CHAPTER 2
THEORETICAL ISSUES IN PUBLIC DEBT
AND REVIEW OF EMPIRICAL LITERATURE

2.1 Introduction

Adam Smith was of the view that the State was wasteful; it took borrowed funds for reproductive purposes from private capitalists, and deprived them of capital which was badly needed for promoting production and trade. To quote him, "a certain portion of the annual produce turned away from serving in the creation of a capital to serve as a revenue; from maintaining productive labourers, to

The views of classical economists on public debt depended on their faith in the role of the government in the economic life of a country. J.B. Say observes that, "there is a grand distinction between an individual borrower and a borrowing government, that, in general, the former borrows capital for the use of beneficial employment, the latter for the expenditure of current expense."

He believed that the burden of the debt could be shifted over a great number of successive years, if used otherwise.

In this chapter, an attempt is made to discuss the various theoretical issues surrounding public debt. The issues discussed include, burden of debt as viewed by the classical, Keynesian and modern economists, the sustainability of domestic debt, debt and inflation and the 'crowding out' debate. The macro economic implications of domestic debt accumulation and policy options are also discussed. A survey of empirical literature on the problem of public debt of the Central and State Governments in India is included as the last section of the chapter.

2.2 Classical views on Public Debt
country. J.B. Say observes that, "there is a grand distinction between an individual borrower and a borrowing government, that, in general, the former borrows capital for the purpose of beneficial employment, the latter for the purpose of barren consumption and expenditure." He believed that the burden of the debt could be shifted over a great number of successive years.

Adam Smith was of the view that the State was wasteful; it took borrowed funds for unproductive purposes from private capitalists and deprived them of capital which was badly needed for promoting production and trade. To quote him, "a certain portion of the annual produce turned away from serving in the function of a capital to serve in that of a revenue; from maintaining productive labourers to maintaining unproductive ones, and to be spent and wasted, generally in the course of the year, without even the hope of any future reproduction."

Ricardo too was convinced of the wastefulness of public expenditure. He admitted that debt service involves transfer payments within the community, but did not know whether the recipients of such income would "employ it productively" or "squander it unproductively." Ricardo was greatly concerned with the effects of
public debt. "National Debt was an evil which almost any sacrifice would not be too great to get rid of. It destroyed the equilibrium of prices."³ On the question of shifting the burden of the debt to the future generations, Ricardo was explicit: "the argument of charging posterity with the interest of our debt, or of relieving them from a portion of such interest is often used by otherwise well informed people, but we confess, we see no weight in it."⁴

According to Malthus, the existence of the national debt by maintaining a body of "unproductive consumers" contributed "powerfully to distribution and demand."⁵ He argued that public debt contributed among other things to the evils resulting from changes in the value of money and expressed the desirability of containing the growth of public debt. J.S. Mill argued that "government borrowing was harmful because it destroys capital which could otherwise be used for productive employment."⁶ According to Mill, it is expedient to pay off a debt as early as possible either through immediate payment by a general contribution or by gradual payment from the surplus revenue.

Adam Smith, Say, and Ricardo disapproved of public debt because they thought it interfered with the natural order which was
conducive to the creation of wealth and increase in the material welfare of the nation.

The classical formulation of public debt found its best expression only in the last two decades of the 19th century in the works of H.C. Adams, C.F. Bastable and P. Leroy-Beaulieu. They made a distinction between the creation of public debt per se and the effects of public expenditure.

Adams held that “a loan calls for no immediate payment from the people—the lenders are satisfied, since they have secured a good investment.” He refuted the argument that the burden of the expenditure cannot be shifted forward in time.

Bastable stated that public credit is only one form of credit in general and is governed by the same principles which control private credit. Making a distinction between loan and tax finance, he wrote “A loan is voluntary and supplied by willing givers, taxation is levied on the willing and unwilling alike. To make things smooth for the present at the cost of the future is not the duty of the wise and farseeing Statesman.” He felt that it was only partly true that loans are made out of capital and taxes are paid out of new income. Public
debt affects income as well as capital and taxation affects capital as well as income.

