40	39.30	3.00	1202.50	0.00	10.00	1567.90	0.50	23.70	1592.10	4.10	0.00	33.20	17.20		5923.10
1975	0.00	173.20	2358.10	790.10	0.00	0.00	0.00	0.00	0.00	1816.70	0.40	0.00	1817.10	0.00	0.00	0.00	0.00	1375.10	6585.60
1976	0.00	201.90	2256.00	875.10	0.00	0.00	0.00	0.00	0.00	2063.00	0.70	0.00	2064.50	0.00	0.00	0.00	0.00	1694.30	7092.60
1977	0.50	210.70	2149.00	994.40	23.90	3.20	1732.10	0.10	19.40	2662.00	1.40	42.40	2706.60	3.10	0.00	35.00	9.40	149.50	8045.70
1978	0.50	192.70	2187.40	1165.50	25.60	3.20	1925.60	0.10	18.90	3594.30	0.90	48.10	3643.30	2.70	0.00	36.00	8.60	110.00	9328.90
1979	0.00	221.60	2213.40	1320.40	0.00	0.00	0.00	0.00	0.00	4582.90	0.70	0.00	4583.60	0.00	0.00	0.00	0.00	2643.00	10982.00
1980	0.00	232.50	2628.70	1519.70	0.00	0.00	0.00	0.00	0.00	5792.60	0.90	0.00	5793.50	0.00	0.00	0.00	0.00	2735.20	12909.60
1981	0.00	234.00	3858.40	1784.00	0.00	0.00	0.00	0.00	0.00	6842.30	0.30	0.00	6842.60	0.00	0.00	0.00	0.00	2948.20	15668.00
1982	0.30	209.70	5126.00	2011.50	53.00	0.40	2600.30	0.10	17.00	7727.30	0.40	163.50	7891.20	10.70	0.00	50.00	27.30	679.90	18679.00
1983	0.00	220.60	6333.70	2464.00	0.00	0.00	0.00	0.00	0.00	8703.60	0.50	0.00	8704.10	0.00	0.00	0.00	0.00	4636.60	22359.00
1984	0.00	248.50	7791.40	2990.50	0.00	0.00	0.00	0.00	0.00	9731.00	0.50	0.00	9732.30	0.00	0.00	0.00	0.00	5626.00	26388.70
1985	0.00	230.50	9819.10	3469.00	0.00	0.00	0.00	0.00	0.00	11527.70	0.61	0.00	11528.30	0.00	0.00	0.00	0.00	5449.30	38497.00
1986	0.00	241.10	10422.80	4021.60	0.00	0.00	0.00	0.00	0.00	15142.10	0.50	0.00	15143.60	0.00	0.00	0.00	0.00	5474.20	35303.30
1987	0.00	275.00	10422.80	4660.94	0.00	0.00	0.00	0.00	0.00	20190.50	3.70	0.00	20194.20	0.00	0.00	0.00	0.00	0.00	40852.90
1988	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NOTES: $ The Figures are the Total of all Insurance Holdings.

@ This is treated here as the residual item.

The Total many times is more than the aggregate of the individual categories due possibly to some overstatement of holdings by a few parties such as Provident Fund investments of Exempted Establishments which also include investments in Small Savings instruments(not covered in this Statement) separate data for which are not available.

SOURCE:1)REPORT ON CURRENCY AND FINANCE,R.B.I.

2)MONTHLY BULLETIN,R.B.I.,Various Issues.

TABLE - 6

OWNERSHIP OF TREASURY BILLS OUTSTANDING.

(Rs.Crores.)

YEARS.	RESERVE BANK OF INDIA.	BANKS COMM.& CO-OP.	STATE GOVTS.	OTHERS.	TOTAL.
1950\51	275		83	0	358
1951\52	268		46	0	314
1952\53	261		42	12	315
1953\54	253		70	12	335
1954\55	366		94	12	472
1955\56	488		94	13	595
1956\57	714		122	0	836
1957\58	1190		105	0	1295
1958\59	1022		177	26	1225
1959\60	1020		249	29	1298
1960\61	886		191	29	1106
1961\62	912		233	30	1175
1962\63	1048		221	31	1300
1963\64	1099		246	37	1382
1964\65	1142		220	82	1444
1965\66	1388		151	73	1612
1966\67	1594		166	160	1920
1967\68	1600		231	178	2009
1968\69	1836		258	150	2244
1969\70	1757		387	88	2232
1970\71	2218	40	211	49	2518
1971\72	2449	81	152	84	2766
1972\73	3385	380	199	80	4044
1973\74	3741	438	146	59	4384
1974\75	3746	675	537	105	5063
1975\76	5096	435	235	44	5810
1976\77	5059	48	231	34	5372
1977\78	7216	1071	278	54	8619
1978\79	6703	135	725	45	7608
1979\80	9203	65	834	94	10196
1980\81	11844	521	435	51	12851
1981\82	9955	151	109	58	10273
1982\83	15905	1155	297	74	17431
1983\84	14647	938	17	154	15756
1984\85	18985	298	143	26	19452
1985\86	24249	46	1520	199	26014
1986\87	18561	16	1268	31	19876
1987\88	7091	14	888	35	8028

NOTES:1) $ Refers to State and other Approved bodies till 1969\70.
Refers to Public till 1969\70.

2) The Amount outstanding shown against different holders from 1975\76 are net of bills rediscounted with R.B.I. at the end of the year.

SOURCE:REPORT ON CURRENCY AND FINANCE,R.B.I.

