

**PUBLIC DEBT OF SELECTED STATES:
A COMPARATIVE ANALYSIS**

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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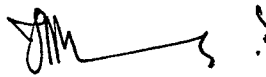
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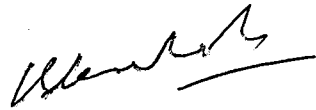
I hereby affirm that the research for this dissertation titled "Public Debt of Selected States: A Comparative Analysis" being submitted to Jawaharlal Nehru University for the award of the Degree of Master of Philosophy in Applied Economics, was carried out entirely by me at the Centre for Development Studies, Thiruvananthapuram.

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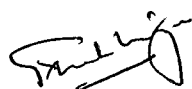
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CHAPTER I

INTRODUCTION

Orthodox theory of Public Finance advocated the principle of balanced budget and public borrowing found no significant place in it. The idea of compensatory finance and the role of public borrowing assumed importance after the great depression of 1930s. Keynesian idea of increase in public investment to increase effective demand strongly supported government borrowing to make funds available for investment as well as for consumption purposes. Over the years with the increasing role of the government in economic activities, the importance of public borrowing also increased. It has emerged as one of the major instruments of fiscal policy.

In the context of the developing countries, one of the major hindrances to the process of development is the grossly inadequate social and economic infrastructure. Considerable investment is called for in infrastructure. Also most, if not all, of this infrastructure investment has to be undertaken by government. Apart from the conventional revenue sources like taxes, fees etc. government mobilise resources through public borrowing to finance large scale government investment.

Public borrowing in India has played a major role in financing of government expenditure at central as well as in the state level. Consequently, public debt in India has increased to a significant extent particularly in the recent past. The problem of debt management has been an issue discussed among the economists time to

time. However, the literature on public debt in India focussed mainly in the context of the central government even though over more than one third of the currently outstanding combined public debt is owed by the state governments. Mounting public debt of the state governments and its effect on state finances is an issue which has not received sufficient attention except in the context of centre-state financial relations. In the face of huge expenditure responsibilities, revenues accruing to the states in the form of non-debt creating central transfers and state's own revenues have become increasingly insufficient and the gap between the financial needs and revenues earned by a state is met through borrowings. Borrowing has become the bridge to cover the gap between the expenditure needs and available resources of the states. Increasing resort to borrowing has resulted in an enormous increase in the debt of the state governments. Servicing of these debt has created serious strain on state finances. In this analysis, we attempt to probe into state's indebtedness and its implications. A comparative analysis of the debt situation among a few selected states, an investigation of the factors behind their growth of debt and the burden of their growing indebtedness are the major issues to be investigated. The issue of sustainability of the state's indebtedness is also addressed. The question of sustainability of debt assumes importance even at the state level because like national government, sub-national governments at the state level also have to meet their debt servicing obligations. If the debt servicing obligation rises, then that would always reduce the availability of funds for other expenditures which will hamper the growth of state income, unless the state government is able to mobilise additional revenues to meet debt servicing obligation.

Theoretical Framework of the Study

Theoretically, financing a part of the total government expenditure through borrowing may at times, be preferred to tax financing. A rise in taxes beyond certain limits may not be considered politically feasible. Also heavy taxation affects adversely the incentive to work and invest and thereby hampers economic growth. Public borrowing as an instrument of finance, given its voluntary character, is free from these kinds of limitations. But public borrowing has a serious limitation in the sense that unlike tax revenue, funds raised through borrowing have to be repaid along with interest. In fact interest payment starts after one year of borrowing. On the other hand funds raised through taxation do not have to be repaid and therefore create no liability for the future. That is why one often hears discussion of the burden of public debt in academic and non-academic circle.

The principal source of concern with respect to public debt is the pressure of debt servicing which builds up only when the interest outgo to government receipts mounts. Public borrowing should not however, be a problem as long as government revenue expands and the ratio of the interest outgo to government revenues declines or remains within a manageable limit. If the reverse happens, then the ratio of the interest outgo to government revenue will rise continuously leading to large scale outflow of resources on account of interest payment, which will hamper government's ability to incur non-interest expenditures.

In the context of state finances, this is important because the more a government is obliged to reduce its non-interest expenditure, most of which is incurred on development, given the centre-state distribution of functions under the Indian Constitution, the greater is the likelihood of a slow down in the state's economic growth and consequently in the growth of the state government's revenue mobilisation. So a sort of vicious circle can be set in motion whereby the ratio of the state government's interest payments to revenue receipts becomes larger. If this trend continues a state will have to borrow more to meet its debt servicing obligation, and borrowing undertaken to meet such an obligation adds on to the state's debt without adding to its debt servicing capacity. A state's debt servicing capacity can improve only if the amount borrowed by a government is used for purposes of investment, be it social or economic investment. A recent RBI Study has shown that during 1980-81 to 1993-94, ratio of interest payment to revenue receipts increased from 7.5 percent to 16.8 percent which inflicted severe pressure in developmental expenditure of the states¹.

How does one tackle the strain on state finances emanating from the increasing ratio of interest outgo to government receipts? Is it to be achieved through targetting of the gap between a state government's total expenditure and its revenue receipts (fiscal deficit) and thereby reducing total borrowing at the state level? Of course, the gap can be reduced, and even eliminated by either reducing expenditures or increased revenue mobilisation. However, containing fiscal deficit through the reduction in public borrowing

¹ Pattnaik et al. (1994).

implies the shifting of the accent of fiscal policy from mobilisation of revenues to blanket reduction of government spending². It could have harmful effects. Across the board reduction in government expenditure will ultimately make the economy weaker and prove to be counter-productive in the long run reducing the state's income and revenue. A decline in the rate of growth of state domestic product (SDP) will result in a greater than proportionate fall in the ratio of the revenue receipts to the state income and this will make the burden of debt servicing heavier instead of reducing it. Thus the real solution to the whole problem is not the reduction in the absolute volume of debt or even the prevention of its further growth. The real solution lies in adopting such expenditure policies as a result of which the income of the state increases with the sufficient expansion of state's revenue.

In a federal set up, revenue expansion of a state gets influenced considerably by the resource transfers from the centre. Thus the problem of debt management at the state level is not totally within a state's own control. When a state's own revenue expands sufficiently, but the share of non-debt creating resource transfer from the centre declines, the growth in the total revenue receipts of the state government may be far less than desired. In such a situation, despite a state's better revenue earning, the total revenue earning of the state may even decline because of the inadequate central transfers and the ratio of the interest outgo on its outstanding debt to total revenue receipts may mount. Also, the increasing share of debt-creating central transfers in the

² Gulati (1993).

total transfers will increase a state's debt servicing obligation. It will further increase the ratio of interest outgo to state's revenues.

The interest outgo as a proportion of a government's revenues would not however, reflect the accurate intensity of the debt burden if it does not take into account the direct returns from government investment financed out of borrowing. The ratio of the gross interest burden to government receipts would overstate the burden debt imposes. The ratio of the net interest burden to government receipts would however be a better measure of a state's current debt burden. For this purpose, net interest burden is taken as the difference between gross interest payable on the one hand and interest receipts plus dividends and profits on the other hand. Returns from government investment in the form of interest receipts, dividends and profit will go directly towards reducing the ratio of net interest outgo to government receipts.

The Table 1.1 shows the gross and net interest payment obligation of different Indian states during 1992-93. It reveals that how recoveries in the form of interest receipts plus dividends and profit during 1992-93 reduced the net interest payment obligations across the states. If net interest payment obligation decreases due to the better recovery in the form of interest receipts plus dividends and profit the ratio of the net outgo on account of interest payment to government receipts declines. If the recoveries do not improve, the net burden will be almost as high as the gross burden. As can be seen from the Table 1.1, in Andhra Pradesh net interest payment as a percentage of gross is only 30.33

percent, whereas in Bihar, the same ratio is 99.41 percent. A high net interest burden will definitely result in higher ratio of net outgo on account of interest payment to revenue receipts.

Table 1.1: Gross and Net Interest Payment during 1992-93
(Rs. in Lakhs)

	GIP	IR	DIV & PFT.	NIP	NIP as a percentage of GIP
ANDHRA PRADESH	82993	57790	28	25175	30.33
BIHAR	124057	723	15	123319	99.41
GUJRAT	92883	43837	5676	43370	46.69
HARIYANA	34331	9509	85	24737	72.05
KARNATAKA	59371	35694	328	23349	39.33
KERALA	54251	2310	386	51555	95.03
MADHYA PRADESH	74149	34187	298	39664	53.49
MAHARASTRA	133683	82800	560	50323	37.64
ORISSA	54216	5826	116	48274	89.04
PUNJAB	41061	7130	559	33372	81.27
RAJASTHAN	74278	49693	219	24366	32.80
TAMIL NADU	68847	21119	1769	45959	66.76
UTTAR PRADESH	204159	31771	279	172109	84.30
WEST BENGAL	96618	4444	78	92096	95.32

Note: GIP indicates Gross Interest Payment, IR indicates Interest Receipts, NIP indicates Net Interest Payment, DIV.& Profit indicates Dividends and Profits.

Source: RBI Bulletin, Finances of State Governments (various issues).

From the above discussion it can be said that at the state level, debt becomes a problem mainly under three circumstances: firstly, when state's own revenues do not expand sufficiently; secondly, when the share of non-debt creating central transfers in total resource transfer decreases and finally, when the net interest payment increases. The first and second problem are the problems of revenue expansion. A state's revenues expand either in consequences of the growth of its economic activity which reflects itself in SDP or as a result of additional revenue effort. The third problem is the problem connected with the investment of borrowed government funds in activities yielding adequate returns

which when set off against gross interest liabilities reduce the net interest burden. Increase in interest receipts plus dividends and profit of the state government not only reduces the net interest payment obligation, it enhances total revenue earning of the state through better non-tax revenue earning.

The issue of sustainability of debt at the state level has to be looked not in terms of the growing fiscal deficit and debt but with reference to the performance of a state in regard to its total revenue expansion in comparison to its increasing interest liabilities.

State-wise Debt Burden

In order to examine the problem of state indebtedness among few major states in India during 1980-81 to 1992-93, an assessment of debt burden among 14 major states has been done on the basis of a specified indicator, namely the percentage of net interest outgo to revenue receipts³. The percentage of net interest outgo to revenue receipts of fourteen major states in India have been compared to the all India average of the same and ranking of states has been done in increasing order of the percentage.

The Table 1.2 shows that during 1980-81 to 1992-93, among the fourteen major states in India, the ratio of the net interest outgo

³ The net interest burden is calculated after netting out interest receipts, dividends and profits not only from the numerator 'gross interest payment', but also from the denominator 'total revenue receipts' to understand the accurate intensity of the debt burden. Total revenue receipts minus interest receipts plus dividends and profits can be termed as net revenue receipts by the state.

to net revenue receipts was the lowest in Andhra Pradesh and the same ratio is highest in Orissa. The state in the neighbourhood of

Table 1.2: Net Interest Payment as a Percentage of Revenue Receipts during 1980-81 to 1992-93

States	Share
ANDHRA PRADESH	0.53
PUNJAB	2.08
MAHARASTRA	2.60
KARNATAKA	2.76
GUJRAT	3.61
TAMIL NADU	4.21
HARIYANA	5.52
MADHYA PRADESH	6.49
ALL STATE AVERAGE	6.97
RAJASTHAN	8.56
UTTAR PRADESH	10.60
KERALA	11.84
WEST BENGAL	13.62
BIHAR	14.57
ORISSA	15.03

Source: Same as in Table 1.1.

all India average was Madhya Pradesh. The situation was pretty severe in Bihar, West Bengal, Kerala and Uttar Pradesh. During 1980-81 to 1992-93, in all these states more than 10 percent of the net revenue receipts had been paid for interest payment.

Selection of States

For this study four out of fourteen major states in India have been selected. These states are Maharashtra, Tamil Nadu, Kerala and West Bengal. As can be seen from Table-1.2, during 1980-81 to 1992-93, the percentage of net interest outgo to revenue receipts of all states together is 6.97 percent. Among these four states, the states having above average ratio of interest outgo to government receipts are West Bengal (13.62) and Kerala (11.84) and states having lower ratio on account of net interest payment to net

revenue receipts are Maharashtra (2.60) and Tamil Nadu (4.21). In a comparative frame work, relative debt situation of four states will be examined in order to understand the problem of debt management in Kerala and West Bengal, vis-a-vis relative success of debt management in Maharashtra and Tamil Nadu.

Objectives and Scheme of the Study

The study probes the subject of state indebtedness on the following lines:

1. While doing the comparative analysis we will look into the changing share of different components of state debt from 1980-81 to 1992-93. The changing composition of state debt and its movement has its own impact on the state economy in terms of maturity pattern and interest payment. Though 'Loans and Advances from the Central Government' constitutes the major share in the total debt of the states, the shift towards high cost market borrowing is a recent phenomenon for most of the states. This shift towards high cost market borrowing has resulted in increased debt burden since market loans are high interest bearing with short maturity period. Therefore, analysis of the composition of state debt needs special attention in order to get an answer to the across the state difference in gross interest payment obligation.
2. Trends in gross and net central loans to states are examined along with relative importance of loan transfer in total resource transfer to the states and the effect of reverse flow of funds on account of debt servicing to the total devolution of resources from the centre to the states.
3. A comparative analysis of debt burden on the basis of some selected state level macro indicators is also attempted.
4. An investigation of the factors behind the rapid growth of public debt of state governments is undertaken.
5. Finally the question of sustainability is addressed on the basis of the theoretical frame work with course of the study.

The scheme of the study is organised in the following manner: Chapter II will review different views on public debt in general and take particular note of the public debt of state governments. Chapter III will analyse the trend and composition of states' public debt during the eighties, followed by an analysis of debt

burden. A separate section has been devoted to the analysis of central loans to the states. In the fourth chapter, an attempt has been made to analyse the expenditure pattern of the state governments and how different components of expenditure influenced the borrowing of the state government. The fifth chapter discusses factors behind the growing revenue deficit of the states. Chapter six discusses the issue of sustainability of public debt of state governments. Chapter seven sums up the conclusion of the study.

Data Source

Our exercise is based on secondary data derived from various sources. The main data sources are 'RBI Bulletin, Finances of State Governments (various issues)', 'RBI Report on Currency and Finance (various issues)'. Some issues of the 'Finance Account Report (Union Government)' are also used. The study covers a thirteen year period from 1980-81 to 1992-93.

CHAPTER II

VIEWS ON PUBLIC DEBT

A Survey of Empirical Literature on State Indebtedness

Introduction

Over the years, views on public debt have undergone significant changes. Public borrowing and the related controversy of 'debt burden' is an issue widely debated among the economists. In this chapter an attempt has been made to delineate the wide ranging views on public debt and debt burden. The chapter consists of two sections: the first deals with theoretical views on public debt and the second reviews some empirical findings relating to state's public debt.

Classical View on Public Debt

Classical philosophy of maximisation of social welfare through private profit maximisation did not envisage state intervention in economic activities. Restricted role of state in economic activities gave little room for public borrowing. Adam Smith considered public expenditure as unproductive and wasteful and did not approve public borrowing. Smith argued that government, like a private individual, will eventually default on its loans with rising debt. According to him government borrowing encourages profligacy and waste during peace and leads to reckless waging of war. Major evils of debt cited by Smith are higher taxation and inflation which weaken productive capacity of people leading to the destruction of even wealthy nations.

David Ricardo also gave preference to taxes over loans as public borrowing absorbs fund from the productive capital of the nation¹. To him 'distress of industry generally was due to the want of capital absorbed by the debt'². Say's view on public debt was similar to that of Smith and Ricardo to the extent that he too believed that a government borrows for the purpose of barren consumption and expenditure. But he observed some merits of public borrowing: firstly, loans would enable the state to apportion the burden entailed by sudden emergency among a great number successive years and secondly, there could be certain inevitability of resorting to loans under circumstances as when the expenditure must be doubled to save the nation from ruin. Say also observed that public borrowing provided an outlet for capital which would have not been invested otherwise.

Mill deviated marginally from the classical approach and argued that public debt was not a burden in all circumstances. It becomes a burden when interest rate rises. Being an advocate of Wage Fund Theory, he believed that public borrowing is acceptable only when it is provided from the additional savings because 'if it is not met out of the additional savings it will be withdrawn from the *Wage Fund* and thus it will affect adversely the living condition and the efficiency of the workers'³.

¹ Ricardo's view, as cited in Lal (1978).

² As cited in Lal (1978).

³ Mill's view, as cited in Lal (1978).

Among the classical economists Malthus was an exception relating to views on public debt. According to him public borrowing augmented production in the economy and also avoided glut in the market and 'the national debt is not the evil which it is generally supposed to be. Those who live on the interest from the national debt, like statesman, soldiers, and sailors contribute powerfully to distribution and demand..... they ensure that effective consumption which is necessary to give the proper stimulus to production..... Therefore debt once created is not a great evil.'⁴

The general classical view that government expenditure is unproductive underwent changes from the latter half of the 19th century. Economists like H.C.Adams and C.F. Bastable took a liberal view on public debt and rejected the idea of burden of debt being shifted to the future generation. Bastable argued that by creation of public debt rather than taxing, the burden was carried forward in time and that the analogy between private and public debt was quite right.⁵

Modern View on Public Debt

Modern justification of public debt emerges with John Maynard Keynes. In his General Theory, Keynes expressed ideas which justified deficit financing. Keynesian revolution paved the way for the development of the modern theory of public debt. To quote Harris (1947), 'once the economists, in a realistic mood, allowed

⁴ Malthus's view, as cited in Lal (1978).

⁵ Bastable (1895), as cited in Buchanan (1958).

for unemployment, assumed elasticity in monetary supplies and argued that government expenditure could be productive and need not necessarily be wasteful, the case for public borrowing is strengthened'. Moulton (1943) believed that public debt was a national asset rather than liability and that was essential for the economic prosperity of the country. Learner (1947) draw a distinction between international debt and national debt. 'International loan yields the borrower a real benefit' in the sense that it 'enables him to consume or invest more than he is earning or producing.' Of course, 'when he pays interest or repays the loan he must tighten his belt, reducing his consumption and his investment'. In the case of national debt, Learner (1947) argued, 'we have neither the benefit nor the burden. The belt cannot be let out when borrowing and need not be tightened when repaying'.

Pigou's (1949) view on public debt focused on the shifting of the burden of internal debt. Pigou reflects the view that 'cost of any thing paid for out of loans fall on the future generation while the cost met out of taxes are born by the present generation; though 25 years ago this idea could claim respectable support, it is now every where acknowledged to be fallacious....'⁶

The idea of no-burden and the view that primary real burden cannot be shifted to the future generation put forward by followers of Keynes like Learner, Hansen, Pigou and others remained unchallengeable till late 1950s. But Buchanan (1958 a) challenged the validity of Pigou's thesis that the public debt imposed no

⁶ Pigou (1949).

burden on the future generation. He drew a distinction between tax payers on the one hand and bondholders on the other to study the burden of public debt. As Buchanan (1958 a) argued that 'the tax payer in period t_0 ' does not sacrifice any thing since he had paid no tax for the wasteful project. The burden must set on the tax payer in future time periods and no one else. He now must reduce his real income to transfer funds to the bond holder, and he has no productive asset in the form of a public project to offset his genuine sacrifice. Thus, the tax payer in the future time periods, that is the future generation bears the full primary burden of the public debt.' In this direction the study further explained, 'if the debt is created for productive public expenditure, the benefits to future tax payer must of course be compared with the burden so that, on balance, we may suffer a net benefit or a net burden. But a normal procedure is to separate the burden against the benefit, and thus future tax payer is the only one to whom such burden may be attributed'.

While accepting the analogy between private and public debt Buchanan (1960) argued that 'borrowing takes the place of "earning" additional revenue through taxation for governments. Borrowing in either case is a means of securing additional current purchasing power without undergoing supplementary current cost. The cost of expenditure currently undertaken are effectively shifted to future time periods. In such future periods creditor hold a primary claim against the revenue or income of either the individual or the government'. Buchanan's (1958 b) third proposition was that the external debt and internal debt are fundamentally of the same character. He argued that in both the cases, the purchase of

government securities voluntarily give up command over current usage of resources in exchange for a return in future period.

Buchanan's thesis has been criticised by Bowen-Davis-Kopf (1960) (hereafter BDK). They define burden in two ways: non transferable and transferable. If the real burden of public borrowing is defined as the total amount of consumption given up at the point of time the borrowed funds are spent, the cost of the public project simply must be borne by the generation alive at the time the borrowing occurs. On the other hand, BDK (1960) argue, 'if the real burden of a debt to a generation is defined as the total consumption or private goods foregone during the life time of that generation as a consequences of public borrowing and attendant public spending, it may be argued that burden may be shifted to the future generation'.

Outstanding contribution on the debate by Domar (1944) has enriched the literature on debt burden. He discussed the role of public borrowing in a wider perspective. Accepting the validity of the argument that debt entails burden, Domar's approach to keep it within a manageable limit is an outstanding one. He emphasised the need for public investment and the financing of such investment through public borrowing should not be a problem if the national income grows which confines the 'debt burden' within a manageable limit. Domar's view on public debt has been extensively reviewed in a later chapter.

Literature on Public Debt in India

In Indian context, literature on public debt mainly focuses on the rising public debt of the central government. An earlier study on public debt in India has shown that national debt in India has grown enormously since 1956 and became a major factor influencing the monetary and fiscal policy⁷. Mishra (1985) argued that phenomenal growth of public debt only reflects the use of debt as an instrument of resource mobilisation for planned economic development and the cost of debt servicing should not be a matter of fiscal constraint when it is seen in rational perspective of debt management. But the post mid-eighties literature expressed serious concern about the growing volume debt and debt servicing costs.

Recent literature (Seshan, 1987; Rangarajan, Basu and Jadav, 1989; and Chelliah, 1991) on public debt of central government dealt at length with the question of sustainability of the debt, which is critically reviewed in a later chapter. Gulati (1993), while commenting on the sustainability of public debt, maintained that 'if we are worried about the burden of growing public debt, the thing to do for the policy makers is not to stop or reduce public borrowing but to review the existing allocation of governmental expenditures and make sure that the maximum possible proportion of these expenditures is incurred in areas and in a manner that contributes, of course optimally, to the growth of national income.' Lakdawala (1990) pointed out that if present debt situation is allowed to persist will through a grave burden on the

⁷ Ghuge (1977).

treasury and an intolerable monetary deficit. As a corrective measures he suggested the reduction in revenue account deficits which contributed to the two-fifth of the gross fiscal deficit during the seventh plan. Apart from this he suggested for cost effectiveness and productive use of capital expenditure and increase in profitability of public sector enterprises so that net interest charges decline by better post-tax net returns on capital invested. According to Ghosh (1988), rapid increase in public debt and the burden of interest charges has become a major hindrance in the process of orderly implementation of development planning, not only in the public sector but also in the private sector.

However, our interests centre around the literature on the public debt of state governments. Problem of state indebtedness was mainly studied by different finance commissions in particular reference to the respective state's indebtedness to the centre which has accounted for more than 70 percent of the total debt of the state government. Approaches of different finance commission on the growing indebtedness of state governments are discussed below.

Second Finance Commission

The Second Finance Commission was the first to be asked to look into the problem of state indebtedness in view of the rising central loans to the states. Between 1947 and March 31, 1956, central loans to states increased from Rs. 43.97 crores to Rs. 900 crores. The commission was asked to examine 'the modifications if any in the rate of interest and the terms of repayment of the loans made to various states by the government of India between 15th

August 1947 to 31st day of March 1956⁸. The commission noted that there existed a large number of loans with various interest structure and terms of repayment. Commenting on the interest rate structure the commission maintained that 'the policy of giving loans interest free or at concessional rate of interest is open to objection. Because such a concession conveys wrong impression about the interest burden which has to be met'⁹. But if concession in interest payment had to be given that should take the form of direct subsidy and not through reduction in interest rates. As an attempt to rationalise the interest rate structure, the commission suggested only two rates of interest, 3 percent and 2.5 percent and recommended fixing interest rate at 2.5 percent for outstanding loans carrying interest rate below 3 percent.

Third Finance Commission

Though Third Finance Commission was not specifically asked to look into the problem of state indebtedness, commission as a part of general observations noticed that mounting interest liabilities for the state governments arising out of loans is eating up a substantial portion of the current revenue. To quote: 'The position will worsen in the foreseeable future. As our devolution must take account of the revenue gaps, partly attributable to interest charges. We consider that it would not be out of place if we were to give our appreciation of the position'¹⁰.

⁸ Second Finance Commission Report (1956).

⁹ Ibid.

¹⁰ Third Finance Commission Report (1961).

Fourth Finance Commission

The Fourth Finance Commission was asked to assess the assistance required by the states for servicing of their debt. The commission was requested to examine the scope of 'creation of a fund out of the excess, if any, over a limit to be specified by the commission of the net proceeds of the estate duty on property other than agricultural land accruing to the states in any financial year for the payment of states debt to the Union Government'¹¹. The commission recommended that both interest charges and amortisation should be treated as items of revenue expenditure for the purpose of working out budgetary gaps in order to recommend grants in aid under article 275(1). The commission rejected the idea of creation of sinking fund because in the face of huge debt servicing obligation, the sinking fund created out of 'net proceeds of estate duty on property other than agricultural land' will prove to be inadequate. While the commission concluded the case for debt readjustment, it also recommended an overall assessment of the system of intergovernmental debt operation in India by an expert body before taking any measure to the solution of growing debt of the state government.

Fifth Finance Commission

The reference to the Fifth Finance Commission was particularly to look into the problem of the unauthorised overdrafts of the states from the RBI and suitable measures to discourage resorts to unauthorised overdrafts. The commission felt that the basic problem was caused by chronic imbalance between resources available to the states and their responsibilities under the constitution.

¹¹ For

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lon Report (1965).

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Secondly, manipulation of taxes by the central government in its favour have compounded the problem of resource inadequacy of the states. As a result of that states resorted to unauthorised overdrafts to meet their plan expenditure and increasing burden of central loans. The remedial measures suggested by the commission to deal with the problem of overdrafts are:

(a) RBI should issue notice to the States having problem of overdrafts and dishonour their cheque;

(b) RBI should bring this to the notice of the Union government and Union government should clear the over drafts;

(c) If despite these measures, the state governments continue to overdraw from the RBI, the commission recommended that central government should invoke constitutional provision to keep the solvency of the concerned state.

These above three measures were, however, not accepted by the central government. But the central government took over a certain percentage of outstanding overdrafts in 1972-73 and 1973-74 through special medium term loans to the state governments which minimised the problem of unauthorised overdrafts in the short run.

Sixth Finance Commission

The reference frame to the Sixth Finance Commission was a much broader one. It was asked to estimate the non plan capital gap of individual states and suggest debt adjustment on the basis of the estimated non-plan capital gap. The commission estimated that nineteen out of twenty one states have non-plan capital gaps and recommended adjustments through (i) consolidation of some loans into uniform types, (ii) extension of the period of repayment of some loans, (iii) moratorium on the repayment of some loans and

(iv) writing off some loans. The commission did not however recommend substantial debt cancellation on the ground that it would reduce central resources for further assistance to the states.

Seventh Finance Commission

The Seventh Finance Commission followed the approach taken by Sixth Finance Commission on debt cancellation. It recommended measures linking the repayment period suitably with the purpose for which central loan have been used by the states (both for non-productive and productive purposes) with the hope that such measures will have greater acceptability in all quarters and would not be questioned as arbitrary. The relief recommended by Seventh Finance Commission for the five year period (1979-84) was in the order of Rs. 2,155.50 crores. The benefits that states enjoyed on recommendations of the Sixth and Seventh Finance Commission, of course, reduced the total volume of debt by Rs. 4125.12 crores.

Eighth Finance Commission

The Eighth Finance Commission was asked for an assessment of the non-plan capital gap of the state like sixth and seventh finance commission and remedial measures to reduce the gap. The commission pointed out that growing expenditure needs and insufficient revenue resources with the states made them heavily dependent on centre to finance their revenue expenditure. In such circumstances, there might be no alternative for the states to finance developmental expenditure without resorting to borrowing. The commission's liberal approach to the to the increasing indebtedness of the states is summed up as in Eighth Finance Commission Report (1984):

'We see nothing basically wrong in the growth of public debt. With the expanding public functions, no government, particularly in developing economy, can undertake large scale programmes of development without recourse of borrowing. We think, however, that it is but right that the borrowed funds should be used for productive purposes and not for consumption. Investment financed by borrowed funds, need not be strictly productive in commercial sense, but, they should sub serve a genuine public purpose'.

The commission pointed out in this context that investment in social services are as desirable as in productive assets. Thus while commission viewed the role of public borrowing in its right perspective it was still opposed to the idea of writing off loans on the ground that it would reduce the resources available for recycling from the centre to the state. According to the commission, the disturbing aspect of centre-state financial relation was not the indebtedness of the state to the centre. The major hindrance in the development of sound financial relation between centre and states was the increasing overdrafts of the state governments. They strongly objected the use of overdraft as a temporary solution to the problem of resource inadequacy of the states.

Ninth Finance Commission

The Ninth Finance Commission adopted a different approach from that of the last three commissions. Reviewing the debt position of the states, the commission suggested both short term and long term solutions. The commission strongly opposed the use of borrowed funds for revenue expenditure. According to the commission, growth in the indebtedness of the states should not be of much concern if investment yields adequate returns to cover interest payment and

amortization¹². Thus the commission took the view that borrowing by the states should be only for those projects which were of self liquidating in nature..

A recent study by a group of RBI economists, while analysing the resource gap of the state governments, commented on growing state indebtedness. The study points to '.... the persistence of large revenue deficit and pre-emption of high cost borrowed funds to finance such deficits. This trend, in turn has resulted in increased borrowing leading to high level of debt which is seemingly unsustainable'¹³. It has been argued by the study group that given the fiscal constraint of the central government in the context of stabilisation programme, state governments have to finance their expenditure with reduced reliance on resource transfer. Although centre-state financial relation in India is guided by the federal constitutional arrangements, it cannot be overlooked that approximately two thirds of the total resource transfers are non-mandatory in nature. Therefore, the warning by the RBI group that the state should reckon with reduced resource transfer appears to be quite in order. As regards the question of sustainability of debt, one has to look at various interlinkages which actually determines the debt servicing obligations such as the direct returns from government investment financed out of borrowing, increase in tax revenue and the growth in state domestic product.

¹² Second Report of the Ninth Finance Commission (1990).

¹³ Pattnaik (1994).