Paul Leroy - Beaulieu made one of the clearer expositions of the classical position on public debt. He remarked that a public debt is, in and of itself, neither a good nor an evil. He criticised the classicists for their failure to see that public expenditure can be productive. As he puts it, “a loan will be useful or harmful to the society in general depending on whether the State preserves and usefully employs the proceeds or wastes or destroys the capital which the rentiers have given up.”

The following set of propositions summarize the dominant views of the classical school on public debt:

a) Government loan finance withdraws funds from productive private employment.

b) Deficits are less painful than current taxes; unbalanced budgets therefore expand governmental activity and invite irresponsible governmental action.
c) Government borrowing makes future financing more difficult by increasing the proportion of the budget which must go for fixed charges and by increasing the amount of taxes which must be paid to finance the interest on the debt.

d) Loan finance is costly; public outlays financed in this way must be paid for twice—once in meeting the interest charges and once in amortising the debt.

e) Public debt leads to currency depreciation\(^1\).

2.3 Keynesian Theory of Public Debt.

The economics of public debt in modern public finance was powerfully influenced by the Keynesian Revolution which produced theoretical results entirely different from the body of economic thought existing at the time of its development. The scientific basis for the modern theory of public debt was provided by the General Theory of Employment, Interest and Money in 1936. The new theory in its purest form finds expression in Functional Finance which holds that "the absolute size of the national debt does not matter at all, and that, however large the interest payments that have to be made, these do not constitute any burden upon society as a whole."\(^2\)
The proponents of the 'no burden' doctrine treat the economy as a unit, and accordingly hold... "that private debt differs from national debt in being external. It is owed by one person to others. That is what makes it burdensome. Because it is interpersonal, the proper analogy is not to national debt but to international debt. A nation owing money to other nations is impoverished or burdened in the same kind of way as a man who owes money to other men. But this does not hold for national debt which is owed by the nation to citizens of the same nation. There is then no external creditor. We owe it to ourselves."

The society in this analysis, is regarded as being analogous to a family. It also ignores the distinction between economic order based on private enterprise and a command economy.

The 'no burden' thesis also relies on certain advantages of public borrowing. Through debt creation, the government can tap savings streams, put the resources thus raised to productive use and bring about an increase in national income. The increased flow of income facilitates the payment of taxes to service the debt. At the time of unemployment, increase in public debt contributes to current capital formation. It promotes the development of more and more institutionalised sources of savings like banks, stock markets and insurance companies. It helps curb consumption, encourages savings
and promotes capital formation and makes it possible for the people of a country to improve their standard of living.

2.4 Post Keynesian Theories of Public Debt

2.4.1 Buchanan Thesis

J.M. Buchanan calls the currently dominant theory of public debt the ‘New Orthodoxy’ which according to him is based on three basic propositions:

(a) The creation of public debt does not involve any transfer of the primary real burden to future generation.

(b) The analogy between individual or private debt and public debt is fallacious.

(c) There is a sharp and important distinction between an internal debt and an external debt.

Since the publication of Buchanan’s *Public Principles of Public Debt* (1958), “the time honoured controversy over the burden of the National Debt has flared up once more. The view that the National Debt is no burden on the economy and that the real cost of government
expenditure, no matter how financed cannot be shifted to future
generations has been on the retreat under a powerful attack by the
contributions of J.M. Buchanan, J.E. Meade and R.A. Musgrave.\textsuperscript{13}

Buchanan has tried to prove that in the most general case,

\begin{enumerate}
\item[(a)] the primary real burden of a public debt is shifted to future
generations.
\item[(b)] the analogy between public debt and private debt is
fundamentally correct.
\item[(c)] the external debt and the internal debt are fundamentally
equivalent.
\end{enumerate}

Buchanan asserted that payment of taxes is per se a burden.
Since debt finance postpones the levy of taxes, it obviously shifts
burden to future generations. Justification for this is that taxes are
compulsory and involuntary. In contrast, market transactions,
including the purchase of public debt are voluntary agreements.
Buchanan's view implies that democratic societies "burden"
themselves, whenever they agree to a social compact binding on their
members. On the other hand, agreements which do not involve governmental coercion evidently burden none of the participants.