TABLE - 7

NET INTEREST PAYMENTS ON TOTAL INTERNAL DEBT.

(Rs.Crores.)

YEAR	INTEREST PAYMENTS - COMPONENTS.													INTEREST RECEIPTS			NET INTEREST PAYMENTS ON
	MARKET LOANS.	TREASURY BILLS.	MANAGEM'T OF DEBT.	OTHERS.	TOTAL.	SMALL SAVINGS.	PROVIDENT FUNDS.	OTHERS.	TOTAL.	RESERVE FUNDS.	OTHER OBLIGAT'S.	TOTAL.	GRAND TOTAL	STATES & U.T.	OTHERS	TOTAL	TOTAL INTERNAL DEBT.
	1	2	3	4	5 (SUM 1-4)	6	7	8	9 SUM(6-8)	10	11	12 (10+11)	13 (5+9+12)	14	15	16	17
1950\51	42.17	1.69	0.23		44.07	8.29	3.54	0.78	12.61	0.00	7.25	7.25	63.93	3.48	31.60	35.08	28.85
1951\52	42.68	1.78	0.23	1.26	45.87	9.61	3.62	0.78	14.01	0.00	8.34	8.34	68.22	5.30	32.06	37.36	30.86
1952\53	41.68	2.04	0.21	1.16	45.09	11.07	4.03	0.78	15.88	0.00	9.64	9.64	70.61	7.76	34.29	42.05	28.56
1953\54	41.13	7.58	0.22		48.67	12.60	4.52	0.76	17.88	0.00	7.87	7.87	74.42	10.37	34.87	45.24	29.18
1954\55	42.64	9.63	0.25	0.23	52.75	13.98	4.91	0.77	19.66	0.00	6.76	6.76	79.17	14.60	37.37	51.97	27.2
1955\56	45.95	12.31	0.25	0.62	59.13	15.99	5.64	0.64	22.27	0.00	6.31	6.31	87.71	20.37	37.26	57.63	30.08
1956\57	47.41	16.46	0.13	1.26	65.26	17.62	6.44	0.68	24.74	0.00	6.17	6.17	96.17	33.40	42.98	73.38	22.79
1957\58	52.74	25.60	0.43	0.99	79.76	20.43	7.03	0.71	28.17	0.00	6.70	6.70	114.63	34.99	51.85	86.84	27.79
1958\59	61.18	29.57	0.37	1.63	92.75	21.57	7.75	0.80	30.12	0.00	6.29	6.29	129.16	40.89	58.97	99.86	29.3
1959\60	75.17	33.05	0.41	2.25	110.88	25.01	8.71	0.86	34.58	0.00	6.18	6.18	151.64	49.45	64.23	113.68	37.96
1960\61	84.74	31.18	0.39	1.97	118.28	28.85	9.68	1.62	40.15	0.00	5.77	5.77	164.20	57.63	58.76	116.39	47.81
1961\62	89.48	27.53	0.36	2.30	119.67	34.87	11.21	4.42	49.70	0.00	6.53	6.53	175.90	68.75	75.06	143.81	32.09
1962\63	95.59	29.71	0.12	3.17	128.59	38.19	13.31	5.25	56.75	2.98	5.22	8.12	193.46	68.48	84.75	153.23	40.23
1963\64	104.90	31.86	0.40	2.31	139.47	46.59	15.11	6.43	68.13	2.24	6.44	8.68	216.28	118.90	124.66	243.56	-27.28
1964\65	115.73	39.73	0.43	2.50	158.39	48.07	17.18	7.89	73.14	2.07	8.18	10.25	241.78	114.66	142.63	257.29	-15.51
1965\66	126.31	53.88	0.21	2.75	183.15	62.20	20.18	9.30	91.68	2.31	9.17	11.48	286.31	151.88	155.79	307.67	-21.36
1966\67	137.29	66.87	0.53	5.79	210.48	78.35	23.88	15.36	109.59	2.21	10.04	12.25	332.32	184.46	193.03	377.49	-45.17
1967\68	147.61	71.28	0.52	4.17	223.58	88.44	27.68	16.63	124.75	1.98	6.83	8.81	357.06	288.80	224.58	425.38	-68.32
1968\70	158.97	63.54	0.51	4.12	227.14	85.68	31.13	19.06	135.87	5.29	7.02	12.31	375.32	241.38	273.28	514.58	-139.26
1969\70	178.09	66.73	0.58	3.69	241.09	93.55	34.74	22.86	151.15	5.13	8.59	13.72	405.96	291.33	313.46	594.79	-188.83
1970\71	198.63	68.23	0.29	1.89	261.04	107.24	40.89	18.68	166.81	6.15	10.48	16.63	444.48	259.02	329.74	588.76	-144.28
1971\72	203.21	95.86	0.60	1.64	301.31	115.38	45.20	20.18	181.60	7.59	12.37	19.96	502.87	299.89	299.35	599.24	-96.37
1972\73	232.72	129.95	0.67	3.09	366.43	121.15	52.72	20.91	194.78	10.25	14.28	24.53	585.74	381.68	331.76	713.44	-127.7
1973\74	267.26	168.49	1.33	2.16	439.24	133.94	59.01	115.84	308.79	12.25	21.36	33.61	781.64	390.20	345.61	735.81	45.83
1974\75	292.11	236.31	0.93	0.11	529.46	188.27	72.15	19.58	280.00	14.10	16.39	30.49	839.95	373.97	401.55	775.52	64.43
1975\76	338.51	251.58	1.88	8.49	600.46	246.43	100.50	18.65	365.58	17.17	54.55	71.72	1037.76	456.79	476.95	933.74	104.02
1976\77	376.97	260.17	1.62	4.56	643.32	275.93	114.57	35.63	426.13	32.88	65.28	97.36	1166.81	390.24	715.21	1105.45	61.36
1977\78	442.19	245.38	2.32	1.82	691.71	319.54	133.82	100.80	552.56	37.69	30.29	67.98	1312.25	595.77	844.70	1440.47	-128.22
1978\79	555.60	328.54	2.71	0.03	886.88	353.75	158.10	134.32	646.17	37.84	33.09	70.13	1603.18	601.89	826.16	1427.25	175.93
1979\80	671.26	396.78	3.22	0.22	1071.48	424.44	165.50	232.11	822.05	43.99	37.24	81.13	1974.66	499.36	869.50	1368.86	605.8
1980\81	807.60	557.56	3.85	0.08	1369.09	422.23	188.42	290.74	901.39	48.99	53.68	102.67	2373.15	889.05	905.95	1795.00	578.15
1981\82	1016.16	613.71	4.73	0.02	1634.62	581.71	220.76	379.47	1181.94	48.00	71.99	119.99	2936.55	900.04	1306.96	2215.00	721.55
1982\83	1193.63	699.38	5.77	121.27	2020.05	698.11	259.76	504.94	1454.81	45.62	112.83	158.45	3633.31	1029.23	1022.77	2052.00	781.31
1983\84	1567.21	761.80	9.35	161.04	2499.40	767.65	274.84	691.37	1733.86	48.06	159.14	207.20	4439.66	1264.34	1403.66	2668.00	1771.66
1984\85	1998.87	1088.03	9.53	28.92	3101.35	996.87	332.99	822.93	2152.79	54.89	205.33	260.22	5514.36	1615.55	2347.45	3963.00	1551.36
1985\86	2464.77	1423.47	10.08	20.94	3919.26	1470.77	436.60	961.76	2869.13	58.29	127.60	185.89	6974.28	1872.27	2714.48	4586.75	2387.53
1986\87	3098.00	1633.27	10.43	21.05	4762.75	-1724.42	496.47	1268.03	3488.92	55.32	173.00	228.32	8479.98	2754.00	2598.94	5353.02	3126.96
1987\88	3680.58	1796.74	11.07		5513.59	2213.00	583.19	1693.44	4489.71	70.87	200.26	271.13	10274.43	3157.72	2597.05	5754.77	4519.66