One major work relating to the problem of indebtedness of the states to the centre is of Thimmaiah (1977). The study found that while central loans for developmental purposes had increased in absolute terms, loans for non developmental purposes had been increasing in relative terms. Financially non productive use of loans, he observed, increased the burden further. The study, in light of the findings, suggested a composite solution to the problem of state debt. His short term measures included debt adjustment in the form of writing off certain loans extended for socially and financially unproductive purposes. The long term recommendation emerging out of the study was for rescheduling of existing loans by extending period of repayment to 20 to 30 years respectively for medium and long term loans.

Among the earlier writers on the subject of state debt was Santhanam (1966), who suggested the creation of a State Development Bank purely on business purposes to channelise all future loans for productive purposes, writing off a part of existing loans and allowing the states to borrow from the market to meet their unproductive expenditure. Rao (1973) suggested that, instead of a bank specialising in giving loans to the states, the establishment of National Loan Organisation (NLO) to handle the central loans to the states for productive purposes and giving freedom to the states to borrow from the 'open market' for financially non productive purposes. The suggestion that the states should go to the open market for raising loans required for financially non-productive purposes is perhaps intended to deter the states from tapping such public source on the assumption that market borrowing will be on stiffer terms. On the other hand, the suggestion is open to the

objections that the states may still feel compelled to borrow on the stiffer terms if the pressure on them to meet certain expenditure commitments is very strong and they cannot cover these commitments by raising additional tax revenues.

Summary

The major findings which emerge from the above review of empirical literature are the following:

1. The loan component of the central transfers to the states is rising very sharply since Independence.

2. The rising interest burden of central loans and its repayment have increasingly resulted in some cases a net reverse flow of borrowed funds from the states to centre.

3. A principal cause of states' heavy indebtedness to the centre lies in the inadequate revenue resources in the hands of the states compared to their expenditure responsibilities.

4. Increasingly, states have been borrowing from the Centre to finance their revenue account deficits or for unproductive purposes. Also, their returns from so called productive investment have not been enough to cover debt servicing.

5. The solutions suggested, whether for short or long term, may have eased the problem somewhat, but it has persisted.

6. While the task of the different Finance Commissions was to review only the states' indebtedness to the centre and make recommendations in that regard, the problem of the states' debt is a larger one. The states also borrow from other sources like the market, provident funds etc..

Since the problem of states' indebtedness has not only persisted but became even worse over the years despite all attempts so far, the need to study the problem continues. The present study which concentrates on a few selected states can be considered as a contribution to meet this need. The approach adopted for our study is to deal with the question of states' debt and its burden in their totality taking due note of the various variables that go to determine the ability of the different states to cope with the burden which public debt entails.

CHAPTER III

TREND, COMPOSITION AND THE BURDEN OF STATES' PUBLIC DEBT The Cases of Kerala, Maharashtra, Tamil Nadu and West Bengal

Introduction

It is noted in the introductory chapter that public borrowing has become one of the major instruments of financing the budgetary needs of state governments. According to Article 293(1) of the Constitution, state governments may incur public debt from the Central government, Reserve Bank of India and other Financial Institutions and General Public within the country on the security of the consolidated fund of respective state governments. However, the power of the state governments to borrow is subject to a major limitation. The state governments indebted to the central government need the prior sanction of the latter to borrow additionally. Presently, the state governments have no independent power of borrowing, since outstanding debt owed by the states to the centre not only exists but is growing at a phenomenal pace.

In absolute terms, outstanding debt of the state governments has risen from Rs. 449 crores in March-end, 1952 to Rs. 1,24,277 crores in March-end, 1992. In per-capita terms, state debt shows an increase from Rs. 10.40 in 1952 to Rs. 1468 in 1992. Between March-end, 1981 to March-end, 1993, there has been more than five-fold increase in the absolute volume of outstanding debt. As a proportion of GDP, however the increase in the state indebtedness has not been that sharp. During this period, states' debt as a proportion of GDP increased from 19.81 percent to 22.51 percent.

Still the corresponding incidence of interest charges inflicted severe pressure in state finance. The gross interest payment of all states taken together went up from Rs. 1226 crores in 1980-81 to Rs. 13210.09 crores in 1992-93. As a proportion of revenue receipts it registered an increase from 7.5 percent to 14.7 percent. Increasing debt servicing obligation became a major problem for the state governments. Thus, rising proportion of the total earning are being set aside to meet debt servicing obligations in revenue as well as capital account. In view of the above situation, we have made an attempt in this chapter to make an assessment of the debt position of the states in particular reference to Kerala, Maharashtra, Tamil Nadu and West Bengal. The chapter has two broad sections: the first one makes an assessment of the debt position of the states by examining the trend, composition and the burden of debt and the following section deals with the problem of these states' indebtedness to the centre.

Trend and Composition of State Public Debt

On the basis of the recommendations of the second Report of the 'Team on Reforms in the Structure of Budget and Accounts', State's public debt has been reclassified into three major heads. Under the new classification the major heads of a state's debt are (i) 'Internal Debt', (ii) 'Loans and Advances from the Central Government' and (iii) 'Provident Funds (etc.)'. 'Internal Debt' comprises of minor heads of account such as 'Market Loans', 'Compensation and other bonds', 'Ways and Means Advances from the Reserve Bank of India' and 'Loans from Banks and other Institutions'. The second category of 'Loans and Advances from the Central Government' which form a major part of the state debt, are

granted for plan as well as non-plan purposes. Loans against small savings collections are also included in this category. The transactions recorded under the head of 'Provident Funds (etc.)' include state provident funds, insurance and pension funds, trust and endowments.

The composition of outstanding state debt of all states as shown in Table 3.1, reveals that 'Loans and Advances from the Central Government' is the major component of state debt and by the end of March 1992, it constituted more than 66 percent of the outstanding debt of the states. However, the share of 'Loans and Advances from the Central Government' shows a decline over the years. From 72.71 percent of the total outstanding debt in March-end 1956, the share

Table 3.1: Debt Position of All States and its Composition

(Rs. in crores)

	1956	1966	1976	1986	1990	1991	1992
1. Internal Debt (a+b+c)		1178	2893	8175	15743	18591	22357
	20.66	21.34	21.09	15.18	17.06	17.18	17.99
a. Market Loans and Bonds	257	827	2107	6062	12920	15485	15669
	19.81	14.98	15.36	11.26	14.00	14.31	12.61
b. Ways and Means							
Advances from RBI	10	189	287	267	624	565	718
c. Loans from Banks and Other Institutions		162	499	1846	2634	2541	5970
2. Loans and Advances from Central Government	943	4110	9682	39351	63903	73880	83254
	72.71	74.47	70.58	73.07	69.23	68.26	66.99
3. Provident Funds(etc).	86	231	1142	6331	12654	15757	18666
	6.63	4.19	8.33	11.76	13.71	14.56	15.02
4. Total Debt(1+2+3)	1297	5519	13717	53857	92300	108228	124277

Note: Figures in decimal are percentage shares.

Source: RBI Report on Currency and Finance (various issues).

of Central Loans came down to 66.99 percent in March-end 1992. During the same period, the share of 'Internal Debt' also declined from 20.06 percent to 17.99 percent and that of 'Market loans and Bonds', the major component of 'Internal Debt,' from 19.81 percent to 12.61 percent. But in contrast, the share of 'Provident Fund (etc.)' increased from 4.9 percent to 15.02 percent during this period.

The changes in the composition of debt of the above-mentioned four states for the period March-end, 1981 to March-end, 1993 is shown in Table 3.2. The Table highlights the fact that during this period, the share of 'Loans and Advances from the Central

Table 3.2: Composition of Outstanding Debt in Four States
(Rs. in crores)

	Internal Debt	Loans and Advances From Central Government	Provident Fund(etc.)	Total
KE				
1981	167 (16.6)	660 (65.5)	181 (18.0)	1008
1992	1323 (25.5)	2435 (46.9)	1433 (27.6)	5191
1993	1554 (26.3)	2721 (46.1)	1630 (27.6)	5905
MAH				
1981	371 (17.0)	1497 (68.6)	315 (14.4)	2183
1992	1008 (8.9)	9040 (79.4)	1336 (11.7)	11384
1993	1310 (10.3)	9899 (77.8)	1510 (11.9)	12719
TN				
1981	356 (25.2)	985 (69.6)	74 (5.2)	1415
1992	1677 (25.7)	3932 (60.2)	918 (14.1)	6527
1993	1822 (23.8)	4682 (61.1)	1160 (15.1)	7664
WB				
1981	329 (15.6)	1661 (78.7)	121 (5.7)	2111
1992	1526 (17.0)	6682 (74.6)	751 (8.4)	8959
1993	1728 (17.5)	7281 (73.7)	865 (8.8)	9874
AS				
1981	4443 (18.3)	17320 (71.4)	2491 (10.3)	24254
1992	22357 (18.0)	83254 (66.9)	18666 (15.1)	124277
1993	25781 (18.4)	92412 (65.8)	22236 (15.8)	140429

Note: For full table, refer Appendix 3A. Figures within parentheses are percentage shares. 'KE', 'MAH', 'TN', 'WB' and 'AS' indicate Kerala, Maharashtra, Tamil Nadu, West Bengal and All States respectively.

Source: RBI Report on Currency and Finance (various issues).

Government' declined in Kerala, Tamil Nadu and West Bengal. The share of 'Loans and Advances from the Central Government' in total outstanding debt declined sharply in Kerala from 65.6 percent to 46.1 percent between 1981 and 1993. The share of other two components of state debt such as 'Internal Debt' and 'Provident Fund (etc)' constituted more than 26 percent each of the total outstanding debt of Kerala by the end of March 1993. In Tamil Nadu, the share of 'Loans and Advances from the Central Government' declined from 69.6 percent to 61.1 percent, and the share of 'Internal debt' remained around 25 percent of the total debt through out the period. But there was a significant increase under the head, 'Provident Fund (etc)' in Tamil Nadu from 5.2 percent to 15.1 percent. In West Bengal also the share of 'Loans and Advances from the Central Government' declined but remained at close to 75 percent of the total debt of the state in 1993. 'Internal debt' showed an increase from 15.6 percent to 17.5 percent. The share of 'Provident Fund (etc)' increased from 5.7 percent to 8.8 percent.

In contrast to the general trend of declining 'Loans and Advances from the Central Government', in Maharashtra, the share of central loan increased from 68.6 percent to 77.8 percent during this period. Correspondingly, the share of the state's 'Internal debt' came down sharply from 17 percent to 10.3 percent and the share of 'Provident fund' declined from 14.4 percent to 11.9 percent. The composition of debt of all state taken together show that the share of 'Loans and Advances from the Central Government' is declining and the share of 'Provident Fund (etc)' is increasing. All state average of the share of 'Internal debt' remained almost constant during this period. If we compare individual state's with all

state figures, we see that except Maharashtra, other three states followed the all state pattern in respect to the change in the share of 'Loans and Advances for the Central Government' and 'Provident Fund (etc.)'.

Though at the aggregate level, as shown in Table 3.1, the share of 'Internal debt' and the share of its major component 'Market Loans and Bonds' declined, in some of the states there has been shift towards market borrowing. Market borrowing are high cost in nature and therefore, a shift towards high cost market borrowing is an additional increase in debt burden. As can be seen from the Table 3.3, during 1980-81 to 1992-93, effective rate of interest on 'Market Loans' was always higher than the effective rate of

Table 3.3: Effective Rates of Interest in Various Categories of Debt (per cent)

Year	Market Loans	Loans and Adv. from Central Government	Total Debt
1980-81	5.81	4.99	5.67
1981-82	6.27	5.06	5.94
1982-83	6.01	5.24	6.10
1983-84	6.53	5.08	6.06
1984-85	6.89	5.81	6.53
1985-86	6.91	5.58	6.69
1986-87	8.86	7.21	7.84
1987-88	10.09	7.12	8.08
1988-89	10.02	7.53	8.59
1989-90	10.65	8.08	9.19
1990-91	10.28	8.32	9.47
1991-92	10.34	8.83	10.11
1992-93	11.25	9.31	10.82

Source: RBI Report on Currency and Finance (various issues); RBI Bulletin, Finances of State Governments (various issues).

interest on 'Loans and Advances from the Central Government' and the effective rate of interest on total debt of the states. Though the interest rate paid by the state on central loan is lower than

those paid for its market borrowing or other 'Institutional Finances', the cost of market borrowing to the state is much higher than that for the centre. The interest rate were higher for state government securities though the maturity period of their loans were shorter than those of central government.

Among the four states under evolution, the share of 'Market Loans' in total outstanding debt of Kerala, Tamil Nadu and West Bengal is quite higher than that of Maharashtra. Between March-end, 1981 to March-end, 1992, the share of 'Market Loans' in total outstanding debt increased from 13.24 to 20.92 percent in Kerala and 8.08 to 14.82 percent in West Bengal. During the same period of time, the share of 'Market Loans' remained at an high level of 21 percent in Tamil Nadu. But the opposite scenario is observed in Maharashtra. Compared to other three state market borrowing of Maharashtra is quite low and constituted only 8.44 percent of the total outstanding debt at the end March 1992. This shift towards high cost market borrowing resulted in increased debt burden. In respect of 'Market Loans', recent trends reveal that state governments are borrowing at a higher rate with the shortening of the maturity period and the situation would be worse once the state government switch over to market related borrowing programme¹. To tackle the recent trend of high cost market borrowing and the corresponding incidence of debt servicing obligations, RBI Annual Report of 1992-93 has suggested the establishment of 'State Funding Corporation' which would accumulate funds at the market related rates of interest and provide funds to the states at a fixed rate.

¹ Pattnaik et al. (1994).

The changes in the composition of debt indicates that the different components of states' debt have been growing at different rates (See Table 3.4). During this period, outstanding debt of all states grew at a rate of 15.47 percent per annum. Among the three major components of state debt, 'Provident Funds (etc.)' grew at the highest rate of 19.67 percent per annum. 'Internal debt' of the State and 'Loans and advances from the Central Government' grew at the rate of 16.06 and 14.57 percent per annum respectively. The

Table 3.4: Annual Compound Growth Rate of Different Components of Outstanding Debt during March-end, 1981 to March-end, 1993
(per cent)

States	Internal Debt	Loans and Adv. From Central Government	Provident Fund	Total
KE	20.01	12.60	19.60	15.88
MAH	9.69	17.36	13.07	15.65
TN	14.39	13.80	22.14	14.72
WB	16.45	12.80	17.46	13.68
AS	16.06	14.57	19.67	15.47

Note: The abbreviations of states are as in Table 3.2.
Source: RBI Report on Currency and Finance (various issues).

Table 3.4 also captures the inter-state differences in the pattern of the growth of debt. It is seen that the growth rate of 'Internal Debt' ranged from around 20 percent per annum, in case of Kerala, to less than 10 percent in case of Maharashtra. Similarly, the growth rate of 'Loans and Advances from the Central Government' ranged from 12.6 percent in Kerala to 17.4 percent in Maharashtra. The rate of growth of 'Provident Fund (etc)' was highest in Tamil Nadu (22.14 percent) followed by Kerala (19.60 percent), West Bengal (17.46 percent) and Maharashtra (13.07 percent).

The composition of the 'Loans and Advances from the Central Government' the major component of state debt is shown in Table 3.5. Central government gives loans for both plan and non-plan

Table 3.5: Composition of Loans and Advances from the Central Government (Rs. in crores)

	LNPS	LSPS	LCPS	LCSS	WMA	Pre 1979-80	Pre 1984-85	Total
Kerala								
1981	25.68 (4.8)	110.14 (20.6)	12.32 (2.3)	8.02 (1.5)	0.03 ---	378.15 (70.8)	---	534.34 (100)
1992	769.79 (31.6)	1104.02 (45.3)	17.21 (0.7)	26.92 (1.1)	---	---	517.11 (21.2)	2435.06 (100)
1993	875.56 (32.2)	1310.51 (48.2)	16.52 (0.6)	29.68 (1.1)	---	---	486.35 (17.9)	2718.63 (100)
Maha- rastra								
1981	298.17 (19.9)	535.74 (35.7)	39.82 (2.7)	9.05 (0.6)	0.12 ---	616.52 (41.1)	---	1499.41 (100)
1992	5588.30 (61.8)	1805.92 (20.0)	1.35 (0.0)	42.01 (0.5)	---	---	1599.69 (17.7)	9037.26 (100)
1993	6188.41 (62.5)	2191.60 (22.1)	1.28 (0.0)	52.16 (0.5)	---	---	1463.10 (14.8)	9896.55 (100)
Tamil Nadu								
1981	88.09 (8.9)	487.99 (49.5)	27.09 (2.8)	11.10 (1.1)	0.05 ---	370.62 (37.6)	---	984.94 (100)
1992	1383.07 (35.1)	1849.83 (47.0)	15.19 (0.4)	36.11 (0.9)	---	---	651.74 (16.6)	3935.95 (100)
1993	1770.20 (37.8)	2288.20 (48.9)	15.09 (0.3)	39.95 (0.9)	---	---	567.47 (12.1)	4680.93 (100)
West Bengal								
1981	334.72 (20.1)	185.47 (11.2)	49.14 (3.0)	11.95 (0.7)	0.09 ---	1080.17 (65.0)	---	1661.54 (100)
1992	3829.17 (57.3)	1152.15 (17.2)	3.28 (0.0)	55.37 (0.8)	---	---	1643.35 (24.6)	6683.31 (100)
1993	4297.92 (58.9)	1416.22 (19.4)	2.77 (0.0)	57.03 (0.8)	---	---	1520.64 (20.8)	7294.58 (100)

Note: LNPS=Loans for Non-Plan Scheme.
LSPS=Loans for State Plan Scheme.
LCPS=Loans for Central Plan Scheme.
LCSS=Loans for Centrally Sponsored Schemes.
WMA=Ways and Means Advances.
(Figures within bracket are percentage share)

Source: Finance Account (Union Government)

purposes. Plan loans are given for state plan scheme, central plan scheme and for centrally sponsored schemes. Apart from these loans, non-plan scheme also has a sizeable share in the total 'Loans and Advances from the Central Government'. The data on the composition of the total stock of 'Loans and Advances from the Central Government' shows that for 1980-81, pre 1979-80 loans and advances ranged between 70.8 percent to 37 percent among the four states. The stock of pre-1979-80 loans in Kerala was 70.8 percent of the total outstanding 'Loans and Advances from the Central Government', followed by West Bengal (65.0 percent), Maharashtra (41.1 percent) and Tamil Nadu (37.6) percent. The stock of pre 1984-85 central loans for 1992 and 1993, declined in all the four states. In March-end 1993, pre 1984-85 stock of loans constituted highest among the four states at 20.8 percent in West Bengal, followed by Kerala (17.9 per cent), Maharashtra (14.8 percent) and Tamil Nadu (12.1 percent). Keeping aside the stock of pre 1979-80 and pre 1984-85 loans, the first point that emerges from the Table 3.5 is that central loan for centrally plan scheme and centrally sponsored scheme has always been relatively unimportant. Further, their share has tended to decline during the 1980s with negligible shares at present. Loans for non-plan schemes and loans for state plan schemes constitutes the bulk of the 'Loans and Advances from the Central Government', it is evident from Table 3.5 that the loans for the non-plan scheme tend to rise at a faster rate. The ratio between the two have increased between 1981 and 1993, from 23.31 per cent to 66.81 per cent in Kerala, from 55.66 percent to 282.37 per cent in Maharashtra, from 18.05 percent to 77.36 percent in Tamil Nadu and 180.47 percent to 303.48 percent in West Bengal.

Burden of Debt

A government raises its finances through taxes or borrowing. The question of burden arises in both the cases. The burden of taxation is immediate. The community pays for it at the moment of tax collection. There is no obligation on the part of the government to repay the amount it raises through taxation. Also, it has to be remembered that taxation is compulsory. Even though a government is considered part of the community, the rest of the community does make a sacrifice in having to part with the amounts the government demands by way of taxation. In the case where government decides to borrow instead of taxing, it raises them with a promise to repay them at a future date and that too with interest. So while the rest of the community still part with funds at the time a government borrows, it does so voluntarily and that too on the strength of the governments promise to repay with interest. Parting of with funds when a person lends is not the same as when a person has to part with funds to meet his tax liabilities. Since a government ultimately meets its obligations by raising taxes by deciding to raise part of its required funds through borrowing from which the community (we are deliberately excluding the case of external borrowing by a government) it is only postponing the imposition of taxes to that extent to the future when the rest of the community will have to part with funds to cover not only repayment of principal but also the interest it carries. So the sacrifice or the burden that taxation entails is borne by the rest of the community at the time of repayment of government's debt and its interest charges. It is in this sense we discuss the problem of debt burden.

The primary determinant of the burden is certainly the size of the debt itself. But neither the absolute volume of debt nor the interest payment reveal much about the debt burden. Burden of debt has to be related to the capacity of the state to bear the burden. For this purpose we have to be clear on what measures of capacity to use.

The intensity of the debt burden can be measured as a ratio of the debt to GDP. This ratio is important because it gives an idea of the growth of the state debt in correspondence with the rate of growth of state income. If outstanding debt of the state grows at a higher rate than GDP, debt-GDP ratio will rise and along with that if sufficient expansion of revenue also does not take place, states have to borrow more to pay the incremental interest charges. On the other hand, if debt and GDP grows at the same rate or if GDP grows at a higher rate than debt, debt-GDP ratio will either remain constant or decline. Along with that if the revenue of the state government also expands, incremental interest bill arising out of the additional borrowing by the state can be met through incremental revenues.

From the Table 3.6, it is observed that during 1980-81 to 1992-93, outstanding debt of all states as a percentage of GDP increased from only 19.81 percent 22.38 percent. But contrary to the all state figure, there has been a sharp increase in the debt-GDP ratio of Kerala. For the other three states this ratio has been reasonably stable, with movements within narrow range. Also Kerala's debt-GDP ratio which was high in relation to other three states in 1980-81 became much higher by 1992-93.

Table 3.6: Outstanding Debt to Gross SDP Ratio Across States
(per cent)

Year	KE	MAH	TN	WB	AS
1980-81	24.52	13.14	17.51	22.16	19.81
1981-82	24.67	13.82	16.07	23.99	19.52
1982-83	24.46	15.00	17.62	26.14	20.40
1983-84	26.28	15.04	17.56	25.36	20.30
1984-85	27.86	16.31	16.88	24.12	21.14
1985-86	31.12	16.96	16.23	24.84	22.36
1986-87	29.25	18.56	16.70	24.80	23.32
1987-88	30.02	17.72	16.70	23.57	23.43
1988-89	27.97	16.61	16.96	21.07	22.12
1989-90	30.07	15.85	18.66	21.71	22.52
1990-91	33.74	15.54	17.72	22.43	22.89
1991-92	35.55	16.39	18.25	22.16	22.51
1992-93	43.60	15.14	18.94	21.43	22.38

Note: The abbreviations refer to the names of states as in Table 3.2. For Kerala, the ratio for 1992-93 is computed using net SDP. Source: Data on debt is available from RBI Report on Currency and Finance, SDP data from CSO and data on GDP from Government of India, Economic Survey (various issues).

It is noteworthy from Table 3.6 that for West Bengal, whose ratio of 22.16 percent was the closest to Kerala's 24.52 percent in 1980-81, the gap with Kerala became extremely large in 1992-93. In 1991-92, when the outstanding debt of Kerala was 35.55 percent of SDP, West Bengal's corresponding figure was only 22.16 percent. The decline in debt-SDP ratio of West Bengal is observed from 1983-84 onwards. The debt-SDP ratio of Tamil Nadu varied between 18 to 19 percent. However for Maharashtra, the debt-SDP ratio ranged between 13 percent and 18 percent, but the ratio showed a decline from 1987-88 and by the end of 1992-93 it declined to 15.14 percent, which was the lowest of the four states. The ratio for Kerala should be a matter of concern both because it has reached a high level already and also because the trend appears one of a rise further. In Tamil Nadu and West Bengal, there is a near constancy of debt-SDP ratio with almost the same rate of growth of debt and

SDP. If we compare the movement of debt-SDP ratio of four states with the all state figure, we see that West Bengal followed almost the pattern of all state average. Tamil Nadu's debt-SDP ratio was below the all state average followed by Maharashtra. But Kerala's debt-SDP ratio was substantially higher than the all state figure during this period.

Apart from the debt-SDP ratio, the other way of measuring the debt burden is to observe the liability arising on account of debt. Interest liability has to be met normally from the very next year and provision for that has to be made by a state government in its revenue account. While the ratio of interest payment due on a particular year to the SDP of that year gives an idea of the proportion of SDP necessary for the government to mobilise to meet this particular obligation. Two other ratios are also considered useful in this context. One is the ratio of interest payment to total government expenditure and the other is interest payment to total tax revenue of the state. The first indicates what part of the total expenditure must go to meet the interest liability and this may affect what can be allocated for meeting other obligations of the government. The second indicates how much of the current tax collection is absorbed by interest payment and how much people have to give up in the form of additional taxation to enable the government to pay up the interest charges. Other variants of these two ratios are to relate interest payment to revenue expenditure and revenue receipts, so as to reflect the burden of interest payment on the revenue budget of the state. In the context of Indian states which not only raises their own revenues from sources allocated to them under the constitution but also rely on financial

transfers from the central government, it may be useful to relate interest payment to a state's own tax revenue or own revenue to have an idea of the extent to which servicing of its debt makes demands on the revenue the state government generates on its own.

Table 3.7: Gross Interest Burden of the States (percent)

	GIP/SDP	GIP/TE	GIP/RE	GIP/RR	GIP/SOR	GIP/TTR	GIP/OTR
Kerala							
1980-81	1.11	5.33	6.83	7.12	10.44	9.35	13.55
1991-92	3.31	12.07	15.03	16.95	25.33	21.48	28.88
1992-93	3.94	11.60	13.85	15.84	24.52	20.63	27.82
Maharashtra							
1980-81	0.66	4.22	5.75	5.41	7.04	7.52	9.76
1991-92	1.67	9.49	11.54	11.87	15.36	16.50	19.96
1992-93	1.62	10.07	11.83	12.46	16.58	17.72	21.67
Tamil Nadu							
1980-81	1.13	5.40	7.91	7.12	10.45	9.79	14.25
1991-92	1.56	7.57	6.42	8.22	11.41	11.25	14.81
1992-93	1.84	9.13	9.77	11.25	16.49	13.77	18.62
West Bengal							
1980-81	1.14	7.02	9.76	9.98	16.26	13.22	21.18
1991-92	2.05	12.76	15.53	17.68	30.72	22.44	33.76
1992-93	2.22	13.28	16.73	18.75	33.79	24.32	37.39
All States							
1980-81	1.00	5.41	8.28	7.52	12.40	11.78	18.52
1991-92	1.78	10.14	12.70	13.59	22.97	20.81	30.61
1992-93	1.91	11.32	14.07	14.71	25.00	22.22	33.57

Note: For full table, refer Appendix 3B. GIP=Gross Interest Payment, TE=Total Expenditure, RE=Revenue Expenditure, RR=Revenue Receipts, SOR= States' Own Revenue, TTR= Total Tax Revenue and OTR=Own Tax Revenue

Source: RBI Bulletin, Finances of State Governments (various issues).

The gross interest burden measured on the basis of the ratios discussed above is shown in Table 3.7. In respect to gross interest burden, condition of all the four states have worsened from 1980-81 to 1992-93. During 1980-81 to 1992-93, the ratio of gross interest payment to GDP increased from 1.11 percent to 3.94 percent in Kerala and 0.66 percent to 1.62 percent in Maharashtra, 1.13 percent to 1.84 percent in Tamil Nadu and 1.14 percent to 2.22

percent in West Bengal. During this period, all state average of the same ratio increased from 1.00 percent to 1.91 percent. Increase in the ratio of the gross interest payment to GDP in Kerala and West Bengal is higher than the all state average of the same.

The other indicators also broadly reflect the above trends. Interest payment as a percentage of revenue receipts of all states increased from 7.52 percent in 1980-81 to 14.71 percent in 1992-93. Among the four states, the ratio exceeded the all state figure in Kerala and West Bengal. By 1992-93, in West Bengal, the situation has reached such a point where gross interest payment absorbed more than 18 percent of the total revenue earning of the state. As far as the burden of debt in respect to states own revenue is concerned, it shows that in Kerala and West Bengal the ratio of gross interest payment to states own revenue increased from 10.44 percent to 24.52 percent and 16.26 percent to 33.79 percent respectively. In Maharashtra, it increased from 7.04 percent to 16.58 and in Tamil Nadu from 10.45 to 16.49 percent. West Bengal's gross interest outgo on as a percentage of states own tax revenue is significantly higher than the all state average of the same.

Though gross interest burden of the states measured on the basis of selected indicators of measuring the intensity of debt burden showed a sharp rising trend during this period, still it is not proper to measure the debt burden on the basis of the gross interest payment obligation. The accurate intensity of the debt burden can be measured on the basis of the net interest payment obligation of the state. Net interest burden is shown in Table 3.8. Even after netting out for interest receipts, dividends and

profits, the outgo on account of interest payment is substantial and the trend of the interest burden to rise, which we noted earlier, remains valid. In Tamil Nadu in 1980-81 and 1991-92, there was a positive receipt of net interest. However, the data given in Appendix-3C shows that these two years were exceptional and the broad trend has been for the net outflow of interest payment to increase.

Table 3.8: Net Interest Burden of the States (percent)

	NIP/SDP	NIP/TE	NIP/RE	NIP/RR	NIP/SOR	NIP/TTR	NIP/OTR
Kerala							
1980-81	0.87	4.20	5.39	5.70	8.24	7.37	10.69
1991-92	3.15	11.49	14.31	16.27	24.12	20.46	27.50
1992-93	3.71	10.93	13.04	15.06	23.09	19.43	26.20
Maharashtra							
1980-81	0.06	0.37	0.51	0.50	0.62	0.66	0.86
1991-92	0.53	3.01	3.66	4.09	4.87	5.23	6.33
1992-93	0.53	3.31	3.88	4.46	5.44	5.82	7.11
Tamil Nadu							
1980-81	-0.55	-2.63	-3.84	-3.87	-5.08	-4.76	-6.93
1991-92	-0.81	-3.94	-3.34	-4.89	-5.93	-5.85	-7.69
1992-93	1.19	5.91	6.33	7.59	10.68	8.92	12.06
West Bengal							
1980-81	0.97	5.94	8.27	8.58	13.78	11.20	17.95
1991-92	1.95	12.17	14.82	17.00	29.30	21.40	32.20
1992-93	2.12	12.67	15.97	18.05	32.25	23.21	35.69
All States							
1980-81	0.31	1.69	2.59	2.48	3.07	3.69	5.80
1991-92	1.01	5.17	6.47	7.42	8.76	10.61	15.60
1992-93	1.47	7.75	9.64	10.56	12.98	15.22	23.00

Note: For full table, refer Appendix 3C. NIP=Net Interest Payment, TE= Total Expenditure, RE=Revenue Expenditure, RR=Revenue Receipts, SOR= States' Own Revenue, TTR = Total Tax Revenue, OTR=Own Tax Revenue. Source: Same as in Table 3.7.