2.4.2 Bowen-Davis-Kopf on Burden of Debt

Bowen-Davis-Kopf (1960)\textsuperscript{14} (BDK) in a joint article supported James Buchanan, but pointed out that Buchanan

(a) did not define real burden in a satisfactory manner,

(b) defined "generations" in such a manner that the same person could be considered a member of many different generations.

The authors tried to rectify these deficiencies and argued that if the real burden of the debt is defined as the total amount of private consumption goods given up by the community at the moment of time the borrowed funds are spent, then the cost of the public project simply must be borne by the generation alive at the time the borrowing occurs. It is the existence of marketable bonds that transfer the real burden of debt-financed government expenditure to future generations.

2.4.3 Modigliani Burden Thesis

Another significant Post-Keynesian public debt theory is Modigliani's Burden Thesis (1961)\textsuperscript{15}. He adopted the aggregate effects of debt finance on the future level of real income for the...
society as a whole. Scitovsky (1961) argued that “the burden of Public debt can be shifted if by burden is meant what individuals consider a burden: the balance of private costs and private benefits, corrected for changes in disposable income occasioned by the public debt.”

Musgrave (1959) held the view that it will be equally advantageous for the government to use tax or loan finance. “If the taxpayer wishes to spread his burden, he may secure a tax or consumer loan and thus obtain command over resources that otherwise would have gone into capital formation. The outcome will be similar to that of public loan finance, the only difference being that private rather than public debt is issued ... public loan finance may then be thought of as a means of enabling individual taxpayer to secure tax credit at equal term. By placing payment on a pay-as-you-go basis, loan finance remains a significant instrument of policy even though it does not increase the total availability of resources.”

2.4.3 Modigliani Burden Thesis

Another significant Post-Keynesian public debt theory is Modigliani’s Burden Thesis (1961). He adopted the aggregate
investment approach with a view to isolate the economic effects of the national debt. His conclusions include:

(a) Given the government purchase of goods and services, an increase of the (real) national debt whether internal or external is generally advantageous to those present at the time of increase.

(b) An increased national debt will generally place a gross burden on those living beyond that time through a reduction in the aggregate stock of private capital.

(c) If the rate of interest at which the government borrows can be taken as a good approximation to the marginal productivity of capital, then the gross burden(gain) to future generation can be measured by the interest charges on the national debt.

(d) Gross burden of the national debt may be off-set or even reduced in so far as the increase in the debt is accompanied by rising public expenditure which contributes to the real income of future generations i.e., productive public capital formation.
Modigliani pointed out that the method of financing government expenditure does not alter the size of the draft on current resources. But it may alter the nature of the private uses of resources which are displaced. He argues that debt finance will displace mainly investment, and tax finance mainly consumption.

### 2.5 Macro Economic Implications of Domestic Debt

Macro economic implications of domestic debt have been a subject of long standing controversy and two distinct phases can be identified. In the old tradition, domestic debts are created during wars or national emergencies and retired during peace time. In the recent
past, many industrial countries have experienced a substantial peace time accumulation of domestic debt. So there is a growing realisation that domestic debt accumulation is not necessarily transitory.

2.5.1 Traditional controversies

2.5.1.1 Ricardian Equivalence Theorem

Way back in 1817, Ricardo enunciated a theorem which has been called the *Ricardian Equivalence Theorem*. The theorem puts forth a proposition that domestic debt and a lump sum tax of equivalent amount exert identical effects on the individual. The theorem was derived under the conditions of

(a) perfect capital markets with no-borrowing constraints
(b) non distortionary taxes
(c) perfect certainty about future taxes and
(d) equal planning horizon for private and public sectors.