SOURCE:1)REPORT ON CURRENCY AND FINANCE,RBI.
2)FINANCE ACCOUNTS,GOVT. OF INDIA.

TABLE - 8

Interest Rates of New Loans Raised

(% ages.)

Years	Maturity Period of New Market Loans Raised During The Year (In Years.)																												
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1950/51											3.00																		
1951/52					3.00																								
1952/53																													
1953/54						3.50																							
1954/55								3.50																					
1955/56								3.50																					
1956/57				3.25					3.50							3.75													
1957/58			3.25					3.75					4.00																
1958/59			3.50				3.50	3.75					4.00																
1959/60								3.50					3.75					4.00											
1960/61				3.50														4.00											
1961/62				3.50		3.50												4.00											
1962/63				3.75				4.00													4.50								
1963/64				4.00				4.25													4.50								
1964/65				4.00																			4.75						
1965/66	4.25			4.50	4.75																		5.50						
1966/67			4.50																				5.50						
1967/68			4.50										5.00										5.50						
1968/69					4.25																				5.50				
1969/70					4.25																						5.50		
1970/71					4.50																						5.50		
1971/72					4.75			5.00					5.25														5.75		
1972/73					4.75				5.00	5.00				5.25													5.75		
1973/74					4.75	4.75			5.00			5.25															5.75		
1974/75		5.25	5.00						5.50			6.00									6.25	6.00							
1975/76					5.50											6.00			6.25							6.50			
1976/77						5.50									6.00	6.00					6.25	6.50		6.50	6.50				
1977/78						5.50								6.00			6.25	6.25	6.25				6.50	6.50	6.50	6.50			
1978/79			5.50					6.00					6.25		6.25	6.25					6.50					6.75			
1979/80			5.75			6.00		6.25		6.25				6.50		6.50										6.75		7.00	
1980/81				6.00		6.25		6.50			6.75					7.00												7.50	
1981/82		6.00		6.25				6.75			7.00			7.25				7.50										8.00	
1982/83		6.25			6.75			7.25										7.75			8.25					8.75			9.00
1983/84						7.75				8.25													9.50						10.00
1984/85			7.75		8.00			8.50										9.50								10.25		10.50	
1985/86			9.00		9.25			9.50										10.50			10.00							11.50	
1986/87			10.00		10.20			10.50								11.30		11.50											
1987/88								10.50					11.00					11.50											

Source:Report on Currency and Finance, RBI.

TABLE - 9

SMALL SAVINGS MEDIA , (1950 - 1988)

(Rs.Crores.)