There is significant inter-state differences in the net interest payment burden. For example in Kerala, net interest payment as a percentage of SDP increased from 0.87 percent in 1980-81 to 3.15 percent in 1991-92 indicating more than three times increase of the net interest payment-SDP ratio during this period. But, in

Maharashtra there has been nine fold increase in the same ratio but as a percentage of SDP it increased only from 0.06 percent to 0.53 percent which is significantly lower than that of Kerala. The same ratio for Tamil Nadu was also quite high compared to Maharashtra except for the years 1980-81 and 1991-92. During 1981-82 to 1992-93, in Tamil Nadu, interest payment-SDP ratio increased from 0.44 to 1.19. In West Bengal corresponding increase is from 0.97 percent to 2.12 percent. In Kerala and West Bengal, interest burden in terms of net outgo on account of interest payment with respect to all these indicators are significantly higher than Tamil Nadu and Maharashtra. In fact, among the four states, net burden of interest payment is lowest in Maharashtra because of the better recovery performance of the state.

Burden of Central Loans to States

To concentrate upon the interest liability only for analysing the state's debt burden presents a partial picture only. To take note of the repayment of principal, question of burden can usually be analysed in the context of state's debt to the centre for which adequate information is readily available. While analysing the composition of state's debt, we noted overwhelming predominance of central loans. The centre provides loans for number of purposes and at different terms as to interest liability and maturity.

Gross loans from the centre and the net availability of central loans differ by wide margins. Heavy debt servicing in form of repayment plus interest liability arising out of the borrowing in the past from the centre leave little of the gross amount receivable from the centre to the hands of the state. The mounting

debt servicing obligation has reduced the net availability of resources transferred from the centre to the states in the form of new loan. In recent years, the states have been returning more than three fourth of the total loans received for the repayment of past loans. The problem of states' indebtedness to the centre has assumed the character of a vicious circle where central loans are both causes and consequences of the problem of resource inadequacy of the state.

The Table 3.9 shows the net availability of central loans after netting out for interest payment and amortization. Between 6th to 7th plan period, the net amount available out of the total loans from the centre declined in all four states. The net loans as percentage of gross loan, decreased from 12.58 percent to 10.24

Table 3.9: Net Availability of Central Loans during 6th and 7th Plan
(Rs. in crores)

	GLC	RLC	IPCL	NACL	NACL as a percentage of GLC
Kerala					
6th Plan	689.43	432.59	170.09	86.75	12.58
7th Plan	1650.91	951.91	529.98	169.02	10.24
Maharashtra					
6th Plan	2435.13	575.91	533.18	1326.04	54.45
7th Plan	4747.25	1133.85	1873.92	1739.48	36.64
Tamil Nadu					
6th Plan	1089.10	386.13	306.28	396.69	36.42
7th Plan	1633.85	817.97	732.06	83.82	5.13
West Bengal					
6th Plan	2127.15	893.52	575.94	657.69	30.92
7th Plan	3450.15	1615.71	1495.80	338.64	9.82
All States					
6th Plan	21371.97	8461.76	5439.91	7470.30	34.95
7th Plan	46300.55	15320.03	15667.90	15312.62	33.07

Note: GLC=Gross Loans from the Centre, RLC=Repayment of Loans to the Centre, GICL= Gross Interest on Central Loans, NACL=Net Availability of Central Loans.

6th Plan Period (1980-81 to 1984-85)

7th Plan Period (1985-86 to 1989-90)

Source: Same as in Table 3.7.

percent in Kerala, 54.45 percent to 36.64 percent in Maharashtra, 36.42 percent to 5.13 percent in Tamil Nadu and 30.92 percent to 9.82 percent in West Bengal. Thus except Kerala, the decline was quite sharp in the other three states. Though the net loans as a percentage of gross loan declined in all four states, the share of net loans available in Maharashtra is highest among the four states. But all state figure of the same showed a marginal decline of roughly 1.5 percentage points from 6th to 7th plan period.

Since gross devolution of resources from the centre to the state is heavily weighted by the loan component, increasing debt servicing charges on central loan is affecting the net devolution of resources from the centre to the states in a major way. Because of the increasing debt servicing obligations on central loans, net devolution of resources as a percentage of gross devolution in all four states declined from 6th to 7th plan period. As can be seen from Table 3.10, between the two plan periods, net devolution of resources as a percentage of gross devolution declined from 71.19 percent to 66.61 percent in Kerala, 80.14 to 71.89 percent in Maharashtra, 81.74 to 78.77 percent in Tamil Nadu and 69.82 to 67.74 percent in West Bengal. In Kerala and West Bengal, net transfer of resources remained below the all state level in both the plan periods. In Maharashtra also, net transfer came below the all state average during the 7th plan period. However, in both the plan periods it remained above the all state average in Tamil Nadu. Thus, it can be said that assistance through loan transfer is illusive in character. It not only progressively reduces the net availability of central loans but also brings down the total volume of resources transferred from the centre to the states. Almost

Table 3.10: Gross and Net Devolution of Resources
(Rs. in lakhs)

Kerala	6th Plan	7th Plan
Gross Devolution(GD)	209175	443789
Net Devolution (ND)	148907	295600
ND as a percentage of GD	71.19	66.61
Maharashtra	6th Plan	7th Plan
Gross Devolution(GD)	558536	1069995
Net Devolution (ND)	447627	769218
ND as a percentage of GD	80.14	71.89
Tamil Nadu	6th Plan	7th Plan
Gross Devolution(GD)	379196	730274
Net Devolution (ND)	309950	575271
ND as a percentage of GD	81.74	78.77
West Bengal	6th Plan	7th Plan
Gross Devolution(GD)	486963	964516
Net Devolution (ND)	340017	653365
ND as a percentage of GD	69.82	67.74
All state	6th Plan	7th Plan
Gross Devolution (GD)	6250030	13518534
Net Devolution (ND)	4859863	10419741
ND as a percentage of GD	77.76	77.08

Source: Same as in Table 3.7.

one fourth of the total resource transferred from the centre to the states is going back in the form of repayment of loans and interest there on.

In respect of central loans, the situation has reached such a point where at times loan transfer from the central government is insufficient to meet the debt servicing obligation on central loan. This can be seen from the Table 3.11. The Table shows that net availability of loans from the centre was negative in certain years. For West Bengal, and Kerala, the net position was negative for three years out of thirteen years under study. In Tamil Nadu

and Maharashtra, loan transfers from the centre became negative in 1987-88 and 1992-93 respectively. The situations in Kerala and West Bengal is severe in respect to central loans are worse than the all state average.

Table 3.11: Net Availability of Loan Transfers from the Centre during 1980-81 to 1992-93 (Rs. in crores)

	KE	MAH	TN	WB	AS
1980-81	34.09	203.88	58.84	55.24	776.79
1981-82	-80.75	183.66	57.27	115.60	1123.77
1982-83	46.55	242.40	63.68	292.25	1722.46
1983-84	99.82	297.40	124.78	220.75	1835.35
1984-85	-12.96	398.70	92.12	-26.15	2011.93
1985-86	136.70	516.60	102.49	114.20	4050.85
1986-87	9.16	408.92	89.76	34.55	2056.62
1987-88	11.56	270.53	-288.61	-81.29	2687.66
1988-89	-5.32	233.75	48.63	62.81	2988.71
1989-90	16.92	309.68	131.55	208.37	3528.78
1990-91	131.51	408.88	233.67	444.34	-7800.33
1991-92	37.96	379.00	329.59	51.41	2851.86
1992-93	154.28	-133.95	353.60	-60.40	1363.93

Note: The abbreviations for the states are same as in Table 3.2.
Source: Same as in Table 3.7.

The growth of states debt to the centre can also be looked at separately in terms of interest charges on central loan as a percentage of total tax revenue, the total revenue and total expenditure of the state, as was done earlier in this chapter for the total debt of the states. The picture is presented in Table 3.12. In West Bengal, interest outgo on account of central loan is dramatic during this period. Compared to other States, base year position itself was quite high in West Bengal. Its interest payment to total tax revenue ratio went up from the 1980-81 level of 8.96 percent to 16.80 percent in 1992-93, interest payment to revenue receipts ratio from 6.76 percent to 12.96 percent and interest payment to total revenue expenditure ratio

from 6.62 percent to 11.56 percent. In Kerala, interest charges on central loan as a percentage of tax revenue went up to 9.12 percent in 1992-93 from 4.51 percent in the base year 1980-81. The corresponding increase with respect to total revenue was from 3.43 percent to 7.01 percent and with respect to total revenue expenditure was from 3.29 percent to 6.12 percent. In Maharashtra, the ratio of interest payment to total tax revenue increased from 4.22 percent to 12.48 percent, interest payment to total revenue receipts ratio increased from 3.03 percent to 8.77 percent and interest payment to total revenue expenditure ratio increased from 3.23 percent to 8.33 percent. In Tamil Nadu, the increase in these ratios was comparatively smaller. Its interest payment to tax revenue ratio increased from 5.97 percent to 7.21 percent, interest

Table 3.12: Burden of State's Debt to the Centre on their Revenue Budget (percent)

	IPC/RE	IPC/RR	IPC/SOR	IPC/TTR	IPC/OTR
Kerala					
1980-81	3.29	3.43	5.04	4.51	6.53
1991-92	7.19	8.10	12.11	10.27	13.81
1992-93	6.12	7.01	10.84	9.12	12.30
Maharashtra					
1980-81	3.23	3.03	3.95	4.22	5.47
1991-92	8.32	8.56	11.08	11.90	14.40
1992-93	8.33	8.77	11.68	12.48	15.26
Tamil Nadu					
1980-81	4.82	4.34	6.38	5.97	8.69
1991-92	3.62	4.63	6.43	6.33	8.34
1992-93	5.12	5.89	8.63	7.21	9.75
West Bengal					
1980-81	6.62	6.76	11.02	8.96	14.36
1991-92	11.14	12.67	22.02	16.09	24.20
1992-93	11.56	12.96	23.35	16.80	25.84
All State					
1980-81	5.31	4.83	6.29	7.56	11.89
1991-92	7.57	8.10	10.24	12.40	18.24
1992-93	8.12	8.48	10.93	12.81	19.36

Note: For full table, refer Appendix 3D.
Source: Same as in Table 3.7.

payment to revenue receipts increased from 4.34 percent to 5.89 percent and interest payment to total revenue expenditure ratio decreased from 4.82 percent to 5.12 percent during this period.

As far as the impact of repayment of principal is concerned we can analyse it with reference to the capital budgets of the states. Repayment of central loans forms a major part of the non-plan disbursement of the states on capital account.

Table 3.13: Burden of Central Loan on the Capital Budget of the State (percent)

	RCL/CR	RCL/CD
Kerala		
1980-81	12.85	9.98
1991-92	27.69	38.79
1992-93	20.17	33.31
Maharashtra		
1980-81	8.50	6.65
1991-92	9.78	15.91
1992-93	12.04	14.29
Tamil Nadu		
1980-81	9.63	7.52
1991-92	7.64	23.49
1992-93	11.71	23.05
West Bengal		
1980-81	35.79	30.81
1991-92	18.12	33.19
1992-93	15.15	21.03
All States		
1980-81	26.14	18.56
1991-92	13.22	17.00
1992-93	15.54	17.48

Note: For full table, refer Appendix 3E. RCL=Repayment of Central Loan, CR=Capital Receipts, CD=Capital Disbursement.
Source: Same as in Table 3.7.

As can be seen from the Table 3.13, between 1980-81 to 1992-93, repayment of central loans as a percentage of total capital receipts increased from 12.85 to 20.17 percent in Kerala, 8.50 percent to 12.04 percent in Maharashtra and 9.63 percent to 11.71 percent in Tamil Nadu. However in West Bengal, the same ratio

fluctuated within a wide range of 41.23 percent to 12.99 percent (See-Appendix-3E). During this period, all state average of the same ratio show a decline from 26.14 percent to 15.54 percent. Loan repayment as a percentage of total capital disbursement showed an increase in Kerala, Maharashtra and Tamil Nadu. During this period, among these three states, increase in the ratio of the outgo on account of repayment to total capital disbursement is highest in Kerala (by more than 20 percentage points), followed by Tamil Nadu (by more than 14 percentage points) and Maharashtra (by more than 7 percentage points). Loan repayment as a percentage of total capital disbursement in West Bengal fluctuated between 47.48 to 21.03 percent. Repayment of central loans and other non-developmental expenditures in the capital account left very little for developmental expenditures. Among the four states, capital account condition is severe in Kerala and West Bengal. During most of the years of 80s, more than 30 percent of the total capital disbursement had to be ear marked for repayment of central loans taken by these two states. The increasing indebtedness of the states and that too to the centre has become a major financial problem for the states. State governments complaint is that the central government is placed in a favourable position in the matter of tapping resources because of the constitutional position with regard to the discrimination of taxing and borrowing power.

Summary

The analysis of the debt position of the four states in the present chapter reveals that during 1980-81 to 1992-93, there has been a voluminous increase in the debt of the states in absolute terms. In relation to SDP, the increase is not that sharp in Maharashtra,

Tamil Nadu and West Bengal. However, Kerala's debt-SDP ratio increased sharply during this period. Among the different components of debt, we observed overwhelming predominance of central loans. At the same time, a declining trend was observed in the share of the debt owed to the centre in Kerala and Tamil Nadu. In West Bengal, the share of central loans started declining from 1984. Still the share of central loan in total outstanding debt of West Bengal is higher than Kerala and Tamil Nadu. The relative position of 'Internal debt' and collections by way of 'Provident funds (etc.)' in Kerala, Tamil Nadu and West Bengal are significantly higher than Maharashtra. With the rapid growth of the state's debt, there has been corresponding incidence of interest payment and that has put an increasing pressure on the revenue budget of the state's. The ratio of the net interest outgo to state's revenue receipts has accordingly shown a sharp increase in Kerala, Tamil Nadu and West Bengal. But better recovery in terms of interest receipts, dividends and profits kept net outgo on account of interest payment in check in Maharashtra. Tamil Nadu was also better placed in this regard compared to Kerala and West Bengal.

As far as debt owed to centre separately is concerned, it was found that mounting repayment obligation plus interest charges on past borrowing from the centre have progressively reduced net loan amounts received by the states. Negative loan transfer affected states severely by eating substantially into the resources earned by the states from other sources also. Huge repayment obligations have adversely affected the expenditure pattern of the state government.

Appendix-3A: Composition of Outstanding Debt
(Rs. in crores)

	IDEBT		LACG		PF		TOTAL	
Kerala								
1981	167	16.6	660	65.5	181	18.0	1008	100
1982	275	25.3	606	55.7	207	19.0	1088	100
1983	251	20.0	769	61.1	238	18.9	1258	100
1984	353	22.3	914	57.8	314	19.9	1581	100
1985	520	28.0	955	51.4	383	20.6	1858	100
1986	374	16.7	1382	61.8	481	21.5	2237	100
1987	466	18.7	1496	60.1	526	21.1	2488	100
1988	604	21.3	1616	57.1	610	21.6	2830	100
1989	718	24.6	1495	51.2	705	24.2	2918	100
1990	928	26.5	1654	47.2	920	26.3	3502	100
1991	1100	24.8	2166	48.8	1176	26.5	4442	100
1992	1323	25.5	2435	46.9	1433	27.6	5191	100
1993	1554	26.3	2721	46.1	1630	27.6	5905	100
Maharashtra								
1981	371	17.0	1497	68.6	315	14.4	2183	100
1982	474	18.3	1761	68.0	355	13.7	2590	100
1983	450	14.8	2184	71.7	414	13.6	3048	100
1984	464	13.1	2606	73.7	466	13.2	3536	100
1985	506	12.0	3171	75.3	532	12.6	4209	100
1986	538	10.7	3912	77.7	585	11.6	5035	100
1987	574	9.8	4634	79.2	645	11.0	5853	100
1988	621	9.4	5277	79.8	716	10.8	6614	100
1989	689	9.2	5938	79.6	829	11.1	7456	100
1990	785	9.1	6785	79.0	1021	11.9	8591	100
1991	850	8.6	7826	79.5	1174	11.9	9850	100
1992	1008	8.9	9040	79.4	1336	11.7	11384	100
1993	1310	10.3	9899	77.8	1510	11.9	12719	100
Tamil Nadu								
1981	356	25.2	985	69.6	74	5.2	1415	100
1982	379	24.3	1092	70.0	90	5.8	1561	100
1983	417	23.6	1213	68.7	136	7.7	1766	100
1984	485	23.7	1406	68.8	154	7.5	2045	100
1985	556	24.1	1574	68.3	175	7.6	2305	100
1986	514	20.2	1809	71.2	217	8.5	2540	100
1987	612	21.1	2018	69.7	264	9.1	2894	100
1988	869	25.2	2253	65.4	323	9.4	3445	100
1989	1035	26.6	2442	62.7	418	10.7	3895	100
1990	1305	28.2	2775	60.0	547	11.8	4627	100
1991	1446	26.3	3289	59.8	766	13.9	5501	100
1992	1677	25.7	3932	60.2	918	14.1	6527	100
1993	1822	23.8	4682	61.1	1160	15.1	7664	100

Appendix 3A contd....

West Bengal								
1981	329	15.6	1661	78.7	121	5.7	2111	100
1982	572	22.2	1864	72.3	142	5.5	2578	100
1983	338	10.9	2599	83.8	163	5.3	3100	100
1984	423	11.8	2951	82.6	197	5.5	3571	100
1985	594	15.1	3106	79.2	221	5.6	3921	100
1986	488	11.2	3631	83.2	247	5.7	4366	100
1987	571	11.9	3927	82.2	282	5.9	4780	100
1988	680	13.2	4147	80.6	320	6.2	5147	100
1989	820	14.9	4341	78.9	344	6.2	5505	100
1990	1007	15.8	4941	77.6	421	6.6	6369	100
1991	1185	15.1	6037	76.7	648	8.2	7870	100
1992	1526	17.0	6682	74.6	751	8.4	8959	100
1993	1728	17.5	7281	73.7	865	8.8	9874	100
All States								
1981	4443	18.3	17320	71.4	2491	10.3	24254	100
1982	5691	20.4	19320	69.1	2942	10.5	27953	100
1983	5221	16.1	23550	72.7	3642	11.2	32413	100
1984	6318	16.7	26981	71.5	4453	11.8	37752	100
1985	8000	18.2	30561	69.5	5385	12.3	43946	100
1986	8081	15.5	37842	72.4	6358	12.2	52281	100
1987	9146	15.1	44138	72.8	7354	12.1	60638	100
1988	10971	15.9	49122	71.1	8990	13.0	69083	100
1989	13436	17.2	54292	69.4	10456	13.4	78184	100
1990	16417	18.0	62210	68.1	12763	14.0	91390	100
1991	18591	17.2	73852	68.3	15760	14.6	108203	100
1992	22357	18.0	83254	67.0	18666	15.0	124277	100
1993	25781	18.4	92412	65.8	22236	15.8	140429	100

Note: The columns are the same as in Table 3.2.

Source: RBI Report On Currency and Finance (various Issues)

Appendix 3B: Gross Interest Burden on the Revenue Budget of the States
(percent)

	GIP/SDP	GIP/TE	GIP/RE	GIP/RR	GIP/SOR	GIP/TTR	GIP/OTR
Kerala							
1980-81	1.11	5.33	6.83	7.12	10.44	9.35	13.55
1981-82	1.29	5.26	7.57	6.71	9.41	10.48	15.26
1982-83	1.19	6.16	7.84	7.58	11.07	9.84	14.01
1983-84	1.52	6.92	9.22	9.79	15.12	13.14	18.80
1984-85	1.82	7.70	10.64	10.76	16.04	14.16	19.48
1985-86	1.77	6.46	8.79	9.27	14.57	13.54	17.40
1986-87	2.16	8.20	10.71	11.80	18.13	15.38	21.78
1987-88	2.31	9.47	11.97	13.44	19.14	17.55	23.04
1988-89	2.44	9.70	11.86	12.89	19.61	16.28	22.95
1989-90	2.52	10.14	12.75	14.31	20.83	17.35	23.77
1990-91	2.59	10.09	12.06	14.18	21.99	18.65	25.41
1991-92	3.31	12.07	15.03	16.95	25.33	21.48	28.88
1992-93	3.94	11.60	13.85	15.84	24.52	20.63	27.82
Maharashtra							
1980-81	0.66	4.22	5.75	5.41	7.04	7.52	9.76
1981-82	0.78	4.74	6.54	6.14	7.76	8.36	10.58
1982-83	0.83	4.70	6.41	5.94	7.54	8.14	10.22
1983-84	0.84	4.66	6.22	6.08	7.81	8.70	10.85
1984-85	0.98	4.98	6.50	6.87	8.96	10.10	12.82
1985-86	1.04	5.41	6.90	7.42	9.24	10.77	13.04
1986-87	1.39	6.88	8.86	8.86	11.29	13.04	15.81
1987-88	1.41	7.61	9.58	9.45	11.97	13.57	16.38
1988-89	1.41	7.82	9.69	10.06	12.75	13.91	16.57
1989-90	1.40	7.77	9.57	10.05	12.67	14.13	17.19
1990-91	1.39	8.18	10.06	10.12	12.74	14.42	17.20
1991-92	1.67	9.49	11.54	11.87	15.36	16.50	19.96
1992-93	1.62	10.07	11.83	12.46	16.58	17.72	21.67
Tamil Nadu							
1980-81	1.13	5.40	7.91	7.12	10.45	9.79	14.25
1981-82	0.95	4.59	6.77	6.38	9.33	7.85	10.92
1982-83	1.01	4.42	6.43	6.04	8.60	7.41	10.02
1983-84	1.09	4.62	6.66	6.48	9.53	8.22	11.11
1984-85	1.07	4.95	6.60	6.55	9.63	8.37	11.24
1985-86	1.04	4.90	6.62	6.14	9.07	7.85	10.47
1986-87	1.15	5.51	7.17	6.91	9.90	8.49	11.32
1987-88	1.16	5.70	7.08	7.73	11.61	9.89	13.56
1988-89	1.33	6.61	8.11	8.74	13.10	11.22	15.29
1989-90	1.48	6.47	7.75	8.62	12.72	10.67	14.72
1990-91	1.61	7.56	8.87	9.84	14.28	12.13	16.02
1991-92	1.56	7.57	6.42	8.22	11.41	11.25	14.81
1992-93	1.84	9.13	9.77	11.25	16.49	13.77	18.62

Appendix 3B contd....

West Bengal							
1980-81	1.14	7.02	9.76	9.98	16.26	13.22	21.18
1981-82	1.09	6.36	8.92	9.56	15.48	12.13	18.99
1982-83	1.43	8.19	10.47	12.31	21.16	16.69	26.62
1983-84	1.31	8.45	10.60	12.02	19.89	15.33	23.98
1984-85	1.50	8.92	11.36	13.73	22.01	17.33	26.06
1985-86	1.56	9.24	12.16	11.73	20.98	15.73	24.46
1986-87	1.73	9.51	12.36	13.29	24.08	17.58	27.36
1987-88	1.80	10.00	13.02	13.53	24.18	18.10	27.21
1988-89	1.72	10.49	12.92	13.45	23.31	18.03	25.87
1989-90	1.81	10.85	13.34	15.17	24.63	18.27	27.34
1990-91	1.79	10.40	12.23	15.26	26.65	19.73	29.38
1991-92	2.05	12.76	15.53	17.68	30.72	22.44	33.76
1992-93	2.22	13.28	16.73	18.75	33.79	24.32	37.39
All States							
1980-81	1.00	5.41	8.28	7.52	12.40	11.78	18.52
1981-82	1.01	5.72	8.44	7.81	12.56	11.53	17.49
1982-83	1.07	5.93	8.43	8.07	13.01	12.08	17.98
1983-84	1.06	5.85	8.25	8.18	13.17	12.46	18.26
1984-85	1.19	6.19	8.70	8.99	14.67	13.62	20.12
1985-86	1.26	6.55	8.97	8.80	14.82	13.48	20.20
1986-87	1.58	7.92	10.78	10.73	17.94	16.34	24.54
1987-88	1.66	8.18	10.86	11.13	18.79	16.90	25.35
1988-89	1.68	8.85	11.36	11.77	19.77	17.91	26.49
1989-90	1.77	9.36	11.93	12.71	20.57	18.38	27.64
1990-91	1.83	9.50	12.06	13.02	21.87	19.41	28.52
1991-92	1.78	10.14	12.70	13.59	22.97	20.81	30.61
1992-93	1.91	11.32	14.07	14.71	25.00	22.22	33.57

Note: The columns are same as in Table 3.7.
Source : Same as in Table 3.7.

Appendix 3C: Net Interest Burden on the Revenue Budget of the States (percent)

	NIP/SDP	NIP/TE	NIP/RE	NIP/RR	NIP/SOR	NIP/TTR	NIP/OTR
Kerala							
1980-81	0.87	4.20	5.39	5.70	8.24	7.37	10.69
1981-82	1.19	4.82	6.94	6.19	8.64	9.61	14.00
1982-83	0.98	5.05	6.42	6.30	9.07	8.06	11.48
1983-84	1.36	6.17	8.22	8.82	13.48	11.71	16.75
1984-85	1.35	5.72	7.89	8.22	11.90	10.51	14.46
1985-86	1.42	5.20	7.08	7.60	11.73	10.90	14.01
1986-87	1.72	6.52	8.52	9.61	14.41	12.22	17.32
1987-88	1.89	7.73	9.77	11.25	15.62	14.32	18.80
1988-89	2.17	8.63	10.56	11.64	17.45	14.49	20.42
1989-90	2.35	9.46	11.89	13.48	19.43	16.19	22.18
1990-91	2.40	9.37	11.20	13.31	20.43	17.33	23.61
1991-92	3.15	11.49	14.31	16.27	24.12	20.46	27.50
1992-93	3.71	10.93	13.04	15.06	23.09	19.43	26.20
Maharashtra							
1980-81	0.06	0.37	0.51	0.50	0.62	0.66	0.86
1981-82	0.13	0.77	1.07	1.06	1.27	1.36	1.73
1982-83	0.10	0.54	0.74	0.72	0.87	0.94	1.18
1983-84	0.07	0.41	0.55	0.57	0.69	0.76	0.95
1984-85	0.09	0.47	0.62	0.69	0.85	0.96	1.22
1985-86	0.10	0.54	0.69	0.79	0.92	1.07	1.30
1986-87	0.32	1.56	2.01	2.16	2.56	2.95	3.58
1987-88	0.35	1.91	2.40	2.55	3.00	3.40	4.10
1988-89	0.36	2.00	2.48	2.78	3.26	3.56	4.24
1989-90	0.36	2.01	2.47	2.80	3.27	3.65	4.44
1990-91	0.34	1.98	2.44	2.66	3.09	3.49	4.17
1991-92	0.53	3.01	3.66	4.09	4.87	5.23	6.33
1992-93	0.53	3.31	3.88	4.46	5.44	5.82	7.11
Tamil Nadu							
1980-81	-0.55	-2.63	-3.84	-3.87	-5.08	-4.76	-6.93
1981-82	0.44	2.14	3.16	3.08	4.35	3.66	5.10
1982-83	0.52	2.26	3.29	3.18	4.39	3.79	5.12
1983-84	0.63	2.68	3.86	3.86	5.52	4.76	6.44
1984-85	0.62	2.88	3.84	3.92	5.61	4.88	6.55
1985-86	0.60	2.83	3.82	3.64	5.23	4.53	6.04
1986-87	0.71	3.40	4.43	4.38	6.11	5.25	6.99
1987-88	0.75	3.67	4.57	5.13	7.49	6.38	8.75
1988-89	0.97	4.84	5.94	6.56	9.60	8.23	11.21
1989-90	1.12	4.90	5.86	6.66	9.62	8.07	11.14
1990-91	1.30	6.09	7.15	8.08	11.50	9.77	12.91
1991-92	-0.81	-3.94	-3.34	-4.89	-5.93	-5.85	-7.69
1992-93	1.19	5.91	6.33	7.59	10.68	8.92	12.06

Appendix 3C contd....

West Bengal							
1980-81	0.97	5.94	8.27	8.58	13.78	11.20	17.95
1981-82	0.92	5.39	7.55	8.21	13.11	10.27	16.07
1982-83	1.22	7.00	8.94	10.70	18.06	14.25	22.73
1983-84	1.08	6.95	8.72	10.10	16.36	12.61	19.73
1984-85	1.31	7.77	9.90	12.18	19.18	15.10	22.72
1985-86	1.39	8.23	10.83	10.58	18.67	14.01	21.78
1986-87	1.48	8.12	10.56	11.58	20.58	15.02	23.38
1987-88	1.65	9.15	11.92	12.53	22.13	16.57	24.90
1988-89	1.55	9.46	11.66	12.30	21.03	16.27	23.34
1989-90	1.62	9.75	11.99	13.84	22.14	16.42	24.57
1990-91	1.66	9.65	11.35	14.32	24.73	18.31	27.27
1991-92	1.95	12.17	14.82	17.00	29.30	21.40	32.20
1992-93	2.12	12.67	15.97	18.05	32.25	23.21	35.69
AS							
1980-81	0.31	1.69	2.59	2.48	3.88	3.69	5.80
1981-82	0.42	2.39	3.52	3.42	5.25	4.82	7.31
1982-83	0.44	2.41	3.42	3.44	5.28	4.90	7.30
1983-84	0.41	2.29	3.22	3.36	5.15	4.87	7.14
1984-85	0.57	2.96	4.16	4.51	7.02	6.51	9.62
1985-86	0.66	3.46	4.74	4.85	7.83	7.13	10.68
1986-87	0.92	4.61	6.28	6.54	10.45	9.52	14.30
1987-88	0.99	4.88	6.48	6.96	11.21	10.09	15.13
1988-89	0.99	5.22	6.70	7.29	11.66	10.56	15.62
1989-90	1.12	5.89	7.52	8.40	12.96	11.58	17.41
1990-91	1.32	6.83	8.66	9.71	15.71	13.95	20.49
1991-92	0.91	5.17	6.47	7.42	11.71	10.61	15.60
1992-93	1.31	7.75	9.64	10.56	17.12	15.22	23.00

Note: The columns are same as in Table 3.8.
Source : Same as in Table 3.7.