With these restrictive premises, the contention of the theorem is that for the individual, each of the two alternatives (ie, taxation and domestic debt) impose, a burden that in a present value sense is substantially the same. Buchanan (1968) clarified that “this Ricardian
equivalence does not suggest, however, that the objective pattern of cost payments remains the same over the two alternatives. Taxation and debt issue remain different, not similar, financing institutions —— for the simple reason that taxes require a transfer of resource services from the individual to the fisc during the initial period, whereas debt issue postpones such transfer until later periods.¹⁹

Leiderman and Blejer (1988)²⁰ provided a simple model to show the implications of relaxing some of the assumptions of Ricardian equivalence. In practice, existing taxes tend to be distortionary. These taxes can affect the private sector and economy wide allocations because of their induced wealth, redistribution and inter temporal substitution effects. The level and type of taxation have distribution effects that reflect differential incidence across individuals.

The nature, amount and timing of future increases in taxes are assumed to be known with certainty. This, however, does not happen in practice since the incidence of taxes across individuals is uncertain and so are the future increases in taxes. This can cause deviations from equivalence.
The assumption that, individuals act as if they will live forever (or that households and Government have the same planning horizons) is a necessary condition for this equivalence. But since there is an uncertainty amongst individuals about their life time, thus assuring no bequest motive, a tax cut will lead to a rise in perceived wealth and consumption of currently alive individuals. Thus with a tax cut, future tax liabilities can be shifted to later generations without affecting the welfare of the current generation. This leads to a violation of the equivalence theorem.

The traditional approach for testing this hypothesis with time series data was to regress private consumption on government budget as well as other relevant variables. The empirical evidence on this issue is inconclusive because of differences in sample periods, econometric techniques and methods of empirically measuring the different variables. Leiderman and Blejer have attempted to overcome these shortcomings by directly deriving the estimated relations from explicit intertemporal optimisation frameworks. From a number of studies, they found that if the assumptions of the Ricardian equivalence are violated, then there would exist deviations from this proposition and hence fiscal policies can have an impact on private consumption and aggregate demand.
In their attempt to revive the Ricardian Equivalence Theorem, Rational Expectation theorists have contended that domestic debt does not have any adverse wealth effect on private savings. They argued that when government accumulates large domestic debt in relation to GDP, "rational" households anticipate higher taxes in the future. Because of this expectation, their "permanent" income is reduced. So the impact of accumulated domestic debt falls on consumption rather than on savings, avoiding the dampening effect on the saving rate.

2.5.2 Recent Trends in the Study of Domestic Debt

2.5.2.1 Sustainability of Public Debt

The "sustainability" aspect of domestic debt is an important area where the real interest rate rises and the second-hand market is not where the real interest rate rises and the second-hand market is not.

The essence of this argument is that the interest payments arising out of domestic debt represent nothing more than transfer from tax-payers to bond holders and so long as both groups are members of the same polity, no macro economic cost is involved. On the basis of this proposition, domestic debt is often dismissed as of no macro economic consequence.

Domar (1944) pointed out, that if the rate of interest is higher than the growth rate of the economy, any primary deficit will lead eventually to an explosive rise in the debt-GDP ratio. Buchanan (1968) exposed the fallacious nature of this proposition, when he observed. "This conception of national debt contains a fundamental flaw in its failure to translate opportunity cost
or burden from aggregate components into something that is meaningful to individual members." According to him, "The core of the fallacy lies in the equating of the community as unit in some aggregated national accounting sense, with the individuals in the community in some political sense as participants, direct or indirect in collective decision making." So the belief that domestic debt is of no macro economic consequence is illusory.

2.5.2 Recent Trends in the Study of Domestic Debt

2.5.2.1 Sustainability of Public Debt

The "sustainability" aspect of domestic debt is an important area of discussion. It is actually related to economic 'stability' rather than 'sustainability'. This is evident from the fact that debt-financing of government deficits is deemed to be 'sustainable', when the resultant debt-GDP ratio is low and is considered explosive otherwise.