YEARS	SMALL SAVINGS SCHEMES: NATIONAL SAVINGS CERTIFI--CATES (CERTIF.)	10-YEAR TREASURY SAVINGS DEPOSIT CERTIF.	10-YEAR TREASURY SAVINGS DEPOSIT CERTIF.	15-YEAR ANNUITY CERTIF.	10-YEAR NATIONAL PLAN CERTIF.	12-YEAR NATIONAL PLAN SAVINGS CERTIF.	10-YEAR DEFENCE DEPOSIT CERTIF.	12-YEAR NATIONAL DEFENCE CERTIF.	10-YEAR NATIONAL SAVINGS CERTIF. (I-issue)	7-YEAR NATIONAL SAVINGS CERTIF ISSUES II	III	IV	V	NATIONAL SAVINGS ANNUITY CERTIF.	5-YEAR NATIONAL DEV. BONDS.	6-YEAR NATIONAL SAVINGS CERTIF. ISSUES VI	VII	10-YEAR SOCIAL SECURITY CERTIF.	INDIRA VIKAS PATRAS
DATE OF ISSUE	#	Feb 1'51	Jun 1'57	Jul11'54	May10'54	Jun 1'57	Nov11'62	Nov15'62	Jun 1'65	Mar16'70	Mar16'70	Mar16'70	Jan 1'	Apl 1'76	Aug31'77	May 1 1981		Jun 1'82	
DATE OF CLOSE	#	May31'57	Nov10'62	Sep 1'71	May31'57	Nov14'62	Mar14'70	Mar14'70	Mar14'70		Dec12'80	Apl30'81	Apl30'	Dec12'80	Apl30'81	------------			
1950\51	(##) 58	(3.5) 5																	
1951\52	76	18																	
1952\53	94	26																	
1953\54	115	32																	
1954\55	134	37		(4.25) 1	(4.5) 7														
1955\56	154	41		1	16														
1956\57	173	44		2	25														
1957\58	151	44	(4) 5	2	23	(5.41) 71													
1958\59	--		12	3		152													
1959\60			22	3		222													
1960\61			37	3		287													
1961\62			53	4		348													
1962\63			61	4		368													
1963\64				4			(4.50) 9	(6.25) 54											
1964\65				4			29	160											
1965\66				4			49	260											
1966\67				3			60	333	(8) 18										
1967\68				3			67	401	34										
1968\69				3			75	471	44										
1969\70				2			80	528	53	(5) 2	(5) 1	(7.25) 1							
1970\71				2			84	586	63	57	8	(7.5) 27							
1971\72				2			83	564	59	100	15	64							
1972\73										150	19	94							
1973\74										180	22	116	(7.5) 2						
1974\75										(6) 205	(6) 27	($) 129	($) 16						
1975\76										227	29	142	56						
1976\77										238	31	149	125						
1977\78										220	29	150	234						
1978\79										(6.5) 209	33	174	(#) 474						
1979\80										206	33	179	758						
1980\81										201	33	170	1000						
1981\82										197	--	142	975			(12) 560	(12) 101		
1982\83										272		---	--			1485	217	(11.3) 12	
1983\84										379						2744	418	15	
1984\85										451						5155	669	16	
1985\86										449						7943	919	18	
1986\87										448						(11) 10712	(11) 1125	18	(-) 838
1987\88										444						13224	1187	20	1846

NOTES: Figures in brackets refer to the rate of interest applicable for all the following period till the new rate is mentioned.

National Savings Certificates were of three periods 5 - years, 7-years and 12-years. Thera Date of issue abd Date of close were as follows-5-year-Jul 1'48 and Jul 1'53, 7-year-Jun 1'48 and May 31 '57 and 12-year - Oct 1'43 and May 31'57.

The rates of interest were -5-year -3.5%, 7-year-3.57% and 12-year-4.17%.

$-10.25%.

$-10.75%.

SOURCE:REPORT ON CURRENCY AND FINANCE,R.B.I.

TABLE - 10

SMALL SAVINGS - POST OFFICE

(Rs.Crores.)

YEAR (end of March)	Date of issue / Date of close	Savings Bank @	Time Deposit Accounts: 1-Yr Mar 16'70	2-Yr Aug 1'73	3-Yr Mar 16'70	5-Yr Mar 16'70	Total $	Recurring Deposit Accounts: 5-Yr Apl 1'70 #	Cumulative Time Deposit Accounts: 5-Yr Jan 2'59 Oct-1'73	10-Yr Jan 2'59 Apl 1'86	15-Yr June '62 Oct 1'73	Total ¥
1950\51		187										
1951\52		200										
1952\53		218										
1953\54		232										
1954\55		257										
1955\56		298										
1956\57		329										
1957\58		347										
1958\59		367										
1959\60		395							(3.3)-			
1960\61		441							2	(3.3)1		3
1961\62		476							-	-		6
1962\63		483							-	-	(4.3)-	11
1963\64		522							-	-	-	19
1964\65		565							-	-	-	27
1965\66		653							(4.2)21	(4.2)13	(4.8)2	37
1966\67		711							27	19	4	50
1967\68		770							(4.5)31	(4.5)24	6	62
1968\69		821							39	31	8	78
1969\70		897	(5.5) -	-	(6.25) -	(6.75) -	-	(6.25) -	(4.75)49	38	(5.0)11	98
1970\71		990	(6.0) 5	-	(7.00) 3	(7.25) 69	77	(6.75)1	54	(4.75)47	14	115
1971\72		1046	16	-	25	186	227	8	58	58	17	134
1972\73		1107	29	-	63	403	490	23	57	69	21	147
1973\74		1252	(6.0)41	(7.0)37	(7.00)91	(7.25)641	810	47	53	82	25	164
1974\75		1221	51	93	93	861	1098	(9.25)78		(6.25)100		176
1975\76		1475	(8.0)52	(8.5)120	89	10.0)1154	1412	107		115		181
1976\77		1537	48	140	92	1440	1720	144		136		194
1977\78		1677	(7.0)49	(7.5)123	(8.00)86	1797	2049	187		161		209
1978\79		1850	(8.0)46	(8.5) 64	(9.00)63	10.5)2269	2432	(10.5)244		(6.75)198		238
1979\80		2036	(8.5)46	(9.5) 34	(10.5)42	2898	3020	317		246		284
1980\81		2334	52	30	33	3460	3558	377		305		341
1981\82		2351	(9.0)45	(9.75)24	67	4150	4245	429		364		396
1982\83		2496	51	26	108	4616	4784	(11.5)535		428		459
1983\84		2648	55	(10.0)27	130	11.5)5088	5278	691		469		495
1984\85		2832	63	28	103	5867	6063	856		513		531
1985\86		3047	(9.5)89	(10.5)35	(11.0)79	6912	7108	1051		544		557
1986\87		3234	104	(10.0)44	(10.5)61	(11)6241	6450	(11)1263				571
1987\88		3521	162	65	61	5433	5720	1537				554