Appendix 3D: The Burden of States' Debt to the Centre on their
Revenue Budget (percent)

	IPC/RE	IPC/RR	IPC/SOR	IPC /TTR	IPC/OTR
Kerala					
1980-81	3.29	3.43	5.04	4.51	6.53
1981-82	3.51	3.12	4.37	4.87	7.09
1982-83	2.88	2.79	4.07	3.62	5.16
1983-84	4.55	4.83	7.46	6.48	9.28
1984-85	4.73	4.78	7.13	6.30	8.66
1985-86	3.36	3.55	5.57	5.18	6.65
1986-87	6.30	6.94	10.67	9.04	12.81
1987-88	6.11	6.86	9.77	8.96	11.76
1988-89	6.14	6.67	10.15	8.42	11.88
1989-90	6.17	6.92	10.08	8.40	11.50
1990-91	4.90	5.76	8.93	7.57	10.32
1991-92	7.19	8.10	12.11	10.27	13.81
1992-93	6.12	7.01	10.84	9.12	12.30
Maharashtra					
1980-81	3.23	3.03	3.95	4.22	5.47
1981-82	3.62	3.40	4.29	4.62	5.86
1982-83	3.75	3.48	4.42	4.77	5.99
1983-84	3.93	3.84	4.93	5.50	6.85
1984-85	4.30	4.55	5.93	6.68	8.48
1985-86	4.45	4.79	5.96	6.94	8.40
1986-87	6.27	6.27	7.99	9.22	11.18
1987-88	6.78	6.69	8.47	9.60	11.59
1988-89	6.90	7.16	9.08	9.91	11.81
1989-90	6.80	7.14	9.00	10.04	12.22
1990-91	6.93	6.97	8.77	9.92	11.84
1991-92	8.32	8.56	11.08	11.90	14.40
1992-93	8.33	8.77	11.68	12.48	15.26
Tamil Nadu					
1980-81	4.82	4.34	6.38	5.97	8.69
1981-82	3.66	3.45	5.05	4.25	5.91
1982-83	3.62	3.40	4.84	4.17	5.64
1983-84	3.54	3.45	5.07	4.38	5.91
1984-85	3.45	3.42	5.03	4.37	5.87
1985-86	3.83	3.56	5.25	4.54	6.06
1986-87	4.29	4.14	5.93	5.09	6.78
1987-88	4.09	4.47	6.71	5.72	7.84
1988-89	4.77	5.15	7.71	6.61	9.00
1989-90	4.26	4.74	6.99	5.86	8.09
1990-91	4.37	4.84	7.03	5.97	7.88
1991-92	3.62	4.63	6.43	6.33	8.34
1992-93	5.12	5.89	8.63	7.21	9.75

Appendix 3D contd...

West Bengal					
1980-81	6.62	6.76	11.02	8.96	14.36
1981-82	6.62	7.10	11.49	9.01	14.10
1982-83	6.35	7.47	12.84	10.13	16.15
1983-84	7.52	8.53	14.11	10.88	17.02
1984-85	8.44	10.20	16.35	12.87	19.37
1985-86	9.03	8.71	15.58	11.69	18.17
1986-87	9.69	10.41	18.87	13.78	21.44
1987-88	9.98	10.37	18.53	13.87	20.85
1988-89	9.71	10.11	17.51	13.55	19.44
1989-90	9.84	11.19	18.17	13.48	20.17
1990-91	8.70	10.86	18.96	14.04	20.91
1991-92	11.14	12.67	22.02	16.09	24.20
1992-93	11.56	12.96	23.35	16.80	25.84
All States					
1980-81	5.31	4.83	6.29	7.56	11.89
1981-82	5.13	4.75	6.17	7.01	10.64
1982-83	5.01	4.80	6.14	7.17	10.68
1983-84	5.02	4.98	6.29	7.59	11.12
1984-85	5.53	5.72	7.27	8.66	12.79
1985-86	5.21	5.11	6.52	7.82	11.73
1986-87	7.17	7.14	9.15	10.88	16.33
1987-88	6.97	7.15	12.92	10.85	16.27
1988-89	7.08	7.34	9.32	11.16	16.51
1989-90	7.29	7.76	10.10	11.23	16.88
1990-91	7.21	7.79	9.91	11.61	17.06
1991-92	7.57	8.10	10.24	12.40	18.24

Note: The columns are same as in Table 3.12.
Source : Same as in Table 3.7.

Appendix 3E: Burden of Central Loan on the Capital Budget of the States (percent)

	RCL/CR	RCL/Cd
Kerala		
1980-81	12.85	9.98
1981-82	85.28	44.61
1982-83	18.11	18.47
1983-84	15.00	16.61
1984-85	46.57	39.74
1985-86	33.49	45.95
1986-87	35.10	33.80
1987-88	27.56	38.59
1988-89	29.11	36.52
1989-90	23.34	32.26
1990-91	14.48	25.13
1991-92	27.69	38.79
1992-93	20.17	33.31
Maharashtra		
1980-81	8.50	6.65
1981-82	13.37	11.01
1982-83	14.02	11.80
1983-84	15.39	13.82
1984-85	13.20	14.90
1985-86	11.92	15.21
1986-87	16.67	17.61
1987-88	15.03	15.06
1988-89	11.93	14.78
1989-90	9.97	13.50
1990-91	11.95	13.91
1991-92	9.78	15.91
1992-93	12.04	14.29
Tamil Nadu		
1980-81	9.63	7.52
1981-82	8.11	7.36
1982-83	15.21	12.28
1983-84	16.13	14.43
1984-85	13.07	12.05
1985-86	20.73	18.32
1986-87	18.60	16.14
1987-88	15.27	19.29
1988-89	16.50	20.43
1989-90	14.24	20.68
1990-91	18.43	27.31
1991-92	7.64	23.49
1992-93	11.71	23.05

Appendix 3E contd....

West Bengal		
1980-81	35.79	30.81
1981-82	39.41	34.82
1982-83	23.96	34.48
1983-84	21.15	31.98
1984-85	31.68	47.48
1985-86	37.54	40.86
1986-87	36.19	41.01
1987-88	41.23	46.17
1988-89	28.24	37.70
1989-90	20.41	29.26
1990-91	12.99	26.25
1991-92	18.12	33.19
1992-93	15.15	21.03
All States		
1980-81	26.14	18.56
1981-82	22.52	16.96
1982-83	20.00	16.81
1983-84	20.58	19.22
1984-85	21.41	20.24
1985-86	19.88	21.58
1986-87	21.93	21.25
1987-88	20.55	21.66
1988-89	19.05	21.88
1989-90	16.61	20.17
1990-91	16.09	20.70
1991-92	13.22	17.00
1992-93	15.54	17.48

Note: The columns are same as in Table 3.13.

Source : Same as in Table 3.7.

CHAPTER IV

EXPENDITURE PATTERNS OF THE STATE GOVERNMENTS

Introduction

Increasing indebtedness of the state governments and the consequent increase in interest burden at the state level was highlighted in the previous chapter. What is the cause of the rapid increase in debt of the state governments? It is the outcome of the complex interaction of many factors which either hampered the revenue receipts growth or accelerated the growth of total expenditure in such a way which made fiscal adjustment difficult. The increasing mismatch between the revenue receipts and the government expenditure resulted in the widening of fiscal deficits, which had to be financed by borrowing. In the present chapter, we shall take up the expenditure side of the problem of fiscal deficits of the state governments. We shall examine the pattern of state government expenditures and try to locate the components that have contributed relatively more to the acceleration of the expenditures and thereby borrowings of the state governments.

The total expenditure of the state government can be classified in the form of either plan and non-plan or developmental and non-developmental expenditure. The discussions of these are overlapping. While quite a large proportion of the non-plan expenditure may qualify to be classified as developmental, the proportion of non-developmental expenditure qualifying as plan is rather small. In fact, around 55 percent of the total non-plan expenditure is developmental in nature. However, if one observes

the composition of total plan expenditure, the proportion of developmental expenditure in it is more than 90 percent. Since quite a large proportion of the non-plan expenditure also goes to meet the developmental needs of the states, increasing non-plan expenditure should not be of much concern as long as the increasing non-plan expenditure is for developmental purposes.

Since our interest is to examine the pattern of state expenditure and the influence of the different components of state expenditure on borrowing we divide the whole chapter into two sections. The first section examines the trends in plan and non-plan expenditures and their impact on borrowings of the states. The following section diagnoses the trends in developmental and non-developmental expenditures and their implications for the burden of debt.

Plan and Non-plan Expenditures of the State Governments

As can be seen from the Table 4.1, during 1980-81 to 1992-93, in three out of four states, non-plan expenditure grew at a rate significantly higher than their plan expenditure; only in Tamil Nadu, the latter grew at a marginally higher rate than the former. Kerala's non-plan expenditure grew at the highest rate of 16.50 percent per annum, whereas its plan expenditure grew at 12.44 percent; the excess growth being the highest at 4.06 percentage points in Kerala among the four states we are studying, followed by West Bengal and Maharashtra. Like Kerala, Maharashtra and West Bengal, all state average rate of growth of non-plan expenditure was also higher than the plan ones and the difference between these rate of growth is 1.93 percentage points.

Table 4.1: Annual Compound Growth Rate of Plan and Non-Plan Expenditure during 1980-81 to 1992-93 (percent)

States	Plan Expenditure (1)	Non-Plan Expenditure (2)	Gap (2)-(1)
Kerala	12.44	16.50	4.06
Maharastra	14.32	15.18	0.86
Tamil Nadu	16.18	15.97	-0.21
West Bengal	11.89	15.02	3.13
All States	14.34	16.27	1.93

Source: Same as in Table 3.7.

The non-plan expenditure constitutes almost 70 percent of the total and is the first priority of the state governments. But it cannot be said that there has been any dramatic increase in the overall non-plan expenditure for the period under discussion. In absolute terms, between 1980-81 to 1992-93, non-plan expenditure of all states taken together increased from Rs. 15304.20 crores to Rs. 84062.56 crores. As a percentage of total expenditure it shows an increase from 67.53 percent to 70.76 percent. However, there is significant inter-state variation in the relative movements of plan and non-plan components. As can be seen from the Table 4.2, between 1980-81 and 1992-93, in Maharashtra, the share of the plan expenditure in total did not decline sharply. In seven out of the thirteen year period, it hovered around thirty percent. In West Bengal and Tamil Nadu, the decline of the share of plan expenditure was relatively much sharper in the recent years. It declined from 30.60 percent in 1987-88 to 19.61 percent in 1992-93 in Tamil Nadu and 33.15 percent to 20.05 percent in West Bengal, during the same period. In between 1980-81 to 1986-87, the share of plan expenditure in total of West Bengal was in the order of 25 percent. In Kerala, the share of plan expenditure has declined steadily from around 31 percent in 1980-81 to 20 percent in 1992-93.

Table 4.2: Composition of Total Expenditure

(percentage)

Years	Kerala		Maharashtra		Tamil Nadu		West Bengal		All States	
	Plan	Nplan	Plan	Nplan	Plan	Nplan	Plan	Nplan	Plan	Nplan
1980-81	31.67	68.33	28.24	71.76	20.29	79.71	27.96	72.04	32.47	67.53
1981-82	27.04	72.96	29.62	70.38	27.40	72.60	25.75	74.25	33.13	66.87
1982-83	27.03	72.97	31.83	68.17	27.82	72.18	26.79	73.21	33.19	66.81
1983-84	32.82	67.18	32.84	67.16	28.26	71.74	24.97	75.03	33.95	66.05
1984-85	28.10	71.90	31.10	68.90	27.78	72.22	19.86	80.14	32.57	67.43
1985-86	23.36	76.64	24.26	75.74	26.14	73.86	26.09	73.91	31.22	68.78
1986-87	24.72	75.28	29.64	70.36	27.78	72.22	24.78	75.22	34.35	65.65
1987-88	23.44	76.56	31.03	68.97	30.60	69.40	33.15	66.85	35.23	64.77
1988-89	22.70	77.30	30.53	69.47	25.10	74.90	32.63	67.37	33.01	66.99
1989-90	23.46	76.54	28.16	71.84	23.79	76.21	30.02	69.98	30.29	69.71
1990-91	22.50	77.50	27.22	72.78	21.87	78.13	24.85	75.15	30.12	69.88
1991-92	20.49	79.51	25.15	74.85	18.16	81.84	21.11	78.89	28.82	71.18
1992-93	21.16	78.84	27.54	72.46	19.61	80.39	20.05	79.95	29.23	70.71

Source: Same as in Table 3.7.

Since revenue resources for plan expenditure or the balance from current revenue is the excess of revenue receipts over non-plan expenditures, rapid increase in non-plan expenditure would reduce the revenue resources for plan expenditures of the state. Declining revenue resources for plan expenditure, and large scale borrowing to finance plan expenditure is a phenomenon observed among the states. Before taking up the issue of borrowing and plan expenditure, a brief examination of the composition of plan and non-plan expenditure in revenue and capital accounts is intended.

The composition of plan and non-plan expenditure in revenue and capital account is shown in Table 4.3. From the Table, it is evident that the share of capital expenditure in total plan and non-plan expenditures are declining in Kerala, Maharashtra and Tamil Nadu. Between 6th and 7th plan period, except West Bengal, the share of capital expenditure in total plan expenditure declined from 54.74 percent to 51.14 percent in Kerala, from 64.87 percent to 51.19 percent in Maharashtra and from 36.85 percent to 26.73

Table 4.3: Composition of Plan and Non-Plan Expenditure in Revenue and Capital Account

(percentage)

States	Plan Expenditure				Non-Plan Expenditure			
	6th Plan		7th Plan		6th Plan		7th Plan	
	Rev. Exp.	Cap. Exp.	Rev. Exp.	Cap. Exp.	Rev. Exp.	Cap. Exp.	Rev. Exp.	Cap. Exp.
Kerala	45.26	54.74	48.66	51.14	87.21	12.79	87.98	12.02
Maharashtra	35.13	64.87	48.81	51.19	91.71	8.29	91.89	8.11
Tamil Nadu	63.15	36.85	73.27	26.73	74.37	25.63	81.94	18.06
West Bengal	55.39	44.61	52.82	47.18	83.00	17.00	89.65	10.35

Source: Same as in Table 3.7.

percent in Tamil Nadu. But the decline was rather sharp in Tamil Nadu. It is noteworthy that the share of capital expenditure in plan expenditure of Tamil Nadu was the lowest already in the 6th plan period. The difference between Maharashtra and Tamil Nadu is that while in Maharashtra, the decline was from a high level of 64.87 percent, in Tamil Nadu the decline was from a low level of 36.85 percent to 26.73 percent. But in West Bengal, the share of capital expenditure in total plan expenditure increased from 44.61 percent to 47.18 percent.

The composition of the total non-plan expenditure in revenue and capital account also show that like the plan expenditure, the share of non-plan expenditure in revenue account also increased during the last two plan periods. Between 6th to 7th plan period, the share of non-plan revenue expenditure in total non-plan expenditure was quite high in all four states. During last two plan periods, non-plan expenditure in revenue account remained almost constant in

the order of 87 percent of the total non-plan expenditure of Kerala and more than 91 percent of the total non-plan expenditure of Maharashtra. But the share of non-plan revenue expenditure in total non-plan expenditure increased from 74.37 percent to 81.94 percent in Tamil Nadu and from 83.00 percent to 89.65 percent in West Bengal.

Analysis of plan and non-plan expenditure in revenue and capital account show that revenue account expenditure is absorbing increasing share of both plan and non-plan expenditure of states. Since revenue account expenditure is absorbing increasing share of both plan and non-plan expenditures, the composition of the latter under the major heads of development in revenue account would give an idea about the pattern of productive spending in the revenue account. For that purpose, an examination of the composition of plan and non-plan developmental expenditure under the major heads of development in revenue account is necessary.

It can be seen from the Table 4.4 that major portion of the increase of the non-plan developmental expenditure on revenue account was on 'Social Services'. The share of the plan-developmental expenditure for 'Social Services' in revenue account was also significant. Between 1980-81 to 1992-93, the share of non-plan developmental expenditure in revenue account for 'Social Services' constituted more than 78 percent of the total non-plan developmental expenditures in revenue account of Kerala. In West Bengal also, it was more than 71 percent. Compared to Kerala and West Bengal, the share of non-plan developmental expenditure on 'Social Services' was much lower for Maharashtra and Tamil Nadu. In

Table 4.4: Composition of Plan and Non-Plan Developmental Expenditure in Revenue Account (Rs. in lakhs)

	Plan Expenditure			Non-Plan Expenditure		
	1980-81	1991-92	1992-93	1980-81	1991-92	1992-93
Kerala						
i) SS	5294 (43.9)	13770 (33.6)	18435 (31.9)	29877 (77.8)	121295 (77.8)	143122 (76.2)
ii) EC	6770 (56.1)	27209 (66.4)	39313 (68.1)	8513 (22.2)	34638 (22.2)	44808 (23.8)
Total (i+ii)	12064	40979	57748	38390	155933	187930
Maharashtra						
i) SS	10077 (50.2)	59427 (41.5)	74594 (37.6)	55371 (51.4)	300798 (55.8)	337765 (62.3)
ii) EC	9987 (49.8)	83818 (58.5)	123685 (62.4)	52352 (48.6)	237942 (44.2)	204606 (37.7)
Total (i+ii)	20064	143245	198279	107723	538740	542371
Tamil Nadu						
i) SS	9082 (45.6)	65532 (49.6)	63970 (48.7)	34174 (54.4)	222523 (40.9)	253586 (60.9)
ii) EC	10817 (54.4)	66619 (50.4)	67413 (51.3)	28700 (45.7)	321730 (59.1)	163112 (39.1)
Total (i+ii)	19899	132151	131383	62874	544253	416698
West Bengal						
i) SS	13553 (63.1)	27844 (40.3)	34735 (40.7)	40384 (71.0)	195188 (72.0)	222582 (73.1)
ii) EC	7921 (36.9)	41282 (59.7)	50568 (59.3)	16497 (29.0)	75818 (28.0)	81892 (26.9)
Total (i+ii)	21474	69126	85303	56881	271006	304474

Note: Figures within bracket are percentage shares
SS=Social Services, EC=Economic Services.

Source: Same as in Table 3.7.

fact, in Tamil Nadu, between 1980-81 and 1991-92 expenditure on 'Social Services' declined from 54.4 percent to 40.9 percent. But after that it showed a sharp increase to 60.9 percent in 1992-93.

Increase in the share of revenue account expenditure in 'Social Services' is not directly remunerative in nature in the sense of yielding interest receipts, dividends and profits. Therefore, comparatively higher expenditures on these heads in Kerala and West

Bengal could be a possible explanation of higher net interest burden in these two states compared to Maharashtra and Tamil Nadu. As far as the plan developmental expenditure in revenue account is concerned, Table 4.4 shows that except Tamil Nadu, in other three states the share of plan developmental expenditure in 'Social Services' declined. Although the share of plan developmental expenditures on 'Social Services' declined, still it constitutes more than one third of the total plan developmental expenditures in the revenue account.

The share of plan developmental expenditure in total revenue account expenditure was much lower than the share of non-plan developmental expenditure in total revenue account expenditure. The share of plan developmental expenditure on 'Economic Services' on revenue account in Kerala, Maharashtra and Tamil Nadu has risen. However, since the share of plan developmental expenditure in total revenue account expenditure was very low, increasing share of plan

Table 4.5: Composition of Expenditure under Major Heads of Revenue Account (percent)

	SS/RE	EC/RE
Kerala		
1980-81	53.14	23.09
1991-92	42.34	19.39
1992-93	42.36	22.05
Maharashtra		
1980-81	35.08	33.41
1991-92	36.97	33.02
1992-93	37.21	29.63
Tamil Nadu		
1980-81	39.29	35.89
1991-92	34.11	45.99
1992-93	42.18	30.62
West Bengal		
1980-81	50.31	22.78
1991-92	43.00	22.58
1992-93	43.27	22.27

Source: Same as in Table 3.7.

developmental expenditure on 'Economic Services' has had little impact on total expenditure on 'Economic Services' in revenue account.

As can be seen from the Table 4.5, the share of 'Economic Services' in total expenditure in the revenue account is very low compared to the expenditure on 'Social Services'. During 1980-81 to 1992-93, in Kerala and West Bengal, expenditure on 'Economic Services' in the revenue account had less than 25 per cent share in the total revenue expenditure. During this period, in Maharashtra, the share declined from 33.41 per cent to 29.63 per cent. Among the four states, the share of 'Economic Services' in total revenue account expenditure was highest in Tamil Nadu.

From the above analysis of the state government expenditure on the basis of the plan and non-plan distinctions, following observations can be made. Firstly, plan expenditure as a proportion of total state government expenditure is on the decline. Secondly, the proportion of both plan and non-plan expenditure on revenue account is increasing. The composition of plan and non-plan developmental expenditure in revenue account showed that the share of total expenditure on 'Social Services' is comparatively higher in Kerala and West Bengal. As far as the plan developmental expenditure (in revenue account) is concerned, except Tamil Nadu, increasing share of plan developmental expenditure in revenue account is used on 'Economic Services'. The rise in the revenue account expenditure on 'Social Services', which by their very nature are not productive in commercial sense, imposes a heavy burden on the revenue budget of the state.

During the last decade, rapid growth of non-plan expenditure accentuated the debt problem in two different ways: First, by increasing the total volume of expenditure and second, by reducing the availability of revenue resources for plan expenditure. As can be seen from the Table 4.6, during 1980-81 to 1992-93, plan expenditure as a percentage of total revenue receipts declined sharply from 42.31 percent to 28.89 percent in Kerala. In Maharashtra and Tamil Nadu, plan expenditure as a percentage of total revenue receipts started showing a decline by the end of the eighties. In West Bengal, the ratio between plan expenditure and revenue receipts fluctuated between 35 and 45 percent except for the year 1991-92 when the ratio declined to 30.42 percent. As far as the non-plan expenditure as a percentage of total revenue receipts is concerned, it can be seen that in Kerala, Tamil Nadu and West Bengal, in most of the years, total revenue receipts became insufficient to meet the non-plan expenditures of the respective states. In Maharashtra, except 1985-86, total revenue earning was just sufficient to meet the non-plan expenditures of the state.

Since revenue earning was not sufficient enough to meet the non-plan expenditure of the state of Kerala, Tamil Nadu and West Bengal, the contribution of revenue resources for plan expenditure became negative for the states. As can be seen from the Table 4.7, balance from current revenue as percentage of total plan expenditure is negative in nine out of thirteen years in Kerala and West Bengal, and seven out of thirteen years in Tamil Nadu. In Maharashtra, except 1985-86, contribution of revenue resources in total plan expenditure is positive and on an average more than one

fourth of the total plan expenditure is covered by the revenue receipts of the state.

Table 4.6: Plan and Non-plan Expenditure as a Percentage of Revenue Receipts (percent)

Year	Plan Expenditure/ Revenue Receipts				Non-plan Expenditure/ Revenue Receipts			
	KE	MAH	TN	WB	KE	MAH	TN	WB
1980-81	42.31	36.21	26.72	39.76	91.27	91.99	105.02	102.43
1981-82	34.52	38.35	38.13	38.68	93.13	91.10	101.02	111.54
1982-83	33.24	40.21	38.00	40.24	89.73	86.11	98.57	110.00
1983-84	46.43	42.86	39.63	35.52	95.06	87.65	100.60	106.71
1984-85	39.25	42.94	36.79	30.57	100.46	95.10	95.64	123.39
1985-86	33.54	33.31	32.79	33.12	110.03	104.00	92.63	93.81
1986-87	35.57	38.17	34.84	34.63	108.30	90.63	90.59	105.12
1987-88	33.27	38.54	41.53	44.86	108.65	85.67	94.18	90.47
1988-89	30.16	39.26	33.22	41.83	102.72	89.34	99.13	86.38
1989-90	33.10	36.41	31.69	41.95	107.98	92.92	101.49	97.79
1990-91	31.61	33.70	28.47	36.46	108.90	90.13	101.67	110.24
1991-92	28.77	32.56	23.58	30.42	111.66	92.30	115.95	104.41
1992-93	28.89	31.27	25.37	36.42	107.67	92.82	104.56	113.14

Note: The abbreviations for states are same as in Table 3.2.
Source: Same as in Table 3.7.

Table 4.7: Revenue Resources Available for Plan Expenditure as a percentage of Total Plan Expenditure (percent)

Year	KE	MAH	TN	WB
1980-81	20.63	22.12	-18.77	-6.12
1981-82	19.91	23.20	-2.67	-29.85
1982-83	30.88	34.54	3.75	-24.84
1983-84	10.65	28.82	-1.51	-18.90
1984-85	-1.17	11.40	11.84	-76.51
1985-86	-29.91	-12.02	22.46	18.68
1986-87	-23.35	24.55	26.99	-14.78
1987-88	-26.00	37.18	14.01	21.25
1988-89	-9.03	27.16	2.61	32.56
1989-90	-24.12	19.44	-4.70	5.26
1990-91	-28.16	29.29	-5.87	-28.08
1991-92	-40.51	23.64	-67.62	-14.49
1992-93	-26.54	22.96	-17.96	-36.09

Note: The abbreviations for states are same as in Table 3.2.
Source: Same as in Table 3.7.

Table 4.8: Current Borrowing to Plan Expenditure Ratio
(percent)

Year	Kerala	Maharashtra	Tamil Nadu	West Bengal
1980-81	43.97	48.03	56.84	72.17
1981-82	49.25	51.62	40.38	92.20
1982-83	78.12	50.44	47.41	110.61
1983-84	73.36	47.37	50.02	110.92
1984-85	77.27	58.42	44.63	105.46
1985-86	136.54	75.01	56.71	96.41
1986-85	86.15	58.20	52.23	88.22
1987-88	101.06	46.90	21.10	61.61
1988-89	106.74	46.99	60.70	64.81
1989-90	118.14	51.98	66.17	78.42
1990-91	117.88	58.87	81.92	103.73
1991-92	129.54	60.52	79.78	94.48
1992-93	122.39	49.23	85.79	71.64

Source: Same as in Table 3.7.

Decline in the revenue resources for plan expenditure forced the states to resort to higher borrowing to finance the plan. Apart from this, since total revenue earning became insufficient to meet even the non-plan expenditures, borrowing is resorted to cover the non-plan expenditure gap also. As can be seen from the Table 4.8, during 1980-81 to 1984-85, current borrowing as a percentage of total plan expenditure increased from 43.97 percent to 77.27 percent in Kerala. From 1985-86 onwards gross current borrowing became higher than the total plan expenditure of the state which means that borrowing is resorted to cover the growing non-plan expenditure gap of the state. In West Bengal, also current borrowing plan expenditure ratio is quite high and in some of the years, current borrowing became higher than the total plan expenditure of the states. In Maharashtra, current borrowing as a percentage of total plan expenditure fluctuated between 48 to 60 percent. In Tamil Nadu, though the ratio between current borrowing and plan expenditure is below hundred as it is in Maharashtra, the ratio showed a sharp increase after mid-eighties.

Developmental and Non-Developmental Expenditure

The analysis of expenditure pattern, under developmental and non-developmental heads is important because such classification helps to understand the trends in the productive spending in the economy by the government. In fact this distinction is much more meaningful than that between plan and non-plan expenditures. As it was pointed out earlier in the chapter that all non-plan expenditures cannot be considered non-developmental, therefore, the mere fact that a state spends an increasingly higher proportion of its total expenditure on non-plan heads cannot be taken to imply that it is going slow on productive spending. If, on the other hand a state is spending an increasing proportion of its total on developmental accounts, even though they do not form part of its plan, it may be contributing to the productive capacity of the state's economy. But if the reverse happens, i.e., if the developmental expenditure decreases in relative terms, productive spending in the state economy will decline, which will hamper income and revenue earning of the state.

In order to meet the increasing developmental needs of the state governments, the share of developmental expenditure in total expenditure should increase. However, the composition of total expenditure under developmental and non-developmental heads in Table 4.9 show that during 1981-82 to 1992-93, the share of developmental expenditure in total expenditure declined in Kerala and West Bengal. In Maharashtra and Tamil Nadu, share of developmental expenditure in total expenditure fluctuated between 76.42 percent to 69.82 percent and 80.91 percent to 74.29 percent

grew at the highest rate of 19.18 percent per annum in Kerala, followed by West Bengal (17.22 percent), Tamil Nadu (16.92 percent) and Maharashtra (16.50 percent). In Maharashtra, and Tamil Nadu, both developmental and non-developmental expenditure grew almost at the same rate. Except Kerala, rate of growth of non-developmental expenditure during this period was below the all state average rate of growth of the same. However, rate of growth of developmental expenditure in all four states was below the all state average rate of growth of developmental expenditure.

Table 4.9: Share of Developmental and Non-Developmental Expenditure in Total Expenditure (percentage)

Year	Developmental expenditure					Non-Developmental expenditure				
	KE	MH	TN	WB	AS	KE	MH	TN	WB	AS
1981-82	77.73	71.95	79.77	77.52	76.62	22.27	28.05	20.23	22.48	23.38
1982-83	75.60	72.75	80.45	75.84	77.83	24.40	27.25	19.55	24.16	22.17
1983-84	75.93	73.66	80.01	75.34	77.70	24.07	26.34	19.99	24.66	22.30
1984-85	74.63	71.28	79.60	75.83	77.02	25.37	28.72	20.40	24.17	22.98
1985-86	75.85	72.70	78.41	74.69	77.74	24.15	27.30	21.59	25.31	23.26
1986-87	71.44	76.42	77.54	74.57	76.65	28.56	23.58	22.46	25.43	23.35
1987-88	69.13	75.22	79.01	72.98	76.11	30.87	24.78	20.99	27.02	23.89
1988-89	69.55	74.49	77.18	72.06	76.73	30.45	25.51	22.82	27.94	25.27
1989-90	69.13	75.32	76.98	72.37	74.41	30.87	24.68	23.02	27.63	26.59
1990-91	68.65	74.35	76.01	72.39	73.71	31.35	25.65	23.99	27.61	26.29
1991-92	66.33	72.40	80.91	69.63	73.32	33.67	27.60	19.09	30.37	26.68
1992-93	67.82	69.82	74.29	71.25	71.57	32.18	30.18	25.71	28.75	28.43
Growth Rate	13.10	14.32	14.09	14.01	15.96	19.18	16.50	16.92	17.22	18.71

Note: Growth rates relate to annual compound change. The abbreviations for states are same as in Table 3.2.

Source: Same as in Table 3.7.