Domar (1944) pointed out, that if the rate of interest is higher than the growth rate of the economy, any primary deficit will lead eventually to an explosive rise in the debt-GDP ratio. Bispham (1987) and Mason (1987) derived similar results, based on intertemporal budget constraints. The budget constraint states that the
The present value of debt service must equal the value of debt outstanding. The intertemporal budget constraint gives the link between the current stock of public debt and the future requirements of debt service. It provides an analytical framework for projections of the debt-GDP ratio for an economy.

Dornbusch, et. al. (1985)26 pointed out two major kinds of disturbances that can lead to fiscal instability. The first is the emergence of a large, persistent deficit due to wars, populism etc. The second is a change in economic structure which changes the relative magnitudes of growth and real interest rate. The most relevant case is the one where the real interest rate rises and the trend output growth rate declines. Dornbusch, et. al. have analysed the data on Europe for 1984 and 1985. A rising real interest rate and a declining growth rate of output have been observed in most European countries, opening the prospect of fiscal trouble.

The question of the government budget constraint and government solvency has been considered by Buiter (1986)27. In his paper he points out that during peace-time conditions, no government would resort to “wholesale repudiation of domestically-held public debt”. However, such repudiation has not been uncommon after a war...
or a major political change. It happened in France in 1770 and Germany in 1923 and 1948 when capital levies were introduced in these countries. For Italy, such a levy was recommended by Basevi and Giavazzi in 1983.

Thus for most of the European countries of today, there does not seem to be any reason to suppose that the inter temporal budget constraint would not be met and that the budget deficits would become unsustainable.

2.5.3. Debt and Inflation

A theory of the relationship between debt and inflation arises from the work of the Minnesota School, especially Sargent and Wallace. Their argument rests on the ultimately inflationary effect of a shift from money to debt finance of a given deficit.

According to Buitet (1986) there are two distinct views of the debt-deficit-inflation nexus. According to the first view, there is an incentive for the government to decrease the real value of its outstanding stock of interest-bearing, nominally denominated debt through an unexpected burst of inflation. The second view is the one...
stated by Sargent and Wallace which emphasizes the long run inflationary consequences of a short or medium term switch from money or tax finance to debt financing of a given public spending programme.

There are several levels, according to Blinder and Slow (1973)\textsuperscript{30}, at which crowding out has been alleged to occur. The first and most obvious one is the view that when the government engages in productive activities which could be provided by the private sector, the scope for deficit financing is constrained by medium and long term inflation dangers. A country can avoid these dangers if it incurs a balance of payment deficit on current account but this will cause an external imbalance and a withdrawal of external finance, which could further result in accelerating inflation. So when the government runs excessive budget deficit, the choice is between inflation and a payment deficit.

Tanzi, et. al. (1987)\textsuperscript{29} in their paper showed the link between inflation and fiscal deficits. As the rate of inflation rises, the conventional definition measure of fiscal deficit may magnify the size of the fiscal adjustment that a country needs. So all inflation induced interest payments must be subtracted from the conventional deficit to get an operational measure of fiscal deficit. Both these measures have their shortcomings but together they provide more information.
2.5.4 The 'Crowding out' Debate

There are several levels, according to Blinder and Slow (1973)\textsuperscript{30}, at which crowding out has been alleged to occur. The first and most obvious one is the view that when the government engages in productive activities which could be provided by the private sector, then public spending would simply supplant private investment.

The second level of crowding out is an integral part of the Keynesian tradition. This states that when the government indulges in deficit financing, not by issuing money but by floating debt issues, then these compete with private debt instruments in financial markets. There is an upward pressure on the rates of interest which will reduce any private expenditures which are interest-elastic.

Buiter (1986) made a distinction between 'Keynesian crowding out' and 'Classical crowding out' and also between 'short run' and 'long run' crowding out. In the 'short run,' it is assumed that changes in outstanding stocks of domestic capital, government debt, high powered money etc. brought about by the flows (investment, government borrowing etc.) over the period under consideration are
very small relative to the stocks and can be ignored. Expectations (of future interest rates, exchange rates etc.) are also taken as given.