NOTES: Figures in brackets refer to the rate of interest applicable for all the following period till the new rate is mentioned.

@ - Outstandings include interest credited to deposits accounts from time to time
Outstandings also include the balances under Dead Savings Bank Accounts.

- Introduced from april 1,1970

$ - Introduced from March 16;1970

¥ - Cumulative time deposits includes five year ,ten year and fifteen years cumulative time deposits.
The first two commenced from jan 2,1959 and the last from june,1962.

SOURCE:Report on Currency and Finance,RBI.

Table-11

SMALL SAVINGS - DEPOSITS AND CERTIFICATES.

(Rs.Crores.)

YEAR (end of March.)	SMALL SAVINGS DEPOSITS	SMALL SAVINGS CERTIFICATES	TOTAL SMALL SAVINGS SCHEMES
1951	188.45	148.55	337.00
1952	201.22	171.78	373.00
1953	219.05	193.95	413.00
1954	232.06	218.94	451.00
1955	258.52	250.48	509.00
1956	293.63	282.37	576.00
1957	322.31	315.69	638.00
1958	339.72	367.28	707.00
1959	360.75	420.25	781.00
1960	387.30	479.70	867.00
1961	433.67	536.33	970.00
1962	473.43	585.57	1059.00
1963	483.45	647.55	1131.00
1964	530.78	727.22	1258.00
1965	584.44	801.56	1386.00
1966	680.41	856.59	1537.00
1967	750.91	905.09	1656.00
1968	821.45	957.55	1779.00
1969	891.77	1001.23	1893.00
1970	993.48	1027.52	2021.00
1971	1176.16	1029.84	2206.00
1972	1403.41	1026.59	2430.00
1973	1780.19	1019.81	2800.00
1974	2286.35	988.65	3275.00
1975	2607.45	944.55	3552.00
1976	3030.60	914.40	3945.00
1977	3449.75	908.25	4358.00
1978	3841.84	1061.16	4903.00
1979	4621.70	1128.30	5750.00
1980	5499.14	1355.86	6855.00
1981	6415.90	1560.10	7976.00
1982	7306.20	2068.80	9375.00
1983	8126.32	2971.68	11098.00
1984	8941.95	4565.05	13507.00
1985	10113.86	7043.14	17157.00
1986	11595.87	9853.13	21449.00
1987	11301.94	13423.06	24725.00
1988			28025.00

SOURCE:FINANCE ACCOUNTS, GOVERNMENT OF INDIA.

TABLE - 12

REVENUE AND CAPITAL RECEIPTS, REVENUE, CAPITAL, DEVELOPMENT, NON-DEVELOPMENT EXPENDITURE OF CENTRAL GOVERNMENT.

(Rs.Crores.)