One of the major reasons behind the rapid growth of non-developmental expenditure during the last decade was the increasing debt servicing obligations of the state. An analysis of the composition and growth of developmental and non-developmental expenditure in revenue and capital account would bring out how debt

servicing obligation was taking away increasing proportion of revenue and capital expenditure.

The composition of developmental and non-developmental expenditures in revenue account is shown in Table 4.10. As can be seen from the Table, between 1980-81 to 1992-93, developmental expenditure as a percentage of total expenditure in revenue account declined sharply from 75.93 percent to 63.79 percent in Kerala and 70.76 percent 63.64 percent in West Bengal. However, in Maharashtra, developmental expenditure as a percentage of total revenue expenditure did not show much of a decline rather increased in different years except few years of exceptions. In Tamil Nadu also secular trend of decline of the same ratio was not observed. During this period, in Tamil Nadu, developmental expenditure as a percentage of total expenditure in revenue account fluctuated between 72 to 78 percent. If we compare four states we are studying with the all state average, we observe that pattern observed in Kerala and West Bengal is in conformity with that of the all state average. Like in Kerala and West Bengal, the all state average ratio sharply declined during this period from 71.85 percent to 66.46 percent.

Non-developmental expenditure in revenue account as a percentage of total revenue expenditure increased from 23.20 percent to 35.25 percent in Kerala and 25.34 percent to 33.45 percent in West Bengal. In Maharashtra, the share of non-developmental expenditure declined from 29.07 percent in 1980-81 to 23.35 percent in 1990-91. Since then it has exhibited a trend to rise. In Tamil Nadu also, non-developmental expenditure started showing a trend to increasing

Table 4.10: Composition of Developmental and Non-developmental Expenditure in Revenue Account (percent)

	DE/TE	NDE/TE	IP/TE	ONDE/TE
Kerala				
1980-81	75.93	23.20	6.86	16.34
1981-82	73.87	25.64	7.59	18.05
1982-83	71.57	28.04	7.86	20.18
1983-84	70.66	29.06	9.24	19.82
1984-85	70.17	29.59	10.65	18.94
1985-86	72.15	27.60	8.80	18.80
1986-87	66.75	33.13	10.71	22.42
1987-88	64.82	35.12	11.97	23.15
1988-89	65.25	33.75	11.86	21.89
1989-90	63.54	35.19	12.75	22.44
1990-91	63.81	35.05	12.06	22.99
1991-92	61.22	37.95	15.03	22.92
1992-93	63.79	35.25	13.85	21.40
Maharashtra				
1980-81	68.19	29.07	5.89	23.18
1981-82	66.70	28.63	6.82	21.81
1982-83	67.72	27.84	6.67	21.16
1983-84	69.62	25.73	6.48	19.24
1984-85	67.90	27.32	6.79	20.54
1985-86	69.56	25.98	7.19	18.79
1986-87	73.44	22.27	9.16	13.10
1987-88	72.68	22.83	9.93	12.90
1988-89	71.76	23.97	10.03	13.94
1989-90	72.88	23.65	9.88	13.77
1990-91	72.55	23.35	10.44	12.91
1991-92	69.66	27.23	11.84	15.38
1992-93	66.48	29.89	12.20	17.69
Tamil Nadu				
1980-81	73.25	22.22	8.06	14.16
1981-82	75.78	21.00	6.88	14.12
1982-83	76.90	20.21	6.53	13.67
1983-84	75.35	20.72	6.74	13.98
1984-85	74.74	20.69	6.67	14.02
1985-86	73.27	22.17	6.67	15.50
1986-87	72.92	23.58	7.22	16.36
1987-88	75.01	22.18	7.13	15.05
1988-89	73.14	24.05	8.17	15.88
1989-90	73.20	24.17	7.79	16.38
1990-91	72.66	24.91	8.12	16.79
1991-92	78.26	19.02	6.45	12.58
1992-93	71.80	26.35	9.82	16.53

Table 4.10 contd...

	DE/TE	NDE/TE	IP/TE	ONDE/TE
West Bengal				
1980-81	70.76	25.34	9.83	15.51
1981-82	70.99	25.24	8.97	16.26
1982-83	70.07	26.16	10.51	15.65
1983-84	69.97	26.52	10.63	15.88
1984-85	71.65	25.56	11.38	14.19
1985-86	68.85	28.15	12.17	15.98
1986-87	68.70	28.10	12.36	15.74
1987-88	67.18	29.63	13.02	16.61
1988-89	66.30	30.51	12.92	17.59
1989-90	66.47	30.73	13.34	17.39
1990-91	67.40	30.15	12.23	17.92
1991-92	63.89	33.53	15.53	17.99
1992-93	63.64	33.45	16.73	16.72
All States				
1980-81	71.85	26.75	8.37	18.38
1981-82	71.69	27.05	8.53	18.52
1982-83	71.81	26.96	8.53	18.43
1983-84	72.05	26.66	8.35	18.31
1984-85	71.50	27.22	8.83	18.40
1985-86	71.38	27.38	9.09	18.29
1986-87	71.16	27.66	10.86	16.79
1987-88	71.00	27.91	10.95	16.96
1988-89	69.93	29.00	11.45	17.55
1989-90	68.23	30.76	12.02	18.74
1990-91	68.61	30.29	12.15	18.13
1991-92	68.31	30.51	12.78	17.73
1992-93	66.46	32.44	14.17	18.27

Note: TE = Total Expenditure, DE = Developmental Expenditure, IP = Interest Payment, NDE = Non-developmental Expenditure, ONDE = Other Non-developmental Expenditure. Source: Same as in Table 3.7.

from 1987-88 onwards. The share of non-developmental expenditure in total revenue account expenditure of Maharashtra and Tamil Nadu are lower than that of Kerala and West Bengal. The decline in the share of developmental expenditure in total and the corresponding increase in the share of non-developmental expenditure in total would eventually create severe strains on the state finances.

One important point to be noted here is that although the share of non-developmental expenditure in total expenditure declined in most

of the years in Maharashtra, the share of interest payment in total revenue expenditure showed a sharp increase from 5.89 percent to 12.20 percent in the state. However, other non-developmental expenditures (excluding interest payment) in revenue account of Maharashtra showed a decline from 23.18 percent to 17.69 percent during this period. In West Bengal also, the share of other non-developmental expenditures (excluding interest payment) did not show much of an increase, whereas interest payment as a percentage of revenue expenditure increased sharply from 9.83 to 16.73 percent. Thus, like Maharashtra, in West Bengal also, increase in the share of non-developmental expenditures in total revenue expenditure is mainly because of the increase in the share of interest payment obligations. As far as Kerala is concerned, the share of both interest payment and other non-developmental expenditures (excluding interest payment) increased sharply during this period. In Tamil Nadu, the share of interest payment in total revenue expenditure remained far below from other three states and fluctuated in a range of 6 to 9 percent. The share of other non-developmental expenditures (excluding interest payment) in revenue account also fluctuated in a narrow range of 14.16 percent to 16.79 percent.

Among the various components of expenditures it is the interest payment which grew at the highest rate on the revenue account in all the four states. As can be seen from the Table 4.11, during 1980-81 to 1992-93, interest payment grew at a rate of more than 20 percent per annum in all four states, whereas other non-developmental expenditures grew at a lower rate of 18.28 percent in Kerala, 14.23 percent in Maharashtra, 18.94 percent in Tamil Nadu

and 15.76 percent in West Bengal. Another disturbing aspect of the whole situation is that developmental expenditure grew at a far lower rate than the total non-developmental expenditures of Kerala, Tamil Nadu and West Bengal. In Maharashtra, difference in the growth of developmental and non-developmental expenditure is marginal. Among the four states, above the all state average rate of growth is of Tamil Nadu. However, total non-developmental expenditure grew close to all state average in Kerala and Tamil Nadu. In Maharashtra and West Bengal, non-developmental expenditure growth is lower than the all state average.

Table 4.11: Annual Compound Growth of Developmental and Non-Developmental Expenditures in Revenue Account during 1980-81 to 1992-93

States	(percent)				
	TE	DE	TNDE	IP	ONDE
Kerala	16.48	15.27	19.27	21.05	18.28
Maharashtra	16.31	16.01	16.72	22.56	14.23
Tamil Nadu	18.62	18.66	19.84	21.60	18.94
West Bengal	15.24	14.24	17.73	20.31	15.76
All States	17.28	16.56	19.12	22.69	17.11

Note: The abbreviations of column headings are given in Table 4.10.
Source: Same as in Table 3.7.

The preceding analysis of the developmental and non-developmental expenditures in revenue account in terms of its composition and growth has shown that increase in revenue account expenditure during the last decade, has been mainly propelled by the non-developmental expenditures, especially interest payment, of the state governments. Except for Kerala, the increase in the share of other non-developmental expenditures (excluding interest payment) in other three states was modest.

Apart from the strain of interest payment on revenue account, the expansion of debt also places severe pressure on capital account arising from repayment of principal. Repayment of principal is absorbing increasing share of total capital disbursement of the states. The repayment obligation of all states taken together increased from Rs. 297 crore or 3.7 percent of the capital disbursement during 1980-81 to Rs. 5085.72 crore or 21.89 percent of the total capital disbursement of the states during 1992-93. In order to look into the capital account position of the state governments and the impact of repayment on the capital budget of the state, and how it contributed to the growth of non-developmental expenditure in the capital account, an analysis of the composition and the growth of developmental and non-developmental expenditure in capital account follows.

As can be seen from the Table 4.12, between 1980-81 to 1992-93, developmental expenditures in capital account as a percentage of total capital disbursement declined sharply in Kerala, Maharashtra and in Tamil Nadu. In West Bengal, developmental expenditures as a percentage of total capital disbursement fluctuated in a wide range of 43.65 percent to 75.12 percent. Decline in developmental expenditure in the capital account is mainly because of increase in the share of repayment¹. During this period, repayment as a percentage of total capital disbursement increased from 13.61 to 39.71 percent in Kerala, from 10.44 to 19.14 percent in Maharashtra and 12.03 to 27.96 percent in Tamil Nadu. In West Bengal, though repayment is more than one third of the total capital disbursement

¹ Repayment of principal includes 'Repayment of Loans and Advances from the Central Government' and 'Discharge of Internal Debt'.

Table 4.12: Composition of Developmental and Non-Developmental Expenditure in Capital Account during 1980-81 to 1992-93 (percent)

	DE/TCD	NDE/TCD	REP/TCD	OND/TCD
Kerala				
1980-81	82.86	17.14	13.61	3.53
1981-82	50.08	49.92	47.41	2.51
1982-83	73.76	26.24	22.76	3.48
1983-84	76.71	23.29	20.64	2.65
1984-85	53.02	46.98	44.70	2.29
1985-86	55.76	44.24	41.33	2.91
1986-87	52.94	47.06	44.40	2.66
1987-88	56.01	43.99	42.35	1.64
1988-89	57.06	42.94	41.15	1.79
1989-90	61.96	38.04	36.89	1.15
1990-91	69.84	30.16	28.52	1.64
1991-92	57.40	42.60	41.52	1.09
1992-93	58.35	41.65	39.71	1.94
Maharashtra				
1980-81	86.94	13.06	10.44	2.62
1981-82	82.35	17.65	15.20	2.45
1982-83	82.55	17.45	14.71	2.74
1983-84	81.68	18.32	16.18	2.15
1984-85	76.43	23.57	20.87	2.70
1985-86	79.64	20.36	18.75	1.61
1986-87	77.45	22.55	20.12	2.43
1987-88	79.52	20.48	17.33	3.15
1988-89	81.09	18.91	17.21	1.70
1989-90	82.47	17.53	15.76	1.77
1990-91	79.71	20.29	16.86	3.43
1991-92	79.34	20.66	19.46	1.20
1992-93	79.36	20.64	19.14	1.50
Tamil Nadu				
1980-81	82.15	17.85	12.03	5.82
1981-82	78.90	21.10	13.33	7.78
1982-83	75.36	24.64	17.20	7.43
1983-84	72.74	27.26	20.25	7.01
1984-85	68.61	31.39	24.29	7.11
1985-86	68.17	31.83	23.51	8.32
1986-87	76.38	23.62	15.64	7.98
1987-88	72.22	27.78	23.48	4.30
1988-89	71.37	28.63	24.56	4.07
1989-90	71.25	28.75	24.98	3.77
1990-91	67.23	32.77	28.50	4.27
1991-92	71.48	28.52	24.88	3.64
1992-93	68.13	31.87	27.96	3.90

Table 4.12 contd....

	DE/TCD	NDE/TCD	REP/CD	OND/TCD
West Bengal				
1980-81	62.99	37.01	34.74	2.27
1981-82	58.67	41.33	39.05	2.28
1982-83	59.61	40.39	38.03	2.36
1983-84	60.32	39.68	36.63	3.05
1984-85	43.65	56.35	53.77	2.58
1985-86	52.78	47.22	44.96	2.27
1986-87	53.73	46.27	43.49	2.77
1987-88	49.50	50.50	47.91	2.58
1988-89	58.42	41.58	39.63	1.95
1989-90	66.56	33.44	31.34	2.11
1990-91	69.91	30.09	28.74	1.35
1991-92	62.02	37.98	36.46	1.52
1992-93	75.12	24.88	24.14	0.74
All States				
1980-81	39.82	23.38	20.82	2.56
1981-82	43.21	23.50	20.58	2.91
1982-83	42.73	22.30	19.32	2.98
1983-84	42.52	25.05	21.73	3.32
1984-85	41.60	28.30	25.43	2.87
1985-86	44.27	28.44	25.74	2.70
1986-87	44.08	27.45	23.99	3.46
1987-88	43.48	27.67	24.41	3.25
1988-89	46.15	27.69	24.60	3.08
1989-90	46.65	25.33	22.79	2.54
1990-91	46.40	24.84	22.44	2.40
1991-92	45.35	26.05	23.84	2.21
1992-93	46.60	24.45	21.89	2.56

Note: CD = Capital Disbursement, DE = Developmental Expenditure, NDE = Non-Developmental Expenditure, OND = Other Non-Developmental Expenditure.

Source: Same as in Table 3.7.

in all most all the years except 1990-91 and 1992-93, it did not show definite increasing or decreasing trend. It fluctuated in a wide range of 53.77 to 24.14 percent. Other non-developmental expenditures (excluding repayment) in the capital account had a very low share and showed a declining trend in all four states.

The rates of growth of different components of expenditure in capital account, as shown in Table 4.13, reveals that it is the repayment which grew at the highest rate in Kerala (21.97 percent), followed by Maharashtra (17.24 percent). In West Bengal and Tamil

Nadu, repayment grew at a considerably lower rate than Kerala and Maharashtra. Increase in the total non-developmental expenditure growth in capital account is mainly because of the rapid growth of repayment. States with relatively low growth of repayment has relatively low growth of non-developmental expenditures in capital account. If we compare the rate of growth of repayment with the all state average of the same, we observe that rate of growth of repayment is above the all state average in Kerala and Maharashtra and below the average in Tamil Nadu and West Bengal. Another point to be noted here is that like the developmental expenditure in revenue account, developmental expenditure in the capital account grew at a lower rate in three out of four states. Only in West Bengal, developmental expenditure grew at a higher rate than the non-developmental expenditure in the capital account.

Table 4.13: Annual Compound Growth of Different Components of Expenditure in Capital Account during 1980-81 to 1992-93 (percent)

States	CD	DE	NDE	REPAYMENT	ONDE
Kerala	11.74	8.61	20.53	21.97	8.49
Maharashtra	10.38	9.62	15.83	17.24	6.48
Tamil Nadu	7.11	6.56	8.46	9.39	3.86
West Bengal	11.60	14.09	7.20	7.43	2.05
All States	11.21	11.51	13.20	13.63	10.25

Note: The column headings are given in Table 4.12.
Source: Same as in Table 3.7.

Rapid growth of debt servicing obligations and corresponding increase in total non-developmental expenditure growth reduced the availability of resources for income generating expenditures of the state. The share of developmental expenditure under different functional heads of capital account showed a decline during this period. The share of income generating expenditures like 'Capital Outlay for Developmental Purposes' and 'Loans and advances by the

State governments' has declined over the years. Decline in income generating expenditure hampered the earning of the state in a major way. Between 1980-81 and 1992-93, 'Loans and Advances by the State Government' in total capital disbursement declined from 38 percent to 24.65 percent in Maharashtra, 66.82 percent to 36.45 percent in Tamil Nadu and 39.63 percent to 22.08 percent in West Bengal. During this period, the share of 'Loans and Advances by the state Governments' for developmental purposes in Kerala remained close to 20 percent. Though constancy is maintained in Kerala regarding the 'loans and advances' for developmental purposes, the share of it in total capital disbursement is much lower than other states. Decline in the 'Loans and advances by the State Government' for developmental purposes adversely affected the 'interest receipts' earning of the state governments, thereby increased the net interest burden.

Financing of Developmental Expenditure

As far as the financing of developmental expenditure is concerned, it can be seen that increasing non-developmental expenditure at the state level reduced the availability of revenue resources for developmental expenditure. The Table 4.14.a shows that the ratio between non-developmental expenditure and current revenue receipts increased in Kerala sharply which reduced the net revenue available for developmental purposes.

As can be seen from Table 4.14.b, during 1980-81 to 1992-93, net revenue available for developmental (after netting out for non-developmental expenditure) purposes as a percentage of current revenue declined drastically in Kerala by more than 14 percentage

points, followed by West Bengal (by more than 9 percentage points). In Maharashtra and Tamil Nadu, revenue resources available for developmental expenditure did not show much of decline except in few years. Decline in non-debt resources to finance developmental expenditure resulted in the increasing borrowing by the states to finance their developmental expenditure.

Table 4.14.a: Non-Developmental Expenditure as a Percentage of Current Revenue

Year	KE	MAH	TN	WB
1980-81	26.08	31.85	25.51	28.06
1981-82	24.29	34.30	25.68	29.05
1982-83	28.52	32.98	24.34	32.34
1983-84	32.14	32.89	24.97	31.58
1984-85	31.05	37.63	24.99	32.16
1985-86	30.10	35.87	24.68	27.94
1986-87	37.50	28.80	26.27	31.10
1987-88	39.92	29.49	26.70	31.61
1988-89	37.10	31.53	28.33	32.23
1989-90	39.83	30.89	28.87	35.48
1990-91	41.57	30.66	29.40	37.92
1991-92	43.09	32.80	25.84	36.73
1992-93	40.76	37.18	31.99	37.71

Table 4.14.b: Developmental Expenditure as a Percentage of Current Revenue

Year	KE	MAH	TN	WB
1980-81	73.92	68.15	74.49	71.94
1981-82	75.71	65.70	74.32	70.95
1982-83	71.48	67.02	75.66	67.66
1983-84	67.86	67.11	75.03	68.42
1984-85	68.95	62.37	75.01	67.84
1985-86	69.90	64.13	75.32	72.06
1986-87	62.50	71.20	73.73	68.90
1987-88	60.08	70.51	73.30	68.39
1988-89	62.90	68.47	71.67	67.77
1989-90	60.17	69.11	71.13	64.52
1990-91	58.43	69.34	70.60	62.08
1991-92	56.91	67.20	74.16	63.27
1992-93	59.24	62.82	68.01	62.29

Note: The abbreviations for the states are same as in Table 3.2.
Source: Same as in Table 3.7.

Table 4.15: Current Borrowing and Developmental Expenditure Ratio (percent)

Year	KE	MAH	TN	WB
1980-81	18.05	18.82	15.35	29.58
1981-82	20.05	22.50	15.20	35.59
1982-83	29.38	23.03	17.99	43.84
1983-84	33.60	22.07	19.83	40.83
1984-85	33.21	26.86	16.84	31.96
1985-86	48.46	26.15	20.74	38.73
1986-87	32.66	23.80	20.07	33.51
1987-88	37.62	20.20	8.72	32.37
1988-89	38.00	20.04	21.05	32.62
1989-90	43.84	20.08	21.71	35.41
1990-91	40.93	22.32	25.04	38.04
1991-92	43.89	22.90	17.18	34.13
1992-93	41.16	17.90	23.54	27.92

Note: The abbreviations for the states are same as in Table 3.2.
Source: Same as in Table 3.7.

As can be seen from the Table 4.15, between 1980-81 and 1992-93, current borrowing as a percentage of developmental expenditure increased from 18.05 percent to 41.16 percent in Kerala. In Maharashtra, Tamil Nadu and West Bengal, since revenue earning covered almost 70 percent of the total developmental expenditures of the states, the ratio between current borrowing and developmental expenditure in these three states are much lower than that of Kerala.

Summary

States' expenditure patterns under plan and non-plan classification showed that the share of non-plan expenditure in total is increasing. Similarly, the analysis of total expenditure under developmental and non-developmental classification showed that the share of non-developmental expenditure in total is also increasing. Increasing non-plan expenditure reduced the revenue resources for plan expenditure and states had to borrow to finance their plan expenditure. Similarly, increasing non-developmental

expenditure reduced the revenue resources for developmental expenditure which had to be financed by borrowing. Among the four states, the increase in both current borrowing to plan expenditure ratio and current borrowing to developmental expenditure ratio were very sharp in Kerala. Incidence of the burden of interest payment in the revenue account and the burden of repayment on the capital account remained a major problem for all the four states.

CHAPTER V

GROWING REVENUE DEFICITS OF THE STATES

Introduction

Having examined the patterns of expenditure of the state governments, we shall turn our attention to the revenue receipt of the states. An important feature of the fiscal developments during the 1980s has been the increasing revenue deficit of the states. In the present chapter, we shall concentrate on factors affecting the revenue receipts of the state governments. Since major revenue account receipts of state governments comprise of its own tax and non-tax revenues and revenue account transfer from the centre to the state governments, it is necessary to analyse how the revenues from different sources grew over the years. We start with the overall budgetary trends in the four states.

Budgetary Trends

The budgetary trends shown in Table 5.1.a, Table 5.1.b, Table 5.1.c and Table 5.1.d reveal both revenue as well as capital account problems. Continuous deficits in the revenue account reflects worsening fiscal situation of the states. Revenue account of Kerala showed a surplus of Rs. 9598 lakhs and Rs. 2678 Lakhs in 1981-82 and 1982-83 respectively. But in 1983-84, there was a revenue deficit of Rs. 5820 lakhs, which has tended to increase since then reaching an all time high of Rs. 48509 lakhs in 1992-93. Not only in absolute term, as a percentage of revenue receipts, revenue expenditure and SDP also, the revenue deficit has tended to rise. As can be seen from the Table 5.2, in 1980-81, deficit in the revenue account of Kerala as a percentage revenue receipts,

	Table 5.1.a : Budgetary Trend in Kerala											(Rs. in lakhs)	
KERALA	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93 (R.E.)
TOTAL REVENUE RECEIPTS	64038	85048	81017	93424	112499	137117	150253	158609	189706	204764	240293	285212	336616
TOTAL REVENUE EXPENDITURE	66760	75450	78339	99244	113866	144533	165477	178068	206100	229809	282495	321645	385125
REVENUE SURPLUS(+)/DEFICITS(-)	-2722	9598	2678	-5820	-1367	-7416	-15224	-19459	-16394	-25045	-42202	-36433	-48509
CAPITAL DISBURSEMENT (EXCLUDING LOAN REPAID)	16227	17415	16444	26284	23953	26646	32028	27118	27065	37288	39421	46126	44955
CAPITAL RECEIPTS (EXCLUDING BORROWING)	2664	2861	672	4640	2837	9014	2773	12520	-3378	1610	6160	4198	4103
CAPITAL ACCOUNT SURPLUS(+)/(-) DEFICIT	-13563	-14554	-15772	-21644	-21116	-17632	-29255	-14598	-30443	-35678	-33261	-41928	-40852
REMITTENCES	-555	-2340	-3045	-4744	-4687	932	-2186	483	4587	3177	-824	-2454	369
TOTAL SURPLUS(+)/(-) OR DEFICITS	-16840	-7296	-16139	-32208	-27170	-24116	-46665	-33574	-42250	-57546	-76287	-80815	-88992
FINANCED BY:													
1.NET BORROWING(a+b+c)	9358	-1237	16190	25169	14764	37111	27372	33413	42147	58279	73821	73559	89432
a.NET INTERNAL DEBT	2144	2637	3068	3471	3785	7748	8908	10465	14068	20974	17492	20947	24702
b.NET LOANS AND ADVANCES FROM CENTRAL GOVT.	5608	-5423	6915	14497	4087	18531	11344	12035	12121	15869	26984	26911	39009
c.PROVIDENT FUNDS ETC.(NET)	1606	1549	6207	7201	6892	10832	7120	10913	15958	21436	29345	25701	25721
2.INCREASE(+)/DECREASE(-)IN CASH BALANCES	-4040	336	-5384	-335	485	-21064	-7312	3208	-2781	733	1155	-5888	432
3.WITHDRAWALS FROM(-)/ADDITIONS(+) TO CASH BALANCE INVESTMENT ACCOUNT	-3442	-684	-2	-5	1	11719	-11637	-7	0	0	50	50	8
4.INCREASE(+)/DECREASE(-)IN WAYS AND MEANS ADVANCES/OVERDRAFTS FROM RBI	0	-8185	5437	-6699	-12892	22340	-344	-3362	2678	0	-3671	-1418	0
5.TOTAL FINANCING(1-2-3-4)	16840	7296	16139	32208	27170	24116	46665	33574	42250	57546	76287	80815	88992

Source: Same as in Table 3.7

Table 5.1.b: Budgetary Trend in Maharashtra

	(Rs. in lakhs)												
MAHARASTRA	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93 (R.E.)
TOTAL REVENUE RECEIPTS	203806	238540	283820	325198	366784	417415	497823	557821	629985	752865	869902	977259	1091259
TOTAL REVENUE EXPENDITURE	191704	223803	262808	318122	387984	449080	497878	550445	654065	790255	875367	1004872	1148641
REVENUE SURPLUS(+)/DEFICITS(-)	12102	14737	21012	7076	-21200	-31665	-55	7376	-24080	-37390	-5465	-27613	-57382
CAPITAL DISBURSEMENT (EXCLUDING LOAN REPAID)	62310	72677	81635	89081	93631	100809	114473	117758	129232	154548	167825	161304	201533
CAPITAL RECEIPTS (EXCLUDING BORROWING)	18976	22802	22949	29404	41534	53916	40795	41921	77060	105916	62325	133436	127663
CAPITAL ACCOUNT SURPLUS(+)/(-) DEFICIT	-43334	-49875	-58686	-59677	-52097	-46893	-73678	-75837	-52172	-48632	-105500	-27868	-73870
REMITTENCES	-2517	-4639	-3022	-76	3069	-2354	-4024	3469	3766	-5918	-4912	-5912	22089
TOTAL SURPLUS(+)/(-) OR DEFICITS	-33749	-39777	-40696	-52677	-70228	-80912	-77757	-64992	-72486	-91940	-115877	-61393	-109163
FINANCED BY:													
1.NET BORROWING(a+b+c)	28178	34911	43485	48821	67304	81032	81746	76156	89369	113609	138560	153596	120291
a.NET INTERNAL DEBT	836	4439	3458	1378	4225	4107	3603	4661	6638	9719	20679	15803	19999
b.NET LOANS AND ADVANCES FROM CENTRAL GOVT.	26573	26468	34106	42228	56547	71635	72111	64353	68513	84728	101519	121545	82343
c.PROVIDENT FUNDS ETC.(NET)	769	4004	5921	5215	6532	5290	6032	7142	14218	19162	16362	16248	17949
2.INCREASE(+)/DECREASE(-)IN CASH BALANCES	-1946	1725	-6869	-1355	-5637	-3706	3109	349	4718	-12322	5714	4308	26949
3.WITHDRAWALS FROM(-)/ADDITIONS(+) TO CASH BALANCE INVESTMENT ACCOUNT	-3625	-759	3826	-2501	2713	2879	880	10814	12165	33937	16969	87895	-15821
4.INCREASE(+)/DECREASE(-)IN WAYS AND MEANS ADVANCES/OVERDRAFTS FROM RBI	0	-5832	5832	0	0	947	0	1	0	54	0	0	0
5.TOTAL FINANCING(1-2-3-4)	33749	39777	40696	52677	70228	80912	77757	64992	72486	91940	115877	61393	109163

Source: Same as in Table 3.7.

Table 5.1.c: Budgetary Trend in Tamil Nadu

	(Rs. in lakhs)												
TAMIL NADU	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93 (R.E.)
TOTAL REVENUE RECEIPTS	127996	144155	167802	196251	222751	263832	287931	309189	348886	425157	508788	677566	666121
TOTAL REVENUE EXPENDITURE	115225	135989	157608	191080	221034	244975	277570	337481	376304	473079	564129	867952	766982
REVENUE SURPLUS(+)/DEFICITS(-)	12771	8166	10194	5171	1717	18857	10361	-28292	-27418	-47922	-55341	-190386	-100861
CAPITAL DISBURSEMENT (EXCLUDING LOAN REPAYD)	46970	57058	60454	69119	59478	65729	66662	62844	64460	69872	70070	69122	71566
CAPITAL RECEIPTS (EXCLUDING BORROWING)	22257	36495	27520	36359	31597	26883	20160	76623	35498	46062	26559	155318	50579
CAPITAL ACCOUNT SURPLUS(+)/(-) DEFICIT	-24713	-20563	-32934	-32760	-27881	-38846	-46502	13779	-28962	-23810	-43511	86196	-20987
REMITTENCES	276	20	-307	97	504	466	139	310	133	-409	1439	-22423	1202
TOTAL SURPLUS(+)/(-) OR DEFICITS	-11666	-12377	-23047	-27492	-25660	-19523	-36002	-14203	-56247	-72141	-97413	-126613	-120646
FINANCED BY:													
1.NET BORROWING(a+b+c)	13018	14651	19120	23893	22087	28851	35457	7807	49360	65880	90720	104586	117193
a.NET INTERNAL DEBT	2113	2322	2461	2808	3148	5022	9856	16988	17021	19738	20771	25044	28024
b.NET LOANS AND ADVANCES FROM CENTRAL GOVT.	11441	10705	12072	19249	16830	19631	20888	-15042	22817	33294	47996	64339	74603
c.PROVIDENT FUNDS ETC.(NET)	-536	1624	4587	1836	2109	4198	4713	5861	9522	12848	21953	15203	14566
2.INCREASE(+)/DECREASE(-)IN CASH BALANCES	-177	1284	-727	327	406	-2520	-417	4784	-7279	939	100	-23975	-3453
3.WITHDRAWALS FROM(-)/ADDITIONS(+) TO CASH BALANCE INVESTMENT ACCOUNT	893	990	-1884	0	0	2627	-128	-2516	0	0	0	1	0
4.INCREASE(+)/DECREASE(-)IN WAYS AND MEANS ADVANCES/OVERDRAFTS FROM RBI	636	0	-1316	-3926	-3979	9221	0	-8664	392	-7200	-6793	1947	0
5.TOTAL FINANCING(1-2-3-4)	11666	12377	23047	27492	25660	19523	36002	14203	56247	72141	97413	126613	120646

Source: Same as in Table 3.7.