In Keynesian 'crowding out', we consider the horizontal shift of the aggregate demand schedule and the composition of that change in terms of changes in investment, consumption or the current account balance. A tax cut boosts private consumption and crowds out the current account surplus through an appreciation of the nominal and real exchange rate.

According to the classical economists, all modes of financing Government budget namely, taxation, debt financing and money creation crowds out an equal amount of resources available to the private sector, under conditions of full employment. According to this view, crowding out effect is not exclusively associated with debt financing.

2.5.5 Policy Options

Butter (1986) says that there are four ways through which governments can reduce the real value of their debt.

The option of reducing the real value of debt and debt service by inflation has to be examined. This option has been exercised by governments to meet their inter temporal budget constraint. According
to Dornbusch, et. al. (1988), the Keynes-Clark model of debt liquidation assumes that a deliberate inflation policy can succeed in reducing the real value of public debt. If the government can in one go increase price level in the economy, then as long as debt is denominated in nominal terms, this will reduce the real value of the debt as well as the interest payments on the debt. However, it is not possible to have an unanticipated overnight increase in the rate of inflation. Bond holders may demand an inflation premium to compensate for higher expected inflation.

Dornbusch, et. al. after analysing empirical data for the US concluded that in that country, there has been a marked switch from long term debt to short maturity debt. This shift has also occurred in Europe. In both France and Germany, major debt build-ups had ended in inflation. However, the reduction in debt in the UK at the end of the Napoleonic wars was accomplished not by inflation but by taxes.

Buiter (1986) says that there are four ways through which Governments can reduce the real value of their debt.
(a) At a given general price level and a given nominal price of bonds, they can run a budget surplus;

(b) They can attempt to reduce the real value of the outstanding stock of debt, at a given price level, by pursuing or announcing policies that cause a drop in bond prices;

(c) Even with a balanced budget and given nominal bond prices, an inflationary policy can reduce the real value of the stock of debt that exists;

(d) A Government can formally repudiate past all of its past debt.

Buiter advanced distributional and efficiency reasons for reducing the real value of government debt. Those who hold the debt and those who pay the taxes to service the debt are not the same people. According to the efficiency argument, public debt crowds out private saving and capital formation.

2.5.6 Empirical evidence on the issue of Public Debt

Some of the empirical literature on the issue of public debt is presented in this section. The American debt situation can be briefly examined with the help of two papers by Phelps (1987) and Penner
It has been pointed out that in the 1980's, there was considerable reduction in the US public savings leading to a huge increase in public debt. There was no offsetting increase in private savings. This situation offered some real benefits to the US, such as

(a) a reduction in price level;

(b) (Income) Tax cut increases the supply of labour;

(c) A tax cut by reducing the tax rate on interest income helps to hold up the after tax interest rate. This avoids the problems of inflation and disinflation to a certain extent;

(d) Tax incentives in 1981 played a major role in dampening the recession.

There are certain adverse effects also. One is the loss of potential national income resulting from the budgetary deficit. The other is the worth or shadow cost, of the customers lost to American firms in foreign markets resulting from the fiscal stimulus and the appreciation of the dollar. Phelps showed that the benefits outweighed the costs in the early 1980's, but warned that costs intensify and
benefits erode; so a gradual phasing out of the fiscal stance is indicated.

Penner (1987) in his paper has analysed the impact of rising US federal deficit on capital formation. With the steadily rising deficit in 1981 and 1982, many American economists concluded that this would result in high real interest rates and low investment. Though high real interest rates emerged, this has also attracted massive inflows of international capital to the US. This has stopped the rise in interest rates. So the argument that rising US budget deficits crowded out US capital formation was proved wrong. However as the dollar appreciated with capital inflows, the export and import-competing sectors of the economy were depressed. Crowding out occurred but it afflicted the trading sectors of the economy rather than capital formation.