YEAR	REVENUE RECEIPTS	TAX REVENUE	INCOME TAX	TAX on PRO & TRA	TAX on COM& SER	CAPITAL RECEIPTS	CAPITAL EXPEND.	DEV. EXPEND.	NON-DEV EXPEND.	CAPITAL FORMTION	NON-CAP. FORMTION	TOTAL EXPEND.	REVENUE EXPEND.
1950\51	405.86	357.00	125.70	3.81	227.49	120.55	182.59	0.00	0.00	99.00	0.00	529.23	347.00
1951\52	509.49	459.99	134.74	4.81	320.44	169.04	293.43	0.00	0.00	163.00	0.00	674.84	381.00
1952\53	412.77	370.23	128.25	1.76	240.22	68.82	164.81	0.00	0.00	142.00	0.00	554.68	391.00
1953\54	394.25	347.73	107.09	2.26	238.38	218.36	307.86	0.00	0.00	285.00	0.00	789.16	401.00
1954\55	434.75	384.15	103.64	2.31	278.20	272.72	461.84	0.00	0.00	438.00	0.00	878.19	416.00
1955\56	481.19	411.47	113.23	2.55	295.69	288.37	478.34	0.00	0.00	449.00	0.00	911.66	441.00
1956\57	563.23	493.76	144.17	2.41	347.18	382.75	616.78	0.00	0.00	511.00	580.00	1091.00	474.00
1957\58	673.38	575.33	146.40	10.61	418.32	298.00	798.00	0.00	0.00	722.00	733.00	1455.00	631.00
1958\59	678.21	553.06	151.80	14.91	386.97	590.00	807.00	0.00	0.00	796.00	750.00	1546.00	675.00
1959\60	778.59	642.44	176.88	17.02	448.54	758.00	970.00	0.00	0.00	789.00	923.00	1632.00	736.00
1960\61	877.46	730.14	191.97	13.49	524.68	1155.00	1029.33	0.00	0.00	767.00	939.00	1706.00	826.00
1961\62	1036.79	875.37	228.84	14.21	632.32	1022.47	1236.74	0.00	0.00	907.00	960.00	1867.00	912.00
1962\63	1427.53	1060.98	312.39	16.15	732.44	1230.37	1480.50	0.00	0.00	1115.00	1263.00	2378.00	1314.00
1963\64	1846.14	1374.33	414.02	17.02	943.29	1415.00	1794.10	0.00	0.00	1450.00	1547.00	2997.00	1659.00
1964\65	2080.59	1562.80	457.27	16.49	1089.04	1717.23	2148.50	0.00	0.00	1600.00	1598.00	3198.00	1807.00
1965\66	2345.00	1785.00	453.72	19.83	1311.07	1646.00	2139.00	2341.00	1599.00	1806.00	2134.00	3940.00	2081.00
1966\67	2473.22	1933.96	500.56	20.13	1413.27	2473.17	3059.94	2390.00	2068.00	1793.00	2665.00	4458.00	2245.00
1967\68	2553.64	1936.67	461.43	18.19	1457.05	2250.64	2625.26	2268.00	2229.00	1675.00	2822.00	4497.00	2450.00
1968\69	2759.87	2018.86	483.73	21.56	1513.57	2078.07	2343.75	2235.00	2291.00	1660.00	2866.00	4526.00	2679.00
1969\70	3067.00	2201.40	508.70	24.70	1668.00	2508.00	2678.70	2352.00	2573.00	1612.00	3313.00	4925.00	2942.00
1970\71	3341.90	2451.30	484.60	26.00	1939.90	2524.20	2972.00	2659.00	2917.00	1888.00	3688.00	5576.00	3179.00
1971\72	4028.00	2928.00	547.00	39.00	2342.00	3031.00	3450.00	3126.00	3584.00	2161.00	4549.00	6710.00	4128.00
1972\73	4578.00	3443.00	699.00	53.00	2691.00	2974.00	3829.00	3949.00	3900.00	2627.00	5222.00	7849.00	4592.00
1973\74	5073.00	3900.00	796.00	52.00	3052.00	3646.00	4211.00	3754.00	4377.00	2665.00	5466.00	8131.00	4836.00
1974\75	6557.60	5097.40	1082.60	59.20	3955.60	3296.70	4781.80	4975.00	4810.00	3677.00	6108.00	9785.00	5793.00
1975\76	8075.40	6009.80	1400.40	79.30	4530.10	4697.30	5950.20	6472.00	5565.00	4664.00	7373.00	12037.00	7189.00
1976\77	8738.90	6581.10	1597.70	88.40	4895.00	5606.60	6835.70	7174.00	5976.00	4991.00	8159.00	13150.00	8441.00
1977\78	9792.10	7060.30	1663.20	78.50	5318.60	5588.50	6951.30	8438.00	6548.00	5688.00	9298.00	14986.00	9362.00
1978\79	11239.50	8567.90	1746.80	95.10	6726.00	6938.30	8736.30	10377.00	7340.00	6913.00	10804.00	17717.00	10948.00
1979\80	11339.50	8567.60	1867.30	82.60	6617.70	6125.00	7864.10	11112.80	7392.00	7229.00	11275.00	18504.00	12034.00
1980\81	12828.60	9387.80	1904.70	87.60	7395.50	9432.30	10294.60	13350.00	9145.00	9812.00	13483.00	22495.00	14544.00
1981\82	15574.20	11573.00	2661.80	101.60	8809.60	10155.70	11254.10	15148.00	10253.00	10799.00	14608.00	25407.00	15868.00
1982\83	18091.30	13056.40	2808.00	116.30	10052.10	13286.38	13687.50	18095.00	12399.00	12403.00	18891.00	30494.00	19346.00
1983\84	20492.60	15476.50	3198.10	127.10	12151.30	16659.10	15678.70	21084.00	14904.00	14702.00	21286.00	35988.00	22890.00
1984\85	24383.70	17693.70	3423.10	139.20	14131.40	18743.00	18990.60	26276.00	17603.00	17551.00	26328.00	43879.00	27881.00
1985\86	29206.90	21179.80	3611.60	168.40	16868.00	18051.90	17423.90	30852.00	22260.00	21477.00	31635.00	53112.00	34772.00
1986\87	34768.60	24317.50	3877.70	138.70	19558.10	20587.70	21073.80	35872.00	28032.00	24320.00	39703.00	63618.00	42544.00
*1987\88	40208.60	28330.90	4431.90	133.60	22725.00	24055.40	21638.40	38501.00	31524.00	26212.00	44813.00	70343.00	48705.00

* Revised Estimates.

NOTES: 1) PRO & TRA - Property and Transactions.
2) COM & SER - Commodities and Services.
3) EXPEND - Expenditure.
4) FORMTION - Formation

SOURCE:REPORT ON CURRENCY AND FINANCE, R.B.I.

TABLE - 13

EXPENDITURE ON DEFENCE AND SUBSIDIES TO TOTAL EXPENDITURE

(Rs.Crores.)