Table 5.1.d: Budgetary Trend in West Bengal

(Rs. in lakhs)

WEST BENGAL	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93 (R.E.)
TOTAL REVENUE RECEIPTS	109170	122375	137926	153313	177860	234322	251017	291219	333742	349407	410923	467757	546539
TOTAL REVENUE EXPENDITURE	111521	131156	162170	173930	215054	226033	269748	302748	347463	397125	512811	532369	612471
REVENUE SURPLUS(+)/DEPICITS(-)	-2351	-8781	-24244	-20617	-37194	8289	-18731	-11529	-13721	-47718	-101888	-64612	-65932
CAPITAL DISBURSEMENT (EXCLUDING LOAN REPAYD)	28524	32693	27915	27961	27161	39305	45789	47578	48562	62588	64130	55079	122089
CAPITAL RECEIPTS (EXCLUDING BORROWING)	6305	2906	3432	6319	30698	2885	15146	21794	16897	15729	26538	24310	80829
CAPITAL ACCOUNT SURPLUS(+)/(-) DEFICIT	-22219	-29787	-24483	-21642	3537	-36420	-30643	-25784	-31665	-46859	-37592	-30769	-41260
REMITTENCES	-1084	-2141	-3423	-4039	14	-1422	-1458	-1992	-3553	45	769	-10064	0
TOTAL SURPLUS(+)/(-) OR DEPICITS	-25654	-40709	-52150	-46298	-33643	-29553	-50832	-39305	-48939	-94532	-138711	-105445	-107192
FINANCED BY:													
1.NET BORROWING(a+b+c)	16140	23652	44261	44234	25747	42727	41436	36717	58609	86385	129539	102848	103745
a.NET INTERNAL DEBT	1503	1372	2651	5596	7866	8259	8330	10869	13959	18757	17554	28210	29722
b.NET LOANS AND ADVANCES FROM CENTRAL GOVT.	12905	20245	39528	35155	15530	31840	29590	22075	40007	59932	89054	64422	64773
c.PROVIDENT FUNDS ETC. (NET)	1732	2035	2082	3483	2351	2628	3516	3773	4643	7696	22931	10216	9250
2.INCREASE(+)/DECREASE(-) IN CASH BALANCES	-3245	5779	-33879	811	1366	-9638	-5458	-8981	1545	-8269	10870	-2581	-3447
3.WITHDRAWALS FROM(-)/ADDITIONS(+) TO CASH BALANCE INVESTMENT ACCOUNT	0	0	0	0	0	3938	-3938	6393	8125	122	-20046	5963	0
4.INCREASE(+)/DECREASE(-) IN WAYS AND MEANS ADVANCES/OVERDRAFTS FROM RBI	-6270	-22836	25990	-2875	-9262	18874	0	0	0	0	0	-5979	0
5.TOTAL FINANCING(1-2-3-4)	25655	40709	52150	46298	33643	29553	50832	39305	48939	94532	138715	105445	107192

Source: Same as in Table 3.7.

revenue expenditure and SDP was 4.25 percent, 4.08 percent and 0.66 percent respectively. However, by the end of 1992-93, revenue deficit as a percentage of revenue receipts, revenue expenditure and SDP increased to 14.41 percent, 12.60 percent and 3.58 percent respectively. Maharashtra, experienced revenue account deficit from 1984-85, barring the year 1987-88. Though Maharashtra experienced revenue account deficit, revenue deficit as a percentage of revenue receipts, revenue expenditure and SDP, was not as high as in the other three states. In fact, revenue deficit as a percentage of SDP declined from 0.82 percent to 0.68 percent during 1984-85 to 1992-93. During this period, revenue deficit as a percentage of revenue receipts and revenue expenditure fluctuated between 2 to 5 percent in the state except 1985-86 when the corresponding figures increased by more than 7 percent. The state of Tamil Nadu plunged into revenue account deficit from 1987-88. In absolute term, deficit in the revenue account of Tamil Nadu increased from Rs. 28292 lakhs to Rs. 100861 lakhs. As a percentage of revenue receipts, revenue expenditure and SDP, it showed an increase from 9.15 to 15.14 percent, 8.38 to 13.15 percent and 1.37 to 2.47 percent respectively.

Among the four states, revenue account condition was worst in West Bengal with a continuous revenue deficit during 1980-81 to 1992-93. In absolute term, revenue account deficit increased from Rs. 2351 lakhs in 1980-81 to Rs. 65932 lakhs in 1992-93. As a percentage of revenue receipts, revenue expenditure and SDP, it showed a sharp increase from 2.15 to 12.06 percent, 2.11 to 10.76 percent and 0.25 to 1.43 percent respectively. Though surpluses were available in the revenue account for Kerala, Maharashtra and Tamil Nadu in some

Table 5.2: Surplus/Deficit in Revenue Account as a Proportion of Revenue Receipts, Revenue Expenditure and SDP

Surplus or Deficit as a Percentage of			
	Rev. Rec.	Rev.Exp.	SDP
Kerala			
1980-81	-4.25	-4.08	-0.66
1981-82	11.29	12.72	2.18
1982-83	3.31	3.42	0.52
1983-84	-6.23	-5.86	-0.97
1984-85	-1.22	-1.20	-0.20
1985-86	-5.41	-5.13	-1.03
1986-87	-10.13	-9.20	-1.79
1987-88	-12.27	-10.93	-2.06
1988-89	-8.64	-7.95	-1.57
1989-90	-12.23	-10.90	-2.15
1990-91	-17.56	-14.94	-3.21
1991-92	-12.77	-11.33	-2.50
1992-93	-14.41	-12.60	-3.58
Maharashtra			
1980-81	5.94	6.31	0.73
1981-82	6.18	6.58	0.79
1982-83	7.40	8.00	1.03
1983-84	2.18	2.22	0.30
1984-85	-5.78	-5.46	-0.82
1985-86	-7.59	-7.05	-1.07
1986-87	-0.01	-0.01	-0.00
1987-88	1.32	1.34	0.20
1988-89	-3.82	-3.68	-0.54
1989-90	-4.97	-4.73	-0.69
1990-91	-0.63	-0.62	-0.09
1991-92	-2.83	-2.75	-0.40
1992-93	-5.26	-5.00	-0.68
Tamil Nadu			
1980-81	9.98	11.08	1.58
1981-82	5.66	6.00	0.84
1982-83	6.08	6.47	1.02
1983-84	2.63	2.71	0.44
1984-85	0.77	0.78	0.13
1985-86	7.15	7.70	1.20
1986-87	3.60	3.73	0.60
1987-88	-9.15	-8.38	-1.37
1988-89	-7.86	-7.29	-1.19
1989-90	-11.27	-10.13	-1.93
1990-91	-10.88	-9.81	-1.78
1991-92	-28.10	-21.94	-5.32
1992-93	-15.14	-13.15	-2.47

Table 5.2 contd....

	Rev. Rec.	Rev. Exp.	SDP
West Bengal			
1980-81	-2.15	-2.11	-0.25
1981-82	-7.18	-6.70	-0.82
1982-83	-17.58	-14.95	-2.04
1983-84	-13.45	-11.85	-1.46
1984-85	-20.91	-17.30	-2.29
1985-86	3.54	3.67	0.47
1986-87	-7.46	-6.94	-0.97
1987-88	-3.96	-3.81	-0.53
1988-89	-4.11	-3.95	-0.53
1989-90	-13.66	-12.02	-1.63
1990-91	-24.79	-19.87	-2.90
1991-92	-13.81	-12.14	-1.60
1992-93	-12.06	-10.76	-1.43

Note: Rev. Rec. implies Revenue Receipts and Rev. Exp. implies Revenue Expenditure.

Source: Same as in Table 3.7.

years of the first half of the 1980s, all the states plunged into large revenue account deficits in the latter half of the 1980s. This trend is still continuing.

Increasing deficit in the revenue account resulted in the large scale use of borrowed funds for revenue expenditure purposes. The ratio between revenue account deficit and current net borrowing would indicate how much of the current borrowing was used to meet the revenue account deficit. As can be seen from Table 5.3, during 1980-81 to 1992-93, the deficit in the revenue account as a percentage of current net borrowing increased from 29.09 to 54.24 percent in Kerala and from 14.57 to 63.55 percent in West Bengal. Between 1984-85 to 1992-93, in Maharashtra, the share increased from 31.50 to 47.70 percent. In Tamil Nadu, by the end of 1992-93, 86.60 percent of the current net borrowing was used to meet revenue account deficit.

Table-5.3: Surplus/Deficit in the Revenue Account as a percentage of Current Net Borrowing (percent)

Year	KE	MAH	TN	WB
1980-81	-29.09	42.95	98.10	-14.57
1981-82	-775.91	42.21	55.74	-37.13
1982-83	16.54	48.32	53.32	-54.78
1983-84	-23.12	14.49	21.64	-46.61
1984-85	-9.26	-31.50	7.77	-144.46
1985-86	-19.98	-39.08	65.36	19.40
1986-87	-55.62	-0.07	29.22	-45.20
1987-88	-58.24	9.69	-362.39	-31.40
1988-89	-38.90	-26.94	-55.55	-23.41
1989-90	-42.97	-32.91	-72.74	-55.24
1990-91	-57.17	-3.94	-61.00	-78.65
1991-92	-49.53	-17.98	-182.04	-62.82
1992-93	-54.24	-47.70	-86.06	-63.55

Note: The abbreviations of the states are same as in Table 3.2.
Source: Same as in Table 3.7.

Now if we look at the capital account (Tables 5.1.a, 5.1.b, 5.1.c and 5.1.d), we observe that capital disbursement (mainly capital expenditure and loans and advances under various functional categories) exhibited a steady rising trend for all the four states, while capital receipts (excluding borrowing) lagged behind. As can be seen from Table 5.4, in 1980-81, capital disbursement was 6.09 times higher than the capital receipts (excluding borrowing) of Kerala, 3.3 times higher in Maharashtra, 2.1 times higher in Tamil Nadu and for West Bengal, it was 4.5 times higher. By 1992-93, capital disbursement became 10.96 times higher than the capital receipts of Kerala. In other three states, the ratio between capital disbursement and capital receipts declined but still capital expenditure continues to exceed the capital receipts of the state (excluding borrowing). Thus capital account gap persisted in all four states. The deficit in the capital account and the growing revenue deficit resulted in the persistent fiscal deficit of the states which in turn, drove them to resort to higher levels of borrowing.

Table 5.4: The Ratio Between Capital Disbursement and Capital Receipts

Year	KE	MAH	TN	WB
1980-81	6.09	3.28	2.11	4.52
1981-82	6.09	3.19	1.56	11.25
1982-83	24.47	3.56	2.20	8.13
1983-84	5.66	3.03	1.90	4.42
1984-85	8.44	2.25	1.88	0.88
1985-86	2.96	1.87	2.45	13.62
1986-87	11.55	2.81	3.31	3.02
1987-88	2.17	2.81	0.82	2.18
1988-89	-8.01	1.68	1.82	2.87
1989-90	23.16	1.46	1.52	3.98
1990-91	6.40	2.69	2.64	2.42
1991-92	10.99	1.21	0.45	2.27
1992-93	10.96	1.58	1.41	1.51

Note: The abbreviations of the states are same as in Table 3.2 . Capital Disbursement excludes loan repayment and Capital Receipts excludes receipts excluding borrowing.

Source: Same as in Table 3.7.

From the preceding discussion on budgetary trend it is clear that the revenue account gap widened over the years, which is due to the faster growth of revenue expenditure than receipts. The factors that led to the faster growth of expenditure in the revenue account is analysed in Chapter IV. In this chapter we will analyse the trends and structure of revenue receipts and the factors affecting them.

Revenue Receipts

A state's total revenue account earnings comprise of tax and non-tax revenues. So far as the tax revenue is concerned a distinction has to be made between a state's own tax revenue and its share in central taxes. Non-tax revenue comprises of state's own non-tax revenue and grants from the centre. When we are analysing the receipts side of the revenue account we must keep in mind the fundamental imbalance in the federal financial relation in India

where states have inadequate taxation power compared to their expenditure responsibilities.

Table 5.5: Composition of Revenue Receipts (percent)

	Shared Taxes	Grants	State's Own Non-Tax Revenue	State's own Tax Revenue	Total Revenue Receipts
Kerala					
1980-81	15141 (23.6)	5238 (8.2)	10005 (15.6)	33654 (52.6)	64038(100)
1991-92	57643 (20.2)	36704 (12.9)	23472 (8.2)	167393 (58.7)	285212(100)
1992-93	66849 (19.9)	52269 (15.5)	25811 (7.7)	191687 (56.9)	336616(100)
Maharashtra					
1980-81	33640 (16.5)	13398 (6.6)	43734 (21.5)	113034 (55.5)	203806(100)
1991-92	121966 (12.5)	81094 (8.3)	178769 (18.3)	595430 (60.9)	977259(100)
1992-93	139663 (12.8)	101420 (9.3)	199219 (18.3)	650957 (59.7)	1091259(100)
Tamil Nadu					
1980-81	29176 (22.8)	11652 (9.1)	23257 (18.2)	63911 (49.9)	127996(100)
1991-92	118947 (17.6)	73359 (10.8)	111849 (16.5)	373411 (55.1)	677566(100)
1992-93	141969 (21.3)	69624 (10.5)	52023 (7.8)	402505 (60.4)	666121(100)
West Bengal					
1980-81	30989 (28.4)	11236 (10.3)	15537 (14.2)	51408 (47.1)	109170(100)
1991-92	123541 (26.4)	81507 (17.4)	24241 (5.2)	238468 (51.0)	467757(100)
1992-93	147376 (27.0)	101938 (18.7)	29205 (5.3)	268020 (49.0)	546539(100)

Note: Figures within brackets are percentage share of each component.

Source: Same as in Table 3.7.

The composition of revenue receipts (Table 5.5) shows that apart from the state's own tax and non-tax revenue, other major component of state revenue is shared taxes. Shared taxes and grants from the centre together constitutes more than one third of the total revenue receipts of the state. Table 5.5 reveals that in Kerala and Maharashtra, the share of central taxes in total revenue receipts declined. In Tamil Nadu and West Bengal, the ratio fluctuated within a narrow range. Another component whose share in total revenue receipts declined in all four states is the share of own non-tax revenue. Between 1980-81 to 1992-93, the share of own non-tax revenue in total revenue earning declined from 15.6 percent

to 7.7 percent in Kerala, 18.2 percent to 7.8 percent in Tamil Nadu and 14.2 percent to 5.3 percent in West Bengal. During the same period, in Maharashtra, though the share of own non-tax revenue in total revenue receipts declined from 21.5 percent to 18.3 percent, the share of it in total revenue earning was much higher than that of other three states. In Maharashtra, the share of own non-tax revenue is even higher than the share of central taxes in total revenue receipts.

The composition of states total revenue earning brings out two other important points. First, though the share of own non-tax revenue in total revenue receipts declined in all four states, the share of states own tax revenue increased. Secondly, the share of grants from the centre also increased in all four states. During 1980-81 to 1992-93, the share of own tax revenue in total revenue receipts increased from 52.6 to 56.9 percent in Kerala, 55.5 to 59.7 percent in Maharashtra, 49.9 to 60.4 percent in Tamil Nadu and 47.1 to 49 percent in West Bengal. The share of grants in total revenue receipts increased sharply from 8.2 percent to 15.5 percent in Kerala. In West Bengal, it increased from 14.2 to 18.7 percent. In Maharashtra, the share of grants in total revenue receipts is comparatively lower than other states and it shows an increase from 6.6 percent to 9.3 percent. In Tamil Nadu, the share of grants increased from 9.1 percent to 10.5 percent barring few years of 1980s when the share of grants in total revenue receipts increased and hovered around 12 percent.

The composition of revenue receipts as discussed above gives an understanding of the relative importance of different components of

revenue receipts and an idea about their weightage in the total revenue earnings of the states. Table 5.6 gives a comparative picture of the growth of different components of the revenue of the four states. Among the four states, total revenue growth is highest in Tamil Nadu (16.21 percent). The other three states also show a respectable rate of growth of total revenue which hovered around 15 percent. Among the different components of revenue receipts, own tax revenue of Tamil Nadu grew even faster rate at 17.65 percent. In Kerala, own tax revenue grew at 15.61 percent annually which is higher than its total revenue growth. In Maharashtra and West Bengal, own tax revenue grew at the rate of 15.34 percent and 14.57 percent respectively. In Maharashtra and West Bengal also, rate of growth of own tax revenue was higher than the rate of growth of total revenue of the states.

On the other hand, the growth in the state's receipts on account of their share of the central taxes was considerably lower than the growth of the state's own tax as well as total revenue receipts. Inadequate growth of central transfer through taxes reduced the total revenue growth of all four states. The growth in central transfer by way of grants was considerably higher than growth registered in the other components of revenue receipts in states other than West Bengal. However, one has to remember in this context that compared to other components of revenue receipts grants from the centre is relatively small component.

Own non-tax revenue earnings of all four states also pulled down the total revenue earnings of the states. Among the four states the performance of West Bengal in own non-tax revenue earning is

Table 5.6: Annual Compound Growth Rate of Revenue Receipts during 1980-81 to 1992-93 (percent)

	Total Rev.	State's Own Rev.	Own Tax Rev.	Own-Non Tax Rev.	Share in Central Taxes	Grants
Kerala	14.31	13.64	15.61	5.93	12.99	21.37
Maharashtra	14.90	14.73	15.34	13.01	12.51	17.93
Tamil Nadu	16.21	16.73	17.65	11.82	13.85	18.85
West Bengal	14.29	11.60	14.57	0.90	13.70	10.06

Source: Same as in Table 3.7.

very poor. During 1980-81 to 1992-93, own non-tax revenue grew at a rate of only 0.90 percent per annum. Kerala's performance was the second lowest being 5.93 percent only. For the other two states of Tamil Nadu and Maharashtra, rate of growth of own non-tax revenue earning was much higher, at 11.82 percent and 13.01 percent respectively. Even in the case of Maharashtra and Tamil Nadu, the growth of own non-tax revenue was distinctly below the growth of own tax revenue and total revenue receipts.

Analysis of the rate of growth of different components of state revenue do not reveal much about the revenue raising capacity of the state. To evaluate the revenue raising capacity of the state an analysis of tax effort of individual state is necessary. The indices of tax effort presented in Table 5.7 clearly shows remarkable performance of Kerala and Tamil Nadu in exploiting the tax base of the state. These two states have made total tax-revenue effort in the order of 135 and with respect to own tax revenue, effort is much higher and in the order of 145. However, tax effort of Maharashtra is much lower than Kerala and Tamil Nadu. In respect of total tax revenue Maharashtra shows below the average

Table 5.7: Indices of Tax Effort of Individual States

(percent)

States	Total Tax Revenue			Own Tax Revenue		
	1981-82	1991-92	1992-93	1981-82	1991-92	1992-93
ANDHRA	104.77	104.22	97.57	106.97	104.40	99.32
BIHAR	106.10	102.52	107.62	65.95	59.38	63.90
GUJARAT	95.57	97.14	110.91	109.40	125.28	129.86
HARYANA	93.04	89.55	87.06	113.49	109.30	108.99
KARNATAKA	111.75	127.63	122.75	123.10	143.42	142.44
KERALA	125.83	134.81	135.77	130.05	143.07	147.21
MADHYA	109.29	93.47	100.15	95.80	82.84	87.92
MAHARASTR	93.70	91.18	90.55	111.39	107.96	109.03
ORISSA	84.01	96.80	98.91	59.33	61.85	63.39
PUNJAB	90.81	78.84	73.99	112.66	94.51	89.71
RAJASTHAN	95.09	99.23	102.07	87.86	89.68	92.02
TAMILNADU	122.54	137.28	134.14	132.60	148.54	145.02
UP	91.87	91.93	89.27	74.15	73.64	70.48
WB	89.47	84.84	83.66	86.06	80.47	79.56
ALL INDIA	100.00	100.00	100.00	100.00	100.00	100.00

Note: Index of Tax Effort = [(Tax Revenue of State as a percent of GDP)/(Aggregate Tax Revenue as per cent of GDPs for all States)]x100

Source: Same as in Table 3.7.

tax effort. Among the fourteen major states in India tax-effort of West Bengal with respect to total tax revenue and own tax revenue is the lowest. Below the average tax effort have severely affected the internal resource position of the West Bengal.

As regards the non-tax revenue, comprising of states' own non-tax revenue and grants from the central government, Table 5.8 shows that contribution of own non-tax revenue has been declining for all the four states. The decline has been quite sharp for West Bengal and Kerala. In Tamil Nadu and Maharashtra the decline was relatively moderate during the 1980s. However, Tamil Nadu's own non-tax revenues show a sharp decline between 1991-92 and 1992-93. Table 5.8 shows that between 1980-81 to 1992-93, cost recovery ratio under 'Social Services' declined from 10.8 to 4.2 percent in Kerala, 7.2 to 3.9 percent in Maharashtra, 7.7 to 5.2 percent in

Tamil Nadu and 9.4 to 4.9 percent in West Bengal. Decline in cost recovery ratio in respect to 'Economic Services' is even more drastic. During the same period, cost recovery ratio for 'Economic Services' declined from 39.8 to 13.5 percent in Kerala, 43.4 to 24.8 percent in Maharashtra. In Tamil Nadu it declined to 9.4 percent in 1991-92 from a level of 14.2 percent in 1980-81. In West Bengal, the same ratio declined from 19.1 to 10 percent. Among the four states, West Bengal's condition is worst.

Between 1980-81 to 1991-92, the share of state's own non-tax revenue earning to total non-tax revenue declined from 58.03 percent to 24.43 percent, followed by Kerala (from 65.64 percent to 39.01 percent), Tamil Nadu (from 66.62 to 60.39 percent) and Maharashtra (from 76.55 to 68.79 percent). As can also be seen from the same Table, though there is a fall in the share of states own non-tax revenue, Maharashtra and Tamil Nadu has been successful in improving recoveries through interest receipts, dividends and profits. Between 1980-81 to 1991-92, interest receipts and dividends and profit as a proportion of non-tax revenue increased from 38.78 percent to 42.32 percent in Tamil Nadu and from 17.61 percent to 30.48 percent in Maharashtra. Tamil Nadu's position in this respect appears to have suffered a severe set back between 1991-92 and 1992-93. The better non-tax revenue earning by the states through better interest receipts, dividends and profits has direct positive effect in reducing the debt burden of the states.

Table 5.8: Composition of Non-Tax Revenue of States

KERALA	1980-81	1991-92	1992-93
A.ONTR(a+b+c+d)	10005 (65.6)	23472 (39.0)	25811 (33.1)
a.IR,DIV & PFT	958 (6.3)	2307 (3.8)	3106 (4.0)
b.Gen.Services	1341 (9.0)	8260 (13.7)	8859 (11.4)
c.So.Services	1646 (10.8)	3056 (5.1)	3281 (4.2)
d.Eco.Services	6060 (39.8)	9849 (16.4)	10565 (13.5)
B.Grants	5238 (35.0)	36704 (61.0)	52269 (67.0)
Total(A+B)	15243 (100)	60176 (100)	78080 (100)
MAHARASTRA	1980-81	1991-92	1992-93
A.ONTR(a+b+c+d)	43734 (76.6)	178769 (68.8)	199219 (66.3)
a.IR,DIV & PFT	10062 (17.6)	79210 (30.5)	91314 (30.4)
b.Gen.Services	4735 (8.8)	21770 (8.4)	21919 (7.3)
c.So.Services	4136 (7.2)	12577 (4.8)	11583 (3.9)
d.Eco.Services	24801 (43.4)	65210 (25.1)	74403 (24.8)
B.Grants	13398 (23.5)	81094 (31.2)	101420 (33.7)
Total(A+B)	57132 (100)	259863 (100)	300639 (100)
TAMIL NADU	1980-81	1991-92	1992-93
A.ONTR(a+b+c+d)	23257 (66.6)	111849 (60.4)	52023 (42.8)
a.IR,DIV & PFT	13537 (38.8)	78383 (42.3)	91314 (17.4)
b.Gen.Services	2080 (6.0)	7625 (4.1)	21200 (5.3)
c.So.Services	2682 (7.7)	8460 (4.6)	6418 (5.2)
d.Eco.Services	4958 (14.2)	17378 (9.4)	6344 (14.9)
B.Grants	11652 (33.4)	73359 (39.6)	18061 (57.2)
Total(A+B)	34909 (100)	185208 (100)	121647 (100)
WEST BENGAL	1980-81	1991-92	1992-93
A.ONTR(a+b+c+d)	15537 (58.0)	24241 (24.4)	29205 (23.3)
a.IR,DIV & PFT	1664 (6.2)	3822 (3.9)	4668 (3.7)
b.Gen.Services	6243 (23.3)	6804 (6.9)	5749 (4.6)
c.So.Services	2509 (9.4)	4479 (4.5)	6169 (4.9)
d.Eco.Services	5121 (19.1)	9135 (9.2)	12519 (10.0)
B.Grants	11236 (42.0)	75000 (75.6)	95912 (76.7)
Total(A+B)	26773 (100)	94241 (100)	125177 (100)

Note:ONTR = State's Own Non-Tax Revenue, IR = Interest Receipts,
 DIV = Dividends, PFT = Profit, Gen = General, So = Social,
 Eco = Economic.

Source: Same as in Table 3.7.

Table 5.9: Gross and Net Effective Interest Rate (percent)

Gross Effective Interest Rate					Net Effective Interest Rate			
Year	KE	MH	TN	WB	KE	MH	TN	WB
1981	4.99	5.80	7.06	5.77	3.94	0.51	-3.43	4.89
1982	5.66	6.71	6.50	5.54	5.20	1.10	3.03	4.69
1983	5.64	6.51	6.50	6.59	4.62	0.75	3.32	5.62
1984	7.27	6.49	7.20	5.95	6.48	0.57	4.17	4.89
1985	7.66	7.13	7.13	6.84	5.68	0.68	4.16	5.96
1986	6.84	7.36	7.03	7.01	5.51	0.73	4.06	6.24
1987	7.93	8.76	7.83	7.64	6.30	1.98	4.84	6.53
1988	8.57	9.01	8.26	8.24	6.99	2.26	5.33	7.55
1989	8.64	9.58	8.85	8.72	7.69	2.45	6.49	7.87
1990	10.04	10.15	9.41	9.63	9.37	2.62	7.12	8.65
1991	9.73	10.25	10.82	9.84	8.92	2.48	8.71	9.14
1992	10.88	11.77	10.13	10.51	10.36	3.73	-4.12	10.02
1993	10.27	11.94	11.48	11.44	9.93	4.42	7.04	10.28

Note: The abbreviations for the states are same as in Table 3.2.
Source: Same as in Table 3.7.

The positive effect of recoveries through interest receipts dividends and profit will be clearer if we see the gross and net effective interest rate structure of the four states. As can be seen from Table 5.9, though there is not much of differences in the gross interest rate among four states, net interest rate structure differs significantly. As in 1993, the gross interest rate of all four states were around 10 to 11.5 percent. However, net effective interest rate structure shows that in the same year net effective interest rate of Maharashtra was only 4.42 percent, followed by Tamil Nadu (7.04 percent), Kerala (9.93 percent) and West Bengal (10.28 percent). The difference between Gross Effective Interest Rate (hereafter GEIR) and Net Effective Interest Rate (hereafter NEIR) of Kerala and West Bengal is very low because of the poor performance of states in non-tax revenue earning in general and recoveries through interest receipts dividends and profit in particular. GEIR is derived as a percentage of the gross interest payment paid on the outstanding debt of the previous year.

Similarly, NEIR is derived as a percentage of the difference between gross interest payment minus interest receipts, dividends and profits by the state divided by the previous years outstanding debt. Variation in the GEIR and NEIR structure across the states due to the differences in recoveries through interest receipts, dividends and profit resulted in wide variation in the debt burden across the states.

Table 5.10 shows that how better recoveries in Maharashtra helped in reducing the gross interest burden during 1980-81 to 1992-93. During this whole span of 13 years, in Maharashtra, gross outgo on account of interest payment as a percentage of total revenue

Table 5.10: Gross and Net Interest out go during 1980-81 to 1992-93

Gross Interest Payment as a Percentage of	KE	MAH	TN	WB
1.SDP	2.45	1.34	1.39	1.77
2.Total Expenditure	9.42	7.55	6.58	10.53
3.Revenue Expenditure	11.88	9.44	7.69	13.23
4.Total Revenue Receipts	13.04	9.63	8.37	14.74
Net Interest Payment as a Percentage of	KE	MAH	TN	WB
1 SDP	2.19	0.34	0.95	1.62
2 Total Expenditure	8.42	1.89	4.51	9.60
3 Revenue Expenditure	10.62	2.37	5.27	12.07
4 Total Revenue Receipts	11.66	2.41	5.74	13.45

Source: Same as in Table 3.7.

receipts was 9.63 percent. However, net outgo as a percentage of Maharashtra's current receipts is only 2.37 percent during the same period. Differences in gross and net outgo as a percentage of

different indicators of debt burden show that Maharashtra has been the most successful state in keeping the interest burden low through better recoveries, followed by Tamil Nadu. But due to the poor recovery performance of Kerala and West Bengal, net outgo as a percentage of current receipts of the government is substantially higher in these two states. During this period net outgo as percentage of current receipts reached a level of 11.66 percent in Kerala and 13.45 percent in West Bengal.

Summary

The above analysis showed that despite the average revenue receipts growth of 15 percent per annum, revenue account of all the states plunged into deficit because of the faster growth expenditure than receipts in the revenue account. Of course, a further growth of revenue could have been achieved if states performance in non-tax revenue earning was better. Secondly, in all the states rate of growth of shared taxes was lower than states own tax revenue growth. Thus despite a higher growth of states own tax revenue, slower growth of central transfer through taxes and tardy growth of own non-tax revenue brought down the total revenue growth of the state. If there had been a better growth of central transfer through shared taxes and state's own non-tax revenue, then balance in the revenue account could have been maintained, if not, the deficit could have been reduced and consequently the volume of debt.