Another important strand in recent fiscal literature relates to the impact of domestic debt on private savings. Boskin (1987) and others provide detailed analysis of the issue in the context of the US economy, where the saving rate has declined substantially in the recent years. Of the four avenues by which national fiscal policies can affect private savings, Boskin finds that the growth of implicit and explicit
domestic debt may be the major cause of the decline in the US saving rate.

Besides the potential impact of domestic debt on the saving rate, several specific issues are also being addressed. In the Italian context, the impact of domestic debt on financial markets has been explored by Pagano (1988) and the impact on households demand for monetary assets has been analysed by Bollino and Rossi (1988). The relationship between debt accumulation and capital controls has been investigated by Giovannini (1988).

Modigliani and Jappelli (1987) studied the determinants of consumption and saving and their effects on fiscal policy using Italian data for more than a century. This study indicated that the long swings in the saving ratio reflect primarily two forces - fiscal policies via expenditure and deficits and variations in the growth rate of economy, which manifest themselves in variations of the wealth to income ratio. The authors found that contrary to popular belief, the major cause of the decline in saving ratio was not the large and highly visible deficit. The decline in savings is related to the sharp drop in the growth of the economy.
2.6 Review of Indian Literature on Public Debt

In India, literature on public debt mainly focuses on the problems of mounting public debt of the Central Government. The indebtedness of the State Governments was treated mostly as part of the analysis of Centre-State financial relations.

One of the earliest studies of Indian public debt by Sreekantaradhya (1972) examined the historical reasons for the growth of public debt in India. A similar study of N.R. Rao (1972) during the same period analysed the constitutional arrangements of public borrowing in federal States and constitutional evaluation of public borrowings in India. A more rigorous study of the problem of public debt by Ghuge (1977) had shown that national debt in India had grown enormously since 1956, and became a major factor influencing monetary and fiscal policy in the country.

Kiran Barman (1978) analysed the growing problem of public debt both at the Central and State levels since independence. But the most important work analysing financial management at all levels of government was done by Thavaraj (1978). He outlined the fiscal operations of governments in a federation like India. Mishra (1985)
dealt in detail with the phenomenal growth of Indian public debt and
highlighted the virtues of debt as an instrument of resource
mobilization for planned development. He argued that prudent
management of debt can minimize the cost of debt-servicing. By mid-
eighties, literature on public debt expressed serious concern about the
growing volume of debt and debt servicing in India.

Seshan (1987) was the first to draw pointed attention to the
possibility of domestic debt in India reaching an unacceptable high
level in the none too distant future. Subsequently, the Report of the
Comptroller General of India (1988) also warned against the
alarming growth in domestic debt. Based on simple trend analysis
Rakshit (1989) questioned the methodological premises of these
predictions. Ghosh (1988) argued that rapid increase in public debt and the
burden of interest charges have 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.

The study by Rangarajan, et. al. (1989) can be described as the
most serious study of Indian public debt in recent times. It developed
a sound analytical framework to explore the dynamic nexus between government deficits and different modes of financing them. It examined the macro economic implications of domestic debt accumulation and the danger of resorting to RBI financing leading to a vicious circle of deficit and inflation.

Lakdawala (1990) analysed the various aspects of Indian Public debt. He pointed out the dangers arising from the large size of public debt in India. He warned that the present debt situation, if allowed to persist, will throw a grave burden on the treasury and an intolerable monetary deficit.

Chelliah (1993) explained the strength and limitations of the fiscal deficit concept of debt in the context of macro-economic stabilization in India. His analysis of the growth of public debt made illustrative projections of the public debt profile of India upto 2003 AD. Gulati (1993) while commenting on the sustainability of public debt argued for better allocation of governmental expenditures to facilitate the growth of national income.

As indicated earlier, the resource gap of the State Governments in India, measured in terms of their public debt, has not received
adequate attention in the discussion of fiscal federalism in India. Venkataraman (1968)\textsuperscript{52} who presented a detailed analysis of the fiscal operations of the Union and State Governments in India, noticed that during the first three five year plans, the volume of debt of the State Governments had increased enormously and servicing of it had become a matter of great concern.