YEARS	DEFENCE EXPENDITURE			SUBSIDIES	
	CAPITAL ACCOUNT	REVENUE ACCOUNT	TOTAL	FOOD	TOTAL
	1	2	3	4	5
1950\51	4.19	164.13	168.32		26.10
1951\52	10.17	170.96	181.13		63.50
1952\53	5.96	179.52	185.48		32.10
1953\54	10.16	186.30	196.46		7.50
1954\55	8.47	186.66	195.13		7.80
1955\56	17.59	172.23	189.82		23.50
1956\57	19.70	192.15	211.85		15.20
1957\58	22.93	256.72	279.65		55.80
1958\59	27.88	250.93	278.81		23.50
1959\60	36.11	230.86	266.97		26.00
1960\61	33.39	247.55	280.94		30.70
1961\62	22.95	289.54	312.49		33.20
1962\63	48.61	425.30	473.91		70.80
1963\64	111.97	704.15	816.12		56.70
1964\65	112.95	692.85	805.80		62.30
1965\66	122.58	762.18	884.76		47.50
1966\67	110.79	797.80	908.59	91.00	204.90
1967\68	106.22	862.21	968.43	95.00	154.20
1968\69	104.14	929.05	1033.19	26.00	51.00
1969\70	135.24	965.64	1100.88	30.00	96.00
1970\71	147.80	1051.50	1199.30	18.00	94.20
1971\72	178.00	1347.00	1525.00	50.00	140.30
1972\73	213.00	1439.00	1652.00	117.00	204.60
1973\74	199.00	1481.00	1680.00	251.00	360.90
1974\75	192.00	1920.20	2112.20	295.00	419.20
1975\76	221.20	2251.10	2472.30	250.10	469.70
1976\77	215.40	2347.20	2562.60	506.00	947.00
1977\78	247.70	2385.90	2633.60	480.00	1286.00
1978\79	253.70	2613.90	2867.60	570.00	1474.90
1979\80	262.00	3093.60	3355.60	600.00	1821.20
1980\81	326.40	3540.40	3866.80	650.00	1874.70
1981\82	484.60	4167.20	4651.80	700.00	1946.40
1982\83	526.60	4881.70	5408.30	710.00	2377.80
1983\84	642.40	5666.70	6309.10	835.00	2866.20
1984\85	736.80	6399.20	7136.00	1101.00	4422.00
1985\86	967.30	7020.10	7987.40	1650.00	5069.80
1986\87	1227.10	8966.50	10193.60	2000.00	5576.00
‡1987\88	3978.00	8534.00	12512.00	2000.00	6279.12

‡ Revised Estimates.

NOTES:The Subsidies include that given on food.indigenous fertilizers,imported fertilizers,export promotion and market development,railways,mill-made cloth,handloom,white printing paper for educational purposes,interest subsidies and other subsidies

SOURCE:ECONOMIC AND ECONOMIC AND FUNCTIONAL CLASSIFICATION CENTRAL GOVERNMENT BUDGET, GOVT. OF INDIA.

TABLE - 14

PATTERN OF SOME MAJOR ITEMS OF CENTRAL GOVERNMENT BUDGET

(Rs.Crores.)

YEARS	GOVT. CONSUM. EXPEND.	WAGES AND SALARIES			TOTAL WAGES AND SALARIES	CAPITAL FORMATION		NET SAVINGS
		GOVT. ADM.	DEPT.COM. UNDERT-AKINGS.	GOVT.OUT-LAY ON CONSTRUCT		GROSS	NET	
	1	5	6	7	8	2	3	4
1956\57	336	170	182	46	398	262	212	123
1957\58	424	196	194	56	446	356	280	32
1958\59	431	197	207	64	468	331	224	-22
1959\60	424	203	209	63	475	244	146	37
1960\61	456	246	230	73	549	311	213	70
1961\62	503	238	189	86	513	348	288	236
1962\63	683	321	268	94	683	446	369	220
1963\64	1106	414	287	120	821	552	477	233
1964\65	1035	467	325	135	927	522	444	181
1965\66	1109	523	370	127	1020	520	436	426
1966\67	1212	590	407	122	1119	500	415	156
1967\68	1280	666	453	102	1221	467	271	43
1968\69	1386	706	493	103	1302	276	192	222
1969\70	1477	746	526	97	1369	393	318	327
1970\71	1669	939	583	112	1534	519	428	312
1971\72	2055	982	709	118	1809	597	506	178
1972\73	2262	1080	767	138	1985	677	538	308
1973\74	2312	1193	870	149	2212	782	629	431
1974\75	2867	1620	1090	161	2871	1227	1084	773
1975\76	3449	1856	1332	175	3363	1205	1045	831
1976\77	3606	1953	1348	204	3405	1112	945	719
1977\78	3678	1903	1355	218	3476	1107	943	886
1978\79	3975	2021	1498	252	3771	1301	1109	983
1979\80	4502	2167	1664	286	4117	1527	1278	-19
1980\81	5076	2479	1917	362	4758	1817	1516	-52
1981\82	6096	2791	2261	483	5535	2522	1971	526
1982\83	7055	3265	2714	521	6500	2806	2108	1
1983\84	8130	3752	3086	648	7486	3356	2461	-582
1984\85	9511	4501	3586	788	8875	4149	3199	-1633
1985\86	11210	5094	3993	908	9995	4558	3412	-2587
$1986\87	14429	6455	4808	1152	12415	5905	4631	-3439
#1987\88	17121	7093	5307	1275	13675	6136	4655	-5190

$ REVISED ESTIMATES

BUDGET ESTIMATES

SOURCE:ECONOMIC AND ECONOMIC AND FUNCTIONAL CLASSIFICATION OF CENTRAL GOVERNMENT BUDGET, GOVT.OF INDIA.