CHAPTER VI

SUSTAINABILITY OF STATES' PUBLIC DEBT

Introduction

In recent years, discussion on the issue of increasing public debt in India and its effect on government finance has been focused on the medium and long term sustainability of public debt. Through projection of key macro variables some studies tried to show an explosive rise in the debt-GDP ratio and corresponding interest outgo to government receipts. These studies concluded that, if present fiscal stance persists, debt will be unsustainable by the end of the century. Here, it should be made clear that the questions and concerns regarding the sustainability of debt basically dealt with the internal debt, including other internal liabilities, of the central government.

During the 1980s, internal debt of India has grown very fast in absolute term as well as in relation to GDP. As can be seen from Table 6.1, between March-end, 1981 and March-end, 1992, the combined debt of the central and state governments increased 6.44 fold in absolute term from Rs. 55,725 crores to Rs. 358,726 crores¹. As a proportion of GDP, it registered an increase from 45.52 percent to 64.99 percent during this period. But taken separately, outstanding debt of all states together did not show much of an increase in relation to GDP during this period. Outstanding debt of the states as a proportion of GDP increased from 19.81 to 22.51 percent. During this period, the share of

¹ The combined debt calculation eliminates double counting.

Table 6.1: Total debt of the State Government as a percentage of the Combined Debt of the Centre and States and States' debt-GDP ratio

	CDSC	OSD/CDSC	CDSC/GDP	OSD/GDP
1981	55725	43.52	45.52	19.81
1982	64723	43.19	45.19	19.52
1983	80018	40.51	50.37	20.40
1984	90890	41.54	48.87	20.30
1985	110144	39.90	52.99	21.14
1986	133801	39.07	57.23	22.36
1987	164251	36.92	63.17	23.32
1988	192014	35.98	65.12	23.43
1989	226105	34.58	63.96	22.12
1990	267190	34.20	65.84	22.52
1991	317347	34.10	67.14	22.89
1992	358726	34.64	64.99	22.51

Note: CDSC = Combined Debt of the State and Central Government
OSD = Outstanding State Debt

Source: RBI Report on Currency and Finance; Finance Account of Union Governments; Economic Survey

outstanding debt of the state governments in the combined debt of the central and state governments declined from 43.52 percent to 34.64 percent. Still, more than one third of the combined debt of the centre and states is accounted for by the states. So the question of the burden of state level indebtedness is not unimportant.

While discussing the question of the states' debt, it is important to bear in mind also that the major part of the states' debt is owed to the centre. Even when one looks at the centre's debt, a noteworthy aspect of that is that a good portion thereof is represented, on the asset side, by the outstanding loans to the states. As can be seen from the Table 6.2, between March-end, 1981 and March-end, 1992, while internal debt of the central government increased from Rs. 48,451 crores to Rs. 317,714 crores, the loans outstanding against the states represented between 26 percent and 35 percent of the centre's outstanding internal debt.

Table 6.2: Internal Debt of the Central Government and Outstanding 'Loans and Advances from the Central Government' to the States during March-end, 1981 to March-end, 1992

At the End of March	TIDEBT of the Centre	LACG to States	LACG/TIDEBT (Percentage)
1981	48451	16980	35.05
1982	55858	19088	34.17
1983	71190	23585	33.13
1984	80141	27003	33.69
1985	96804	30606	31.62
1986	119331	37812	31.69
1987	146247	42634	29.15
1988	172338	49407	28.67
1989	204035	56114	27.50
1990	239849	64049	26.70
1991	283033	73889	26.11
1992	317714	83265	26.21

Note: TIDEBT = Total Internal Debt of the Central Government,
LACG = Loans and Advances from Central Government to the states

Source: RBI Report on Currency and Finance; Finances Account (Union Government)

Significantly, however, this proportion declined from 35 percent in 1981 to 26.21 percent in 1992. In absolute terms, the outstanding debt owed by the states to the centre increased from Rs. 16,980 crores to Rs.83,265 crores. Since even in 1991-92, as much as 26 percent of the centre's outstanding internal debt was on account of the loans states owe to the centre, the questions and concerns with respect to centre's public debt can be said to apply to the state governments as well.

Of course a word of caution is necessary to put in here. A view could be taken that the mere fact that the states owe an amount to the centre does not mean that the choice was of the state governments to borrow from the centre. The choice was most likely of the centre to transfer resources to the states in the form of

loans and advances rather than outright grants or other non-debt creating mechanisms. At the same time, the fact remains that the states do borrow from the centre rather than go without such amounts as the centre was willing to lend them and having borrowed the states have to service the debt they have thus incurred. So the question of sustainability of state's debt does still arise. Along with this, states also undertake the servicing obligations of that part of their debt which they raise from other sources, under heads like 'Internal debt' and 'Provident Funds (etc.)'. To that extent, problem of debt management magnifies further and the issue of sustainability of states' debt becomes more urgent.

Success of debt management of any government lies in keeping the interest burden low. At the state level, though the ratio of outstanding state debt to GDP did not show much of an increase during March-end, 1981 to March-end, 1992, the ratio of outgo on account of interest payment to current receipts of the state governments increased substantially during this period. Gross interest payments as a percentage of revenue receipts of all states increased from 7.5 to 14.7 percent. This means that almost twice the earlier proportion of the state's revenue receipts have to be set aside for meeting their interest obligations. This ratio varies considerably across the states. There are states where the proportion of revenue receipts to be set aside is considerably higher than the all-state average; as a result they face difficulties in meeting their other obligations, obligations state governments should meet in order to fulfil the responsibilities and functions assigned to them under the Constitution. It is precisely this sort of problem that leads one to raise the question of

sustainability of public debt be it the government at the centre or in the states.

Theoretical literature and empirical exercises on sustainability of public debt for various countries have dealt with the issue of sustainability of debt in the national context. Our interest on the other hand is to look into the issue of sustainability of public debt in the sub-national context. The question of sustainability of public debt should have relevance even at the sub-national level so long as the responsibility of debt servicing falls at the sub-national government. After all, as we shall note from the review of literature on the subject of sustainability of public debt that follows, basically the question when public debt become unsustainable and what level is closely labelled as the unsustainable.

Review of Literature on Sustainability

Way back in 1940, Wright argued that even though debt servicing obligations can impose a real burden on the society, to a large extent this burden can be reduced if a proper tax policy is pursued. But for the taxable capacity to grow national income must grow. While commenting on the rising debt and interest payment, he took this view:

'even though interest charges and consequent tax friction are rising absolutely, the relative tax friction may be decreasing, if the national money and real income is increasing at a faster rate. Thus if we have a genuine growth in the taxable capacity of the country, a rising interest bill is not a matter of immediate concern. Nor it will be matter of concern as long as the taxable capacity of the country continues to grow, as fast, or faster than the taxes'.

Domar (1944), taking a similar line of argument, argued that the burden of debt should not be judged by looking at the growing volume of debt. Rather, the focus of attention should be on the growth of public debt relative to national income. If national income is growing at a rate faster than public debt, then debt servicing should pose little problem because the additional tax burden required to be imposed to meet debt servicing need not be high. Domar also argued that the 'burden of debt', if it has any meaning, refers to the tax burden which must be imposed to finance the service charges and if only the required tax to meet interest charges is high, the question of sustainability of debt arises.

The proportion of national income required to be raised in taxation to service interest payment, according to Domar, can be worked out with the help of the following equation:

$$t = (\alpha/r)*i$$

where 't' is the fraction of national income necessary to raise in taxation to service public debt, 'α' is the fraction of national income borrowed by the government, 'r' is the rate of growth of national income and 'i' is the real rate of interest. The above equation "shows that the burden of debt is directly proportional to 'α' and 'i' and inversely to 'r'. If the burden is to be light (with given 'α' and 'i') there must be a rapidly rising income. The problem of debt burden is a problem of an expanding national income".

Domar's emphasis was clearly on the relationship of current public borrowing or fiscal deficit, with the growth of income. Domar discusses a number of possible scenarios and demonstrates how

important it is for the burden of servicing public debt to remain within a reasonable limit that the economy grows fast. He shows that if the rate of borrowing ' α ' increases without a proportional increase in the rate of economic growth ' r ', the ratio $(\alpha/r)*i$, and hence the burden of debt, ' t ' will increase. From Domar's equation, it can also be seen that if borrowing rate ' α ' is lower than income growth ' r ', then the required ' t ' will be lower than interest rate ' i '. If borrowing is higher than income growth, the opposite will be the case. Domar does not dilate much on the level of, or change in interest rate ' i ', except when discusses the case when ' r ' is declining but ' α ' remains constant; in this case, for the burden of debt servicing ' t ', not to increase "the interest rate on bonds must be continuously reduced".

Masson (1985) has put more emphasis on the rate of interest and argued that for the sustainability of fiscal deficit, which is other name of government borrowing the real rate of growth of the economy must be higher than the real rate of interest. He observed:

'If the real rate of interest is above the real growth rate of the economy, then an expansionary fiscal policy at present, whether in the form of expenditure increases or tax reductions, must involve either contractionary fiscal policy at some time in the future or an increase in the seigniorage from money creation. Otherwise the increase in government debt will feed upon itself as the government borrows to finance the interest payments on debt it previously incurred, and debt eventually becomes excessively large relative to other macroeconomic variables'.

In fact, Domar's equation itself shows that given the rate of borrowing, the rate at which taxation has to be mobilised will be higher or lower depending on how much lower or higher the rate of interest is compared to the rate of income growth. The important

point of agreement between Domar and Masson is that public borrowing is sustainable so long as the economy is growing robustly. Then, meeting interest obligations of the government should not impose excessive burden on the community, whatever the form in which the government chooses to mobilise revenues for the purpose.

In the Indian context, discussion on the issue of sustainability of public debt was first taken up by Seshan (1987). He concluded that 'given the current trend it appears that by 1992-93, a point may be reached when market borrowing may not be adequate to meet even interest payments'. Seshan's study has been criticised on methodological ground since it was based on simple trend analysis. Second major exercise was attempted by Rangarajan et al. (1989). It came to the conclusion that by the end of the century, debt of the central government will become unsustainable. Projection of public debt and interest burden is made by deriving net primary deficits through intertemporal budget constraint. Assigning values to the key parameters like real GDP growth, inflation rate, nominal rate of interest, they arrive at the estimate of debt-GDP ratio of 149.65 by 1999-2000 (see Appendix 6A). Along with that, the ratio of gross and net out go on account of interest payment to government's current receipts reaches the level of 68.90 and 30.10 percent respectively by the end of the century. Chelliah (1991) found that present fiscal stance is not sustainable. He projects the growth of internal debt on the assumption that net borrowing from domestic sources, would grow at the same rate as in the last five years starting with 1989-90 and GDP is assumed to grow at the rate which prevailed during the seventh plan period. Inflation

rate is taken as close as to the rate of increase in the GDP deflator in 1980s and interest rate is assumed to be same as in the base year 1989-90. On the basis of these assumptions, debt-GDP ratio projected by Chelliah increases to 102.1 percent by 2010-2011. Chelliah concludes this level of debt is unsustainable.

Projection of debt-GDP ratio and the ratio of gross and net interest payment to current revenue receipts projected by Rangarajan et al. (1989) and Chelliah (1991) are worth comparing with the actual figures till 1992-93.

Table 6.3: Comparison of Different Estimates of Debt-GDP ratio with the Actual (percent)

	Projection (Rangarajan's)	Projection (Chelliah's)	Actual
1987-88	44.60	----	44.60
1988-89	49.24	----	50.26
1989-90	54.53	47.9	52.73
1990-91	60.50	50.2	53.84
1991-92	67.18	52.7	46.54
1992-93	74.59	55.6	45.43

As can be seen from the Table 6.3, both Rangarajan et al.'s and Chelliah's projections of debt-GDP ratio were over estimated. As per Rangarajan et al.'s projection of debt-GDP ratio, by 1992-93, projected figure of debt-GDP ratio is more than 30 percentage points higher than the actual. Chelliah's projection of the same is also more than 10 percent higher than the actual by the end of 1992-93.

As regards, the ratio of gross and net interest payment to government's current receipts both Rangarajan et al. (1989) and Chelliah (1991) make projections which too are over estimates. As

can be seen from the Table 6.4, between 1987-88 and 1992-93, the actual gross outgo on account of interest payment as a percentage of revenue receipts declined from 27.50 to 23.62 percent whereas the same ratio increases from 26.16 to 39.54 percent in Rangarajan et al. and from 33.6 percent in 1989-90 to 37.7 percent in 1992-93 in Chelliah. During the same period of time, the ratio of the actual net outgo on account of interest payment to government's current receipts remains around 12 percent, whereas by Rangarajan et al.'s estimate it should have gone up from 11.43 to 17.28 percent. According to Chelliah, the ratio of net interest outgo to government's current receipts should have reached 23.2 percent by the end of 1992-93.

Table 6.4: Comparison of Different Estimates of Interest Burden with the Actual (percent)

	Rangrajan's Estimates		Chelliah's Estimates		Actual	
	GIP/RRC	NIP/RRC	GIP/RRC	NIP/RRC	GIP/RRC	NIP/RRC
1987-1988	26.16	11.43	---	---	27.50	12.64
1988-1989	28.30	12.36	---	---	22.40	10.10
1989-1990	30.71	13.42	33.6	20.7	24.05	12.37
1990-1991	33.39	14.59	35.0	21.2	24.58	14.89
1991-1992	36.34	15.88	36.3	22.2	27.72	14.77
1992-1993	39.54	17.28	37.7	23.2	23.62	12.66

Note: GIP = Gross Interest Payment, RRC = Revenue Receipts and NIP = Net Interest Payment.

Source: Actual figures are drawn from Finance Accounts (Union Government).

What could be the reason behind the over-estimation of debt-GDP ratio and interest burden by Rangarajan et al. (1989) and Chelliah (1991)? We shall examine this question in the light of the theoretical frame work developed by Domar. The whole question of sustainability rests certainly on the values assigned to 'α', 'r'

and 'i' in Domar's equation. If the rate of borrowing ' α ' is constant, debt burden will stabilise if the real rate of growth of the economy is higher than the real rate of interest. When one looks at the values assigned to 'r' and 'i' for purposes of projection by Rangarajan et al. and Chelliah, one notes that (Table 6.5) the real rate of growth of the economy is assumed to be higher than the real rate of interest, other condition for sustainability arrived from Domar's equation, the borrowing-GDP ratio, ' α ' in both the studies is exponential. The time path of ' α ' in both the exercises goes up to an exceptionally high level by the end of the century. In Rangarajan et al., ' α ' reaches at 28.03 percent in 1999-2000 from the base year (1987-88) level of 7 percent. Chelliah projects that ' α ' will reach 19.33 percent by the end of 2000-2001. Increase in ' α ', the borrowing-GDP ratio or the fiscal deficit-GDP ratio, by more than 21 percent in a span of 12 years in Rangarajan et al.'s estimate and by more than 10 percent in Chelliah's estimate (in a span of 11 years) is not in conformity with the past trend. Between 1970-71 to 1988-89, i.e., in a span of 19 years, fiscal deficit as a percentage of GDP increased from 2 percent to 6 percent, i.e., 4 percent increase in a span of 19 years. More than 20 percent increase in the borrowing-GDP ratio in a very short period of time in Rangarajan et al. is because of the assumptions of the model regarding future borrowing. Taking the base year (1987-88) of Rangarajan et al. and values assigned to different parameters (GDP growth, interest rate and rate of inflation) by them we have attempted an alternative assessment of the sustainability of the domestic debt of the central government and presented them in the appendix to this chapter.

The critical departure in the assumption we have made compared to Rangarajan et al, is with regard to the rate of government borrowing or fiscal deficit ' α '. The fraction of GDP borrowed annually by government is assumed to be 7 percent. According to our exercise, the burden of gross interest outgo should increase, but very moderately from 3.24 percent of GDP in 1987-88 to 4.1 percent in 1999-2000 and of net interest outgo from 1.32 percent to 1.67 percent.

Table 6.5: Assigned Values to the GDP, Interest Rate and Inflation Rate

Values assigned by Rangarajan et al. (1989)
Rate of growth of GDP (r)= 12 percent (nominal)
Rate of interest (i) = 8.45 percent (Weighted average of the rate of interest)
Rate of inflation is 7 percent.
Real Rate of Growth of GDP= 5 percent.
Real Rate of Interest Rate= 1.45 percent.
Values assigned by Chelliah (1991)
Rate of growth of GDP (r)= 12 percent (nominal)
Rate of interest (i) = 8.85 percent (Weighted average of the rate of interest)
Rate of inflation is 6.5 percent.
Real Rate of growth of GDP=5.5 percent.
Real Rate of Interest= 2.35 percent.

Our foregoing review of literature on sustainability of public debt brings out that in order to keep the debt burden within limits what is required is to ensure that the government expenditure is increased in a manner that promotes growth of national income. With national income growing well, the economy should be able to absorb the burden of growing public debt, provided the growth of public debt is not out of line with the growth in national income. But 'absorbing the debt burden' does not imply no increase in the need to mobilise additional resources. What it implies is that the

additional resources required to be mobilised for meeting debt servicing would not have to reach proportions that should raise doubts about the sustainability of public debt. In our following discussion of the question of sustainability of state level public debt, we follow this approach.

Sustainability of States Public Debt

Sustainability of a states' public debt depends upon the capacity of the state to bear the burden of debt servicing. Debt servicing capacity of a state should grow if the states' income grows because along with income taxable capacity of the state also can be taken to increase. Thus in order to judge future sustainability of debt we have to make an assumption about the future rate of growth of SDP and its revenue earning. For the purpose of our exercise regarding the sustainability of state debt we will proceed on the basis of the following assumptions:

- i) The ratio of current borrowing to SDP will remain constant at the level reached in 1991-92.
- ii) SDP will grow at the same rate as in the last 12 years, from 1980-81 to 1991-92.
- iii) Base year as well as current effective rate of interest will be used to trace the path of interest payment during the projection period.
- iv) Rate of inflation will be 7 percent.

Our assumption of a constant fraction of SDP borrowed implies the acceptance of the continuance of the base year fiscal situation throughout the projection period. In other words whether debt is sustainable or not will be judged in respect to the base year

fiscal situation. There is no doubt that it is a restrictive assumption with respect to future fiscal balance; in reality it may turn out to be better or worse. Keeping this limitation in mind, the results we get will provide us with a tentative conclusion regarding the future scenario.

Values assigned to the key parameters on the basis of the assumptions mentioned above are shown in Table 6.6. Among the four states we are studying, fraction of SDP borrowed in 1991-92, was the highest in Kerala, followed by Tamil Nadu, West Bengal and Maharashtra. SDP in current prices grew at the highest rate (14.63 percent) in Tamil Nadu, followed by West Bengal (14.11 percent), Maharashtra (13.98 percent) and Kerala (12.26 percent).

Table 6.6: Values Assigned to the Key Parameters for Projection
(percent)

States	Fraction of GDP Borrowed	Rate of Growth of SDP
Kerala	7.28	12.26
Maharashtra	2.77	13.98
Tamil Nadu	3.56	14.63
West Bengal	3.33	14.11

The rate of interest, gross and net, used are calculated by working out the ratio of the interest obligation in the current year to the total outstanding public debt of the previous year. We refer to the rate thus worked out as effective rate of interest.

Thus,

$$GEIR (t) = \frac{GIP (t)}{OD (t - 1)} \times 100$$

and

$$NEIR (t) = \frac{GIP (t) - IR (t) + DV (t) + P (t)}{OD (t - 1)} \times 100$$

where

GEIR(t)= Gross Effective Rate of Interest in period (t)

NEIR(t)= Net Effective Rate of Interest in Period (t)

GIP(t)= Gross Interest Payment in Period (t)

OD(t-1)= Outstanding Debt in Period in (t-1)

IR(t)= interest receipts by the State government in Period (t)

Dv(t)= Dividends receipts in period (t)

P(t)= Profits earned by the State government in period (t)

Net interest payment in period (t) is calculated after netting out for interest receipts plus dividends and profits. Such netting is necessary because returns in the form of interest receipts plus dividends and profit are the results of the deployment of a portion of the borrowed funds by the state governments and the portion so deployed creates no liability for the state. Base year as well as current year, i.e, 1992-93, Gross and Net Effective Interest Rate structure is shown in Table 6.7. It is assumed that base year interest rate structure is going to persist during the projection period. Since net interest payment is taken as the difference between gross interest payment and interest receipts plus dividends and profits, the assumption regarding the constancy of gross and

net effective rate of interest also imply the constancy of present rate of recovery (interest receipts, dividends and profits) during the projection period. At this point, questions can be raised about the fixity of the rate of interest through out the projection period. In reality if $GEIR(t)$ and $NEIR(t)$ increase the ratio of the gross and net outgo on account of interest payment to revenue receipts will increase and the situation will turn worse than what we will project. But the point to be noted here is that we are making our assessment of the whole situation with respect to the base year (1991-92). Secondly, so far as the movement of interest rate is concerned what is important to us is the movement of $NEIR(t)$. Since $NEIR(t)$ is the difference between $GEIR(t)$ and recovery, improvement in recovery will always reduce the $NEIR(t)$ even when $GEIR(t)$ increases. Of course, one can argue that given our assumptions with regard to the constant interest rate and rate of government borrowing, the $GEIR(t)$ should not normally increase. With $GEIR(t)$ constant, improvement in recovery by the state government should reduce the $NEIR(t)$.

To make sure that we do not underestimate the interest liability we have also estimated the gross and net interest burden in respect to the current year, 1992-93. As can be seen from the Table 6.7, gross effective rate of interest in 1992-93 in Kerala and Maharashtra is marginally lower than that in 1991-92. But in Tamil Nadu and West Bengal, current year gross effective rate of interest is marginally higher than that of the base year. As for $NEIR(t)$, the figure in 1992-93 is lower than that in 1991-92 in Kerala and Tamil Nadu. In Maharashtra and West Bengal, $NEIR(t)$ in 1992-93 is higher than in 1991-92.

Table 6.7: Gross and Net Effective Interest Rate
at the Base year (1991-92) and 1992-93 (percent)

States	GEIR(t)		NEIR(t)	
	1991-92	1992-93	1991-92	1992-93
KERALA	10.88	10.45	10.36	9.93
MAHARASTRA	11.77	11.74	3.73	4.42
TAMIL NADU	10.13	10.55	8.47	7.04
WEST BENGAL	10.51	10.78	10.02	10.28

Note: Actual NEIR(t) of Tamil Nadu of the year 1991-92 is negative (-4.51 percent) because of the higher recovery through 'interest receipts' by the state than the state's gross interest payment obligation of that year. But during 1980-81 to 1992-93, general trend in NEIR(t) of the state is positive. To follow the general trend we have taken an average of the NEIR(t) of 1990-91 and 1992-93.

Projection of Debt-SDP Ratio (1991-92 TO 2010-2011)

Table 6.8 presents the projection of debt-SDP ratio during 1991-92 to 2010-2011. Projected figures of debt-SDP ratio show a rising trend in all four states. Kerala's debt-SDP ratio increases by more than 31 percentage point from 35.55 percent in 1991-92 to 67.14 percent in 2000-2011. During this period, debt-SDP ratio increases from 16.39 to 22.07 percent in Maharashtra, from 18.25 to 27.17 percent in Tamil Nadu and 22.16 to 26.32 percent in West Bengal. Though the debt-SDP ratio increases for all four states, Maharashtra's debt-SDP ratio is still the lowest among the four states during the projection period.

Table 6.8: Projection of Debt-SDP Ratio

	KE	MAH	TN	WB
1991-92	35.55	16.39	18.25	22.16
1992-93	39.47	17.15	19.48	22.72
1993-94	42.96	17.82	20.55	23.21
1994-95	46.07	18.40	21.49	23.64
1995-96	48.84	18.92	22.31	24.02
1996-97	51.30	19.37	23.02	24.35
1997-98	53.50	19.76	23.64	24.64
1998-99	55.46	20.11	24.18	24.89
1999-00	57.20	20.41	24.66	25.11
2000-01	58.75	20.68	25.07	25.31
2001-02	60.14	20.91	25.43	25.48
2002-03	61.37	21.12	25.75	25.63
2003-04	62.47	21.30	26.02	25.76
2004-05	63.45	21.45	26.26	25.87
2005-06	64.32	21.59	26.47	25.97
2006-07	65.09	21.71	26.65	26.06
2007-08	65.78	21.82	26.81	26.14
2008-09	66.40	21.91	26.95	26.21
2009-10	66.95	22.00	27.07	26.27
2010-11	67.44	22.07	27.17	26.32

Note: The abbreviations of the states are same as in Table 3.2.

On the basis of the estimated GEIR(t) and NEIR(t) mentioned in Table 6.7, gross and net interest payment obligation on the projected figures of the debt are estimated. Table 6.9.a, shows the gross and net interest burden estimated on the basis of the base year (1991-92) effective rates of interest. Between 1991-92 to 2010-2011, the ratio of gross interest payment to SDP will rise from 3.31 to 6.49 percent in Kerala, from 1.67 to 2.27 percent in Maharashtra, from 1.56 to 2.39 percent in Tamil Nadu and from 2.05 to 2.42 percent in West Bengal. As regards net interest payment to SDP ratio, there would be an increase from 3.15 percent to 6.18 percent in Kerala, from 0.53 percent to 0.72 percent in Maharashtra, from 1.30 to 2.00 percent in Tamil Nadu and from 1.95 to 2.31 percent in West Bengal. Among the four states, the situation would be the worst for Kerala. By the end of 2010-11, net interest payment would absorb as much as 6.18 percent of the SDP imposing a

heavy burden on the revenue budget of the state in the sense that an additional SDP to the tune of 3.03 percent will have to be mobilised by the state government in order to meet its higher interest obligations. But we have to remember at the same time that this rising trend in interest payment-SDP ratio could have been checked had there been greater recovery of interest receipts, dividends and profits in Kerala so as to reduce the states' net interest payment obligation. In Kerala, the difference between GEIR(t) and NEIR(t) is very small because of the very poor recovery rate. Since NEIR(t) is quite high in Kerala compared to other states it meant also an increase in the net interest payment-SDP

Table 6.9.a: Projection of Gross (GI) and Net (NI) Interest Payment as a percentage of SDP on the basis of the Effective Rate of Interest of the Base year (1991-92)

Year	KE		MAH		TN		WB	
	GI/SDP	NI/SDP	GI/SDP	NI/SDP	GI/SDP	NI/SDP	GI/SDP	NI/SDP
1991-92	3.31	3.15	1.67	0.53	1.56	1.30	2.05	1.95
1992-93	3.45	3.28	1.69	0.54	1.61	1.35	2.04	1.95
1993-94	3.83	3.64	1.77	0.56	1.72	1.44	2.09	2.00
1994-95	4.16	3.96	1.84	0.58	1.82	1.52	2.14	2.04
1995-96	4.46	4.25	1.90	0.60	1.90	1.59	2.18	2.08
1996-97	4.73	4.51	1.95	0.62	1.97	1.65	2.21	2.11
1997-98	4.97	4.73	2.00	0.63	2.03	1.70	2.24	2.14
1998-99	5.19	4.94	2.04	0.65	2.09	1.75	2.27	2.16
1999-00	5.37	5.12	2.08	0.66	2.14	1.79	2.29	2.19
2000-01	5.54	5.28	2.11	0.67	2.18	1.82	2.31	2.21
2001-02	5.69	5.42	2.14	0.68	2.22	1.85	2.33	2.22
2002-03	5.83	5.55	2.16	0.68	2.25	1.88	2.35	2.24
2003-04	5.95	5.66	2.18	0.69	2.28	1.90	2.36	2.25
2004-05	6.05	5.76	2.20	0.70	2.30	1.92	2.37	2.26
2005-06	6.15	5.86	2.22	0.70	2.32	1.94	2.38	2.27
2006-07	6.23	5.94	2.23	0.71	2.34	1.96	2.39	2.28
2007-08	6.31	6.01	2.24	0.71	2.36	1.97	2.40	2.29
2008-09	6.38	6.07	2.25	0.71	2.37	1.98	2.41	2.30
2009-10	6.44	6.13	2.26	0.72	2.38	1.99	2.41	2.30
2010-11	6.49	6.18	2.27	0.72	2.39	2.00	2.42	2.31

Note: The abbreviations of the states are same as in Table 3.2.

ratio. In Maharashtra, despite a rising trend in debt-SDP ratio and corresponding gross interest payment-SDP ratio, the state is most

successful in dealing with the problem of net debt servicing obligations. This has mainly happened because of the better earning through interest receipts plus dividends and profits by the state. In Tamil Nadu and West Bengal also, during the whole projection period net interest payment-SDP ratio increases marginally.

Gross and net interest payment as a percentage of SDP estimated on the basis of the base year (1991-92) effective rates (gross and net) of interest can be compared with the same ratio estimated on the basis of the current year (1992-93) effective rates (gross and net) of interest. Interest burden in respect to SDP with two different interest rates does not differ significantly for all four states. As can be seen from the Table 6.9.b, Kerala's interest payment as a percentage of SDP estimated on the basis of current effective rates of interest is slightly lower than that of the same estimated on the basis of the base year (1991-92) interest rates. In Maharashtra, gross interest payment-SDP ratio remains same in respect to both the interest rates. But net interest payment-SDP ratio is marginally higher in respect to current net effective rate of interest. In Tamil Nadu, gross interest burden in respect to SDP estimated on the basis of the current effective rates of interest are higher than the same ratio estimated on the basis of the base year (1991-92) effective rates of interest. In West Bengal also, same ratio is higher in terms of current effective rates of interest. However, net interest payment-SDP ratio in terms of current NEIR(t) is lower than the ratio estimated on the basis of the base year (1991-92) NEIR(t). In West Bengal, net interest payment-SDP ratio in terms of current effective rates of interest

rates are marginally higher than that estimated on the basis of the basis of the base year interest rate.

Table 6.9.b: Projection of Gross and Net Interest Payment as a percentage of SDP on the basis of the Effective Rate of Interest of 1992-93

Year	KE		MAH		TN		WB	
	GI/SDP	NI/SDP	GI/SDP	NI/SDP	GI/SDP	NI/SDP	GI/SDP	NI/SDP
1991-92	3.18	2.84	1.67	0.63	1.62	1.08	2.10	2.00
1992-93	3.31	2.95	1.69	0.64	1.68	1.12	2.09	2.00
1993-94	3.67	3.28	1.77	0.67	1.79	1.20	2.15	2.05
1994-95	4.00	3.57	1.84	0.69	1.89	1.26	2.19	2.09
1995-96	4.29	3.83	1.90	0.71	1.98	1.32	2.23	2.13
1996-97	4.55	4.06	1.95	0.73	2.05	1.37	2.27	2.16
1997-98	4.78	4.26	1.99	0.75	2.12	1.41	2.30	2.19
1998-99	4.98	4.45	2.04	0.77	2.18	1.45	2.33	2.22
1999-00	5.16	4.61	2.07	0.78	2.23	1.49	2.35	2.24
2000-01	5.32	4.75	2.10	0.79	2.27	1.51	2.37	2.26
2001-02	5.47	4.88	2.13	0.80	2.31	1.54	2.39	2.28
2002-03	5.60	5.00	2.15	0.81	2.34	1.56	2.41	2.30
2003-04	5.71	5.10	2.18	0.82	2.37	1.58	2.42	2.31
2004-05	5.81	5.19	2.19	0.83	2.39	1.60	2.43	2.32
2005-06	5.91	5.27	2.21	0.83	2.42	1.61	2.44	2.33
2006-07	5.99	5.35	2.22	0.84	2.44	1.63	2.45	2.34
2007-08	6.06	5.41	2.24	0.84	2.45	1.64	2.46	2.35
2008-09	6.12	5.47	2.25	0.85	2.47	1.65	2.47	2.35
2009-10	6.18	5.52	2.26	0.85	2.48	1.65	2.48	2.36
2010-11	6.23	5.56	2.27	0.85	2.49	1.66	2.48	2.37

Note: The abbreviations of the states are same as in Table 3.2.

Given the trends in debt-SDP ratio and interest payment-SDP ratio, we have tried to assess the sustainability of debt with reference to the revenue budget of the states. In order to reflect the interest burden on the revenue budget, we project revenue earning of the states on the basis of the nominal income elasticity of revenue receipts. Estimated nominal Income elasticity of revenue receipts is shown in Table 6.10.

Table 6.10: Income Elasticity of Revenue Receipts

KE	MAH	TN	WB
1.096	1.053	1.056	1.042

Note: Income elasticity of revenue receipts is estimated using double log function. The abbreviations of the states are same as in Table 3.2.

The sustainability of a state's public debt is examined on the basis of the following indicators:

$$\frac{\text{GROSS INTEREST PAYMENT}}{\text{REVENUE RECEIPTS}} \times 100$$

$$\frac{\text{NET INTEREST PAYMENT}}{\text{NET REVENUE RECEIPTS}} \times 100$$

Table 6.11.a: Projection of Gross and Net Interest Payment as a percentage of Revenue Receipts on the basis of the Effective Rate of Interest of the Base year (1991-92)

Year	KE		MAH		TN		WB	
	GI/RRC	NI/RRC	GI/RRC	NI/NRC	GI/RRC	NI/NRC	GI/RRC	NI/NRC
1991-92	16.95	16.25	11.86	4.09	8.22	6.97	17.68	17.00
1992-93	17.46	16.74	11.95	4.12	8.45	7.17	17.55	16.87
1993-94	19.18	18.40	12.42	4.30	8.96	7.60	17.90	17.21
1994-95	20.66	19.84	12.82	4.45	9.38	7.97	18.19	17.49
1995-96	21.92	21.06	13.16	4.58	9.74	8.28	18.43	17.73
1996-97	22.00	22.10	13.44	4.69	10.04	8.54	18.63	17.92
1997-98	23.91	22.99	13.67	4.78	10.29	8.75	18.79	18.07
1998-99	24.67	23.73	13.86	4.85	10.49	8.93	18.92	18.20
1999-00	25.31	24.35	14.01	4.91	10.66	9.07	19.01	18.29
2000-01	25.83	24.86	14.13	4.96	10.79	9.18	19.08	18.36
2001-02	26.26	25.27	14.22	4.99	10.89	9.27	19.13	18.41
2002-03	26.60	25.60	14.29	5.02	10.97	9.34	19.16	18.43
2003-04	26.86	25.86	14.34	5.04	11.03	9.39	19.18	18.45
2004-05	27.05	26.05	14.37	5.05	11.06	9.42	19.18	18.45
2005-06	27.19	26.18	14.38	5.05	11.09	9.44	19.16	18.43
2006-07	27.28	26.26	14.38	5.05	11.10	9.45	19.14	18.41
2007-08	27.32	26.30	14.37	5.05	11.09	9.45	19.10	18.38
2008-09	27.32	26.31	14.34	5.04	11.08	9.43	19.06	18.34
2009-10	27.29	26.28	14.31	5.03	11.06	9.42	19.01	18.29
2010-11	27.23	26.22	14.27	5.01	11.03	9.39	18.96	18.24

Note: GI = Gross Interest, NI = Net Interest and RRC = Revenue Receipts. The abbreviations of the states are same as in Table 3.2.

Indicators of sustainability defined as the ratio of gross interest payment to revenue receipts measures the gross outgo on account of interest payment from state's total revenue earning. But as we know that gross interest payment do not reflect the accurate intensity of the debt burden we measure the sustainability on the basis of the net interest payment-revenue receipts ratio. It is evident from the Table 6.11.a, that though the ratio of gross and net interest payment to revenue receipts show rising trend in all four states, the increase is marginal in Maharashtra, Tamil Nadu and West Bengal. But in Kerala, gross interest payment-revenue receipts ratio and net interest payment-revenue receipts ratio shows a sharp increase during this period. Between 1991-92 to 2010-2011, gross interest payment-revenue receipts ratio increases from 16.95 percent to 27.23 percent in Kerala, from 11.86 percent to 14.27 percent in Maharashtra, from 8.22 percent to 11.03 percent in Tamil Nadu and from 17.86 percent to 18.96 percent in West Bengal. As far as the burden of net interest payment is concerned, we can see from the Table 6.11.a that net interest payment revenue receipts also shows a rising trend in all four states. But the net interest payment-revenue receipts ratio is lowest in Maharashtra, followed by Tamil Nadu, West Bengal and Kerala.

Burden of gross and net interest payment on the revenue budget of the states estimated on the basis of the base year (1991-92) effective rates of interest can be compared with that of the current (1992-93) effective rates of interest. As can be seen from the Table 6.11.b, gross and net outgo on account of interest payment as a percentage of total revenue receipts of Kerala, estimated on the basis of the current effective rates of interest

are lower than that of the base year. In other three states the increase in the same ratio is marginal.

Table 6.11.b: Projection of Gross and Net Interest Payment as a percentage of Revenue Receipts on the Basis of the Effective Rate of Interest of 1992-93

Year	KE		MAH		TN		WB	
	GI/RRC	NI/RRC	GI/RRC	NI/RRC	GI/RRC	NI/RRC	GI/RRC	NI/RRC
1991-92	16.28	14.79	11.83	4.81	8.56	5.88	18.14	17.44
1992-93	16.77	15.24	11.92	4.85	8.80	6.05	18.00	17.31
1993-94	18.42	16.78	12.39	5.06	9.33	6.43	18.36	17.66
1994-95	19.84	18.10	12.79	5.23	9.77	6.74	18.66	17.95
1995-96	21.05	19.23	13.13	5.38	10.15	7.01	18.91	18.19
1996-97	22.09	20.20	13.40	5.51	10.46	7.23	19.11	18.39
1997-98	22.96	21.02	13.63	5.61	10.72	7.42	19.27	18.55
1998-99	23.70	21.71	13.82	5.69	10.93	7.57	19.40	18.67
1999-00	24.31	22.28	13.97	5.76	11.10	7.69	19.50	18.77
2000-01	24.81	22.76	14.09	5.82	11.24	7.79	19.57	18.84
2001-02	25.22	23.14	14.19	5.86	11.34	7.87	19.62	18.89
2002-03	25.54	23.45	14.25	5.89	11.42	7.92	19.66	18.92
2003-04	25.80	23.69	14.30	5.91	11.48	7.97	19.67	18.93
2004-05	25.98	23.86	14.33	5.92	11.52	8.00	19.67	18.93
2005-06	26.12	23.99	14.34	5.93	11.55	8.01	19.65	18.91
2006-07	26.20	24.07	14.34	5.93	11.56	8.02	19.63	18.89
2007-08	26.24	24.11	14.33	5.92	11.55	8.02	19.59	18.86
2008-09	26.24	24.11	14.31	5.91	11.54	8.01	19.55	18.82
2009-10	26.21	24.08	14.28	5.90	11.52	7.99	19.50	18.77
2010-11	26.15	24.03	14.24	5.88	11.49	7.97	19.44	18.71

Note: GI/RRC = Gross Interest Payment/Revenue Receipts,
 NI/NRR = Net Interest Payment/ Net Revenue Receipts,
 NRR = Gross Revenue Receipts-(Interest Receipts+
 Dividends & Profit),
 The abbreviations of the states are same as in Table 3.2.

Summary

The above analysis brings out that there are significant inter-state differences in the movement of debt-SDP ratio, interest payment-SDP ratio and interest payment-revenue receipts ratio. The general impression that the states' debt is on a unsustainable growth trajectory is not borne out by our calculations. Of the four states we have studied, the debt-SDP ratio in 1991-92 (the base year projections) was the highest for Kerala (33.55 percent), followed by West Bengal (22.16 percent), Tamil Nadu (18.25 percent)

and Maharashtra (16.39 percent). After 20 years, i.e. in 2010-2011, the ordering of four states likely to undergo a change, with Kerala's ratio at 67.44 percent, followed by Tamil Nadu (27.17 percent), West Bengal (26.32 percent) and Maharashtra (22.07 percent). Kerala is in fact, the one state whose ratio was the highest to start with and whose ratio records the maximum relative increase. For the other three states, the increase in the debt-SDP ratio has been rapidly decelerating and virtually stabilising. In Kerala, not only the projected increase in debt-SDP ratio is substantial, but also the interest burden will mount and the ratio of the gross interest payment to GDP will almost double from 3.31 percent to 6.49 percent in twenty years. In contrast, for the other three states, the ratio will be below 2.50 percent. Thus the burden of interest payment will be the highest in Kerala and since, going by the past experience, with respect to recoveries, there is very little difference between gross and net interest burden indicating poor recoveries. The maximum revenue mobilisation effort will have to be made in Kerala to meet its debt servicing obligations. According to our calculations, the state government should undertake additional revenue mobilisation to the tune of 3.03 percent of GDP (6.18 minus 3.15) compared to that in 1991-92 in order to meet its additional debt servicing obligation. For other three states, the corresponding required additional revenue will be below one percent of GDP. In fact in Maharashtra and West Bengal the figure is below 0.5 percent. Thus, if at all doubt can be raised with regard to the sustainability of debt about a state, it is Kerala. Even in the case of Kerala, the question is out of judgement about the capacity of the state to mobilise the required additional revenue. Here, it is appropriate to recall that in

kerala the recovery has been very poor. Improvement in recoveries could be one way of mobilising additional revenue. Also, the assumptions underlying our estimation with respect to growth of revenue on the basis of income elasticity of revenue, and growth of SDP may, in reality may prove to be pessimistic. In that case, even for Kerala it may not be very difficult to undertake the necessary revenue mobilisation.

Appendix 6A

For the sustainability of the domestic debt-GDP ratio, stability condition derived by Rangarajan et al. (1989) is

$$[he+(1-h).k]>i \quad (6A.1)$$

where h =fraction of domestic borrowing on lent=0.4,
 e =nominal interest rate on domestic lending=7.4 percent,
 k =nominal rate of growth of GDP=12 percent,
 i =nominal interest rate on domestic borrowing=10.2 percent.

Thus ' he ' is the rate of interest earning on the domestic lending by the central government, and ' $(1-h).k$ ' is the rate of direct return on the domestic borrowing by the government which is not on lent. Stability condition shows that the sum of the rate of return on domestic lending and rate of return which is not on lent should be greater than the rate of interest on domestic borrowing.

Stability condition for debt-GDP ratio derived by Ranjarajan et al. (1989) shows that for the sustainability of domestic debt-GDP ratio, rate of growth of the GDP should be more than the rate of interest. This point will be explicit if we assume that $h=0$ implying that there is no government lending. In such situation for the stability of the debt-GDP ratio k should always be greater than i . Since in the real situation some amount of government lending will be there, increasing GDP growth will always increase the rate of return on $(1-h).k$ and the stability condition will hold good. But if the reverse happens, debt-GDP ratio will rise explosively and debt will be unsustainable.

Values assigned to different parameters required to satisfy the stability condition, namely, nominal GDP growth, fraction of

domestic borrowing on lent, interest rate on domestic lending and the rate of interest on domestic borrowing by Rangrajan et.al satisfy the stability condition. The fulfilment of the condition for a stable time path of the debt-GDP ratio on the one hand and explosive rise in debt-GDP ratio on the other is paradoxical. This is because of the change in the approach of the study in the latter part of the exercise where emphasis was given to the movement of the net primary deficits and model formulation was such that net primary deficit increased at an increasing rate than any other variables in the model, namely, government receipts, government expenditure and the assumed GDP growth of 12 percent. So far as the movement of the deficit is concerned, Domar has clearly pointed out that if national income grows at a constant relative rate of growth and if a constant fraction of that income is borrowed, it essentially implies that deficit will also grow at the same relative rate. Though Rangarajan et al.'s study assumes that nominal GDP will grow at a constant relative rate of 12 percent per year, it does not take into account the second assumption that a constant fraction of the GDP will be borrowed. This is the basic difference in between the approaches of Rangarajan et al. (1989) and Domar.

In Rangarajan et al. (1989) estimate projection of public debt and interest burden is done by deriving the net primary deficit through intertemporal budget constraint. During the projection period 1987-88 to 1999-2000, the ratio of net primary deficit to GDP increased by 6.6 percentage points from 4.5 percent to 11.1 percent within a period of 13 years. Sharp increase in the net primary deficit during the projection period is not in conformity with the

trends in net primary deficits in India during the past. Net primary deficit as a percentage of GDP increased from 1.9 percent in 1970-71 to 3.9 percent in 1988-89, only 2 percent increase in the ratio during the last 19 years. Due to the sharp increase in net primary deficit during the projection period, the absolute increase in debt is phenomenal compared to the increase in GDP. Faster increase in debt than GDP resulted in an increase in the debt-GDP ratio at a level of 149.65 percent by the end of the century.

Projection of debt-GDP ratio of Rangarajan et al. can be compared with the actual of the same till 1992-93. The comparison of the estimated debt-GDP ratio from 1988-89 to 1992-93 with the actual show that actual debt-GDP ratio is far below from the projection. As can be seen from the Table 6A.1, between 1988-89 to 1992-93,

Table 6A.1: Projected and Actual Debt-GDP Ratio (percent)

Year	Debt/GDP (1) (Projected)	Debt/GDP (2) (Actual)
1987-88	44.60	44.60
1988-89	49.24	50.26
1989-90	54.53	52.73
1990-91	60.50	53.84
1991-92	67.18	46.43
1992-93	74.59	45.43

Note: Actual debt-GDP ratio is calculated following the definition of debt used by Rangrajan (et al.)¹.

Source: RBI Report on Currency and Finance and Economic Survey.

¹ Measurement of Domestic debt by Rangrajan et al. excludes 'special floating and other loans', 'reserve funds', and 'deposits'.

projected debt-GDP ratio increased from 44.60 percent to 74.59 percent, whereas the actual debt-GDP ratio increased from 44.60 percent in 1988-89 to 53.84 percent in 1990-91. After that it started showing declining trend. Between 1991-92 to 1992-93, actual debt-GDP ratio declined from 46.43 percent to 45.43 percent.

Arriving at the volume of outstanding debt by looking at the movement of net primary deficit gave a wrong impression about the future projection. In view of this situation, the question of sustainability of the domestic debt of the central government as done by them needs a fresh look. As we know,

$$t = (\alpha/r) * i \quad (6A.2)$$

sustainability of debt has to be judged by looking at the movement of α , r and i . For a comparative analysis, of our estimate with that of Rangarajan et al. (1989) we take the same base year (1987-88) and base year values of different parameters assumed in their study. We have estimated base year (1987-88) ' α ' using alternative estimates of debt followed by Rangarajan et al.. Projection in our approach, even after taking the same base year and base year values of different parameters assumed by Rangarajan et al. shows that increase in debt-GDP ratio and the interest-payment-GDP ratio is moderate. Base year outstanding debt according to it's alternative measurement (see footnote 1 in this appendix) done by Rangarajan et al. is Rs. 147,473 crores. Base year GDP figure calculated from the debt-GDP ratio of the base year is Rs. 330,656 crores. The fraction of GDP borrowed is 7 percent. Fraction of GDP borrowed, ' α ' is assumed to be constant in our estimation.

Thus,

α =7 percent (the fraction of GDP borrowed)

i =8.45 percent, (weighted average of the rate of interest of the debt held outside the RBI and with the RBI).

r = 12 percent (nominal rate of growth of the economy)

Rate of inflation is 7 percent. Thus the real rate of growth of the economy is 5 percent and real rate of interest is 1.45 percent.

On the basis of these values debt-GDP ratio projected for 1988-89 to 1999-2000 can be seen from the Table 6A.2. During this period, in our estimate, debt-GDP ratio increases from 44.60 percent to 54.81 percent and the interest payment- GDP ratio which is the burden of debt increases from 3.24 percent to 4.10 percent.

As we know that instead of gross interest payment net interest payment reflects the true burden, net interest payment-GDP ratio has been estimated. Net interest payment of the base year has been estimated by netting out the interest earning of the central government. In order to calculate net interest payment obligation, gross interest payment should be netted out by interest earning plus dividends and profits because dividends and profits are also the earning on the investment made out of borrowed funds. In Rangarajan et al. (1989) estimate, gross interest payment has been netted out only by interest earning of the central government. For a comparison of our results with that of Rangarajan et al., net interest burden in our estimate has also been derived by netting out only the interest earning of the central government. For the projection of net interest payment we also assume as assumed by Rangarajan et al that the ratio of the net to gross interest payment will remain constant throughout the projection period. As

can be seen from the Table 6A.2, in our estimate, net interest payment as a percentage of GDP increase from 1.32 percent to 1.67 percent. If we increase the period of projection, beyond 2000, debt-GDP ratio and interest payment-GDP ratio stabilises at some point of time.

Table 6A.2: Projection of debt-GDP ratio and Interest Payment-GDP Ratio (percent)

Year	DEBT/GDP	GIP/GDP	NIP/GDP
1987-1988	44.60	3.24	1.32
1988-1989	46.07	3.36	1.37
1989-1990	47.39	3.48	1.42
1990-1991	48.56	3.58	1.46
1991-1992	49.61	3.66	1.49
1992-1993	50.54	3.74	1.53
1993-1994	51.38	3.81	1.56
1994-1995	52.12	3.88	1.58
1995-1996	52.79	3.93	1.60
1996-1997	53.38	3.98	1.62
1997-1998	53.91	4.03	1.64
1998-1999	54.39	4.07	1.66
1999-2000	54.81	4.10	1.67

Apart from the ratio between interest payment and GDP sustainability of the domestic debt of the central government can be judged by looking at the burden of interest payment on the revenue budget of the central government. Movement of the gross and net interest burden on the revenue budget of the central government can be seen from the Table 6A.3. Between 1987-88 and 1999-2000, gross interest payment on domestic debt as a percentage of revenue receipts increases from 27.50 to 28.14 percent and net interest payment as a percentage of revenue receipts increases from 12.64 to 12.97 percent. Whereas in Rangarajan et al. estimate, the ratio between gross and net interest payment to revenue receipts increases from 26.16 to 68.90 percent and 11.43 percent to 30.10 percent respectively during the same period of time.

Table 6A.3: Gross and Net Interest Burden on the Revenue Budget of the Central Government (percent)

Year	GIP/RRC	NIP/RRC
1987-1988	27.50	12.64
1988-1989	28.03	12.92
1989-1990	28.45	13.13
1990-1991	28.75	13.29
1991-1992	28.94	13.39
1992-1993	29.05	13.45
1993-1994	29.08	13.46
1994-1995	29.04	13.44
1995-1996	28.94	13.39
1996-1997	28.80	13.31
1997-1998	28.61	13.22
1998-1999	28.39	13.10
1999-2000	28.14	12.97

Table 6A.4: Comparison of Different Estimates of Debt Burden with the Actual. (percent)

Year	Our Estimates		Rangarajan et al. Estimates		Actual	
	GIP/RRC	NIP/RRC	GIP/RRC	NIP/RRC	GIP/RRC	NIP/RRC
1987-88	27.50	12.64	26.16	11.43	27.50	12.64
1988-89	28.03	12.92	28.30	12.36	22.40	10.10
1989-90	28.45	13.13	30.71	13.42	24.05	12.37
1990-91	28.75	13.29	33.39	14.59	24.58	14.89
1991-92	28.94	13.39	36.34	15.88	27.72	14.77
1992-93	29.05	13.45	39.54	17.28	23.62	12.66

Note: In our estimate 'Income Elasticity of Revenue Receipts' is assumed 1.2 percent, GIP = Gross Interest Payment, NIP = Net Interest Payment, RRC = Revenue Receipts

Our projection of interest burden on the revenue budget of the state can be compared with that of Rangarajan et al. (1989) and the actual. From the Table 6A.4, it is evident that upto 1992-93, our estimate of gross interest payment and revenue receipts ratio also is an over estimation. But it is closer to the actual than that of the Rangarajan et al. estimate. However, as far as the movement of the net interest payment revenue receipts ratio is concerned, it can be seen that our estimate is as close as to the actual. Another point to be noted here is that in our approach, debt-GDP

ratio, interest payment-GDP ratio and the ratio between interest payment and revenue receipts though show a rising tendency in the short run it stabilises at some point of time if projection period increases.

CHAPTER VII

SUMMARY AND CONCLUSION

Our analysis of the states' public debt show that borrowing has become a major instrument of financing the expenditures of the states. Increasing resort to borrowing contributed to the rapid increase in debt and corresponding debt servicing obligations. In our study we have analysed the indebtedness of the states of Kerala, Maharashtra, Tamil Nadu and West Bengal, starting with an examination of the trends, composition and the burden of public debt in these states during the 1980s. Factors behind the rapid growth of debt and its future sustainability are the other major issues investigated in our exercise.

While 'Loans and Advances from the Central Government', is the major component of the states' debt, the analysis of the composition of the state debt (all states) show that the share of Central Loans in total outstanding debt is declining. The share of 'Internal Debt', and its major component 'Market Loans and Bonds', also shows the same trend. There is, on the other hand, an increase in the share of 'Provident Fund (etc.)' in the states' total outstanding debt. The position in regard to the composition of debt differs between the states. As between the four states we have studied, in Kerala and West Bengal during the period 1980-81 to 1992-93, the share of 'Internal Debt' and its major component, 'Market loans and Bonds', increased. In Tamil Nadu also market borrowing is quite high compared to Maharashtra. Though the share of 'Loans and Advances from the Central Government' in total outstanding debt declined in Kerala, Tamil Nadu and West Bengal,

the share of central loans, in Maharashtra increased by more than 10 percent (from 68.6 to 79.4 percent) during this period. Market borrowing, being at stiffer terms has imposed higher burden of debt servicing in Kerala, Tamil Nadu and West Bengal.

The analysis of the trends in net central loans, after allowing for repayment and interest, to the states show that barring Maharashtra with the exception of one year, other three states experienced negative loan transfers during the different years of 1980s. Heavy debt servicing obligation on central loans have reduced the net availability of resources transferred from the centre to the states. During the last two plan periods, more than 30 percent of the total resources transferred from the Centre went back on account of debt servicing charges on Central Loan in Kerala, Maharashtra and West Bengal. In Tamil Nadu, reverse flow of resources during this period was of the order of 20 percent.

Our analysis of the expenditure pattern of state governments under plan and non-plan classification shows that during the 1980s, plan expenditure as a percentage of total expenditure declined. Increasing share of non-plan expenditure in total expenditure reduced the revenue resources for plan expenditure. Reduction in the revenue resources for plan expenditure resulted in the large scale borrowing by the states to finance their plan expenditure. The ratio of current borrowing plan expenditure for all states increased sharply during this period. In different years of 1980s, in Kerala and West Bengal, revenue earning alone became insufficient even to meet their non-plan expenditures and borrowing was resorted in order to cover not only plan but also non-plan

expenditures.

Our analysis of the states' expenditure by developmental and non-developmental classification shows that developmental expenditure as a percentage of total expenditure declined significantly in Kerala, from 77.73 to 67.82 percent, and in West Bengal, from 77.52 to 71.25 percent, during the 1980s. In Maharashtra and Tamil Nadu, corresponding decline was not much except for a few years. In all four states, however, non-developmental expenditure grew at a higher rate than the developmental expenditure during this period. Increasing non-developmental expenditure has been taking away larger proportion of the total revenue earning of the states and as a result revenue resources available for developmental expenditure as a percentage total revenue receipts declined in all four studied states. In Kerala, the decline was from 73.92 to 59.24 percent, followed by West Bengal, from 71.94 to 62.29 percent. In Tamil Nadu and Maharashtra, the decline was by more than 6 percentage points. The decline in this particular ratio has meant an increase in the proportion of developmental expenditure financed out of borrowing in all four states.

The analysis of expenditure side of the revenue account also shows that among the different components of revenue expenditure, interest payment grew at the highest rate in the four states. During 1980-81 to 1992-93, interest outgo as a percentage of total revenue expenditure of all states together increased from 8.02 percent to 14.07 percent. In the capital account, among the different components capital expenditures, repayment obligation grew at the highest rate during this period.

The analysis of budgetary trends in four states shows that persistent revenue account gap is the major reason behind the rapid increase in debt during the 1980s. Rapid expenditure growth unmatched by revenue growth of the same order, contributed to the increasing revenue account gap. Among the four states, West Bengal had a continuous gap in the revenue account during the 1980s. Kerala also had revenue account gap except for two years. Maharashtra and Tamil Nadu plunged into large revenue account deficit during the latter half of the 1980s. In spite of high growth of revenue in all four states (around 15 percent), revenue account gap persisted because of the even faster growth of expenditure in the revenue account. As regards composition of revenues, while the states' own tax revenues registered rapid growth, their own non-tax revenues did not increase satisfactorily. Also the growth in non-debt creating central transfers was lower. Poor performance in non-tax revenue earning of Kerala and West Bengal compared to Maharashtra and Tamil Nadu, not only reduced the overall revenue earning of the states, poor recovery in the form of 'interest receipts', 'dividends and profit' failed to reduce the net interest burden.

The burden of debt, measured on the basis of the specified state level macro indicators, showed that among the four studied states, the situation is severe in Kerala. In Kerala, debt-SDP ratio has reached 36 percent in 1991-92. In Maharashtra and West Bengal also debt-SDP ratio showed a rising trend till 1987-88. But near constancy in debt-SDP ratio is maintained in Tamil Nadu during the period, 1980-81 to 1992-93.

Having drawn a distinction between gross and net interest burden to assess the burden of debt servicing, the ratio of net-outgo on account of interest payment to governments' revenue receipts is rather high in Kerala and West Bengal compared to Tamil Nadu and Maharashtra. In 1992-93, the ratio of the net outgo on account of interest payment to government receipts was only at 4.46 percent in Maharashtra whereas the same ratio was significantly higher at 18.05 percent in West Bengal and 15.06 percent in Kerala. In Tamil Nadu, net outgo on account of interest payment as a percentage of revenue receipts was 7.59 percent.

With the burden of debt of the states increasing, the issue of sustainability becomes very relevant even for the states. A high ratio of net outgo on account of interest payment to revenue receipts of the states means a reduction in the availability of funds for non-interest government expenditure. Of course the question of sustainability is tied also to the effort a government makes in mobilising its revenues.

In order to judge the sustainability of state debt, we have worked out the future time profile of debt-SDP ratio for the four studied states on the basis of certain assumptions regarding the SDP growth and the future rate of borrowing. By estimating the nominal income elasticity of revenue receipts we have derived the future time profile of interest payment revenue receipts ratio also. Indicators like debt-SDP ratio, interest payment-SDP ratio, and interest payment revenue receipts ratio show variation across the states. Among the four studied states, debt-SDP ratio of Kerala shows a sharp increase from 35.55 percent in 1991-92 to 67.44

percent in 2010-2011. During this period, although the debt-SDP ratio increases from 16.39 percent to 22.07 percent in Maharashtra, from 18.25 percent to 27.17 percent in Tamil Nadu and from 22.16 percent to 26.32 percent in West Bengal, the increase is evidently not sharp as in Kerala. In fact in the three states other than Kerala the trend is of deceleration in the debt-SDP ratio. The increase in gross and net interest payment to GDP ratio during 1991-92 to 2010 to 2011, is also moderate in these three states. The increase in the interest payment GDP ratio, from 1991-92 to 2010-2011, is of below one percentage point in these three states. In Kerala, however, the increase in the ratio of gross and net interest payment to GDP is significantly higher than in the other three studied states, being of over three percentage points. The ratio of gross and net interest payment to revenue receipts increases for the four studied states but the increase is not sharp in Maharashtra, Tamil Nadu and West Bengal. During 1991-92 to 2010-2011, net interest payment revenue receipts ratio increases from 4.09 to 5.01 percent in Maharashtra, from 6.97 to 9.39 percent in Tamil Nadu and 17.00 to 18.24 percent in West Bengal. In Kerala, during this period, net interest payment revenue receipts ratio increases sharply from 16.25 to 26.22 percent. The reason why the ratio of interest outgo to revenue receipts in the four studied states rises much more than the ratio interest outgo to GDP, is partly because of our assumptions with regard to the growth of revenue. Revenue receipts during the projection period, it will be recalled, has been derived by estimating the nominal income elasticity of revenue receipts. Taking revenue growth alone, the ratios of interest payment to revenue receipts, would be much lower than those shown by our study. It would be so even for Kerala.

The broad conclusion our study reaches is that though the ratio of the interest outgo to revenue receipts doubled during the 1980s, it would be inappropriate to argue that debt would become unsustainable in the future. The problem of rising debt burden at the state level has to be viewed as a problem of an expansion of state revenues, which in turn, are closely related to SDP. Higher SDP growth should always reduce the burden of growing public debt at the state level in terms of the additional revenue effort required to cover debt servicing. Our sustainability exercise shows that if SDP growth is not high, the burden of debt would be heavier. Kerala's SDP growth has been the lowest among the four states whereas, the fraction of SDP borrowed is highest. Because of relatively low SDP growth of Kerala and relatively low revenue growth, debt-SDP ratio, interest payment-SDP ratio and interest payment-revenue receipts ratio show sharp rising trend during the projection period.

Thus states, like the nation, have to make sure that their expenditures promote the growth of their SDP. Growing SDP would enable them to absorb the burden of servicing of growing public debt without having to impose heavy additional tax burden. Sustainability of public debt depends ultimately on the growth of SDP and the states' revenue effort.

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