TABLE - 15

WHOLESALE PRICE INDEX,RESERVE MONEY,MONEY SUPPLY AND NATIONAL INCOME.

(Rs.Crores.)

YEARS	WHOLESALE PRICE INDEX	RESERVE MONEY	MONEY SUPPLY (M 3)	MONEY SUPPLY (M 1)	N N P (fc) 1970-71 Prices	N N P (fc) Current Prices
	1	2	3	4	5	6
1950-51	47.50	1490	2287	2016	16731	8012
1951-52	50.40	1283	2137	1804	17086	9141
1952-53	44.10	1262	2121	1765	17699	8920
1953-54	46.20	1287	2200	1794	18854	9582
1954-55	43.00	1369	2374	1921	19328	8716
1955-56	40.80	1633	2683	2217	19953	9262
1956-57	46.50	1687	2869	2345	21046	10696
1957-58	47.90	1775	3163	2417	20587	10691
1958-59	49.80	1899	3476	2538	22329	12008
1959-60	51.70	2032	3883	2725	22676	12402
1960-61	55.10	2182	3964	2869	24250	13263
1961-62	55.20	2291	4243	3046	25039	13987
1962-63	57.30	2479	4553	3310	25414	14795
1963-64	60.90	2716	5037	3752	26746	16977
1964-65	67.50	2898	5199	4088	28808	20001
1965-66	72.70	3155	6134	4529	27103	20637
1966-67	82.80	3373	6817	4950	27298	23848
1967-68	92.40	3570	7460	5350	29715	28054
1969-69	91.30	3957	8306	5779	30513	28607
1969-70	94.80	4242	9337	6387	32468	31606
1970-71	100.00	4814	10948	7321	34235	34235
1971-72	105.60	5380	12690	8320	34713	36582
1972-73	116.20	6015	15033	9684	34215	40317
1973-74	139.70	7260	17571	11172	36033	50468
1974-75	174.90	7387	19457	11967	36590	59505
1975-76	173.00	7732	22286	13143	40274	62302
1976-77	176.60	9798	27321	15650	40429	66924
1977-78	185.80	10941	32906	14388	44046	75706
1978-79	185.80	14083	39861	17229	46533	81321
1979-80	217.60	16465	46801	19953	44136	88813
1980-81	257.30	18788	55358	32117	47414	105743
1981-82	281.30	20463	62426	24729	49934	120966
1982-83	288.60	23110	72868	28535	51154	133807
1983-84	316.00	28824	85899	33066	55300	158265
1984-85	338.40	31477	101957	39649	57243	174018
1985-86	357.80	37858	118338	43599	60143	195707
1986-87	376.80	44813	140633	51177	63000	215881
1987-88	405.40	53266	162205	57656		

SOURCES:1)REPORT ON CURRENCY AND FINANCE,R.B.I.
2)NATIONAL ACCOUNTS STATISTICS,GOVERNMENT OF INDIA.

Table 16

Effective rate of return on selective instruments‡

Details of Instruments	Instruments	National Savings Certificates VI	National Savings Certificates VIII	National Savings Scheme	Post office Monthly Income Scheme	Indira Vikas Patra	Kisan Vikas Patra	Public Provident Fund	Bank Fixed Deposits	Public Sector Bonds	Public Sector Bonds	Relief Bonds	Monthly Income Unit Scheme (UTI)
Nominal Rate of interest (%)		11	12	11	12			12	10	9	13	9	12
Compound rate of interest (%)		11.30	12.39		-	14.87	13.43		10.38	-	-		
Compounded		Six months	Six months	Annualy				Annual	Monthly				
Concessions		80(C),80(L)	80(C)	80 CCA	80(L)	-	-	80(C)Sec.10	80(L)	Sec.10	80(L)		80(L)
Other details				Interest is free of Income tax in year of account	10 % on Maturity							Interest I.T. free	2 % on maturity‡‡ + Bonus
Duration (years)		6	6	3	6	5	5.5	15	2 years & above	-		5	5
Income Tax Brackets (Rs)	Marginal Rate of I.T.(%)												
10,000-25,000	20	a) 16.50 b) 15.81 c) 14.76	a) 14.69 b) 13.41 c) 13.19	11.00	15.00	14.87	13.43	a) 17.50 b) 15.61 c) 15.28	12.98	11.25	16.25	11.25	15.00
25,000-50,000	30	a) 20.74 b) 17.72 c) 17.24	a) 16.35 b) 14.01 c) 13.62	11.00	17.14	14.87	13.43	a) 22.75 b) 18.81 c) 18.18	14.83	12.86	18.57	12.86	17.14
50,000-1 Lakh	43.2 *	a) 30.81 b) 22.95 c) 21.88	a) 19.44 b) 14.93 c) 14.31	11.00	21.13	14.87	13.43	a) 34.36 b) 25.81 c) 23.73	18.27	15.85	22.90	15.85	21.13
Above 1 Lakh	54.0 *	a) 44.81 b) 29.36 c) 28.81	a) 23.31 b) 18.60 c) 17.51	11.00	26.09	14.87	13.43	a) 52.09 b) 33.04 c) 38.79	22.56	19.57	28.26	19.57	26.09

‡ This statement does not take into consideration the initial fiscal concessions enjoyed by various instruments underc.80(G).

* Including surcharge of 8 per cent on Income Tax.

‡‡ Excludes this benefit in the effective rate.

Note: Cases (a), (b) and (c) refer to cases where the 80(C) reductions from the income are [illegible] 30 per cent; 50 per cent and [illegible] per cent respectively.