Kher (1967)\textsuperscript{53} presented an analysis of the finances of the Mysore State in which he pointed out the resource gap experienced by the State leading to increased public debt, on the eve of the Third Five Year Plan. In his analysis of Orissa State finance, Patnaik (1970)\textsuperscript{54} warned that the rapid growth of State public debt imposed a heavy strain on the revenue position for meeting the interest and repayment liabilities.

Porwal (1971)\textsuperscript{55} in his study of Rajasthan State finance showed that the increase in annual income of the State could not cope with the increase in public debt and interest charges. He analysed the debt position of the State from 1949-50 to 1968-69. During the same period Nanjundappa (1974)\textsuperscript{56} analysed the impact of Central loans on State government finance which formed 74.1 per cent of the States' total debt. In his opinion, if debt is accompanied by a rise in the States'
income and if the debt-revenue and debt-service ratios are within manageable limits, it need not cause anxiety.

Bhargava (1969)\(^5\) in his analysis of Uttar Pradesh State finances noted that public debt of the State increased by more than twenty-one times during the twenty year period between 1947-48 and 1967-68. The percentage share of Central loans in the total debt of the State came up to 79.9 percent at the end of 1967-68. This was at the expense of permanent debt and unfunded debt components of the State debt. He suggested that the loan operations of the Union and State Governments should be centralized to eliminate the disadvantages of small scale borrowings. Bajaj and Aggarwal (1992)\(^5\) also examined the financial position of Uttar Pradesh during the period between 1965 and 1990. An examination of the various aspects of the State’s budgetary operations revealed that the public debt of the State has remained low. This is attributed to the low per capita plan assistance and lack of access to market borrowing of the State government.

Thimmaiah (1977)\(^5\) pointed out that the Central loans to the States have given rise to a sort of financial imperialism of the Central Government in India. The market borrowings of State Governments have not been distributed or allocated consistently on any objective
principle. He suggested that solutions to the mounting burden of Union loans on the States should aim at reducing both financial and economic burden of Union loans.

The study by the Birla Institute of Scientific Research (1979) points to a kind of vicious circle that has developed in which the problem of growing State indebtedness to the Centre is feeding upon itself. The study points out that the debt liabilities of the States are not supported by corresponding income-yielding assets. Similarly Central transfers to the States are inadequate and the loan-grant composition of Central loans faulty.

In the 1980's, there was renewed interest in the study of State finances in India. It was during this period that several noteworthy studies of multilevel finances came up. Some of them were case studies of Indian States. OmPrakash (1983) analysed the finances of Punjab State and pointed out that the indebtedness of the State was within manageable limits compared to its income level.

Christine Wallich (1982) in a study of State finances in India for the World Bank, detailed the mechanism of transfer of funds from the Centre to the States under the auspices of the Planning Commission.
and the Finance Commission, in general, and the impact of World Bank lending in particular. Bhuyan (1984) made an analysis of Assam State finances. He showed that the State had been using its debt raised resources on less productive areas. He pointed out that public debt policy must be accompanied by a suitable monetary policy. State Governments have very little to contribute on their own in this respect. Although State governments in India are increasingly getting into debt traps, the problem is much more acute for Kerala. George (1993) observed that debt servicing payments which take away nearly two-thirds of the fresh Central loans in the case of All States, take away as much as 87 percent of fresh loans in the case of Kerala. The outstanding debt of Kerala in relation to its capacity to service the debt costs as indicated by the State domestic product has been one of the highest among States in India. By 1987-88 the debt-SDP ratio of Kerala reached 37.7 percent. It appears that the State of Kerala is caught in a vicious circle of deficits, debt servicing payments and still more high deficits. The problem of access of a middle income State like Tamilnadu. In his opinion, Tamilnadu is one of the relatively rich States. George (1988) examined the indebtedness of the State Governments to show that the mounting debt servicing payments have progressively reduced...
the net Central loans to the States into a trickle. In the analysis of
Central loans, between Second and Seventh FYP periods, he noted that
most of the States in India have fallen to 'debt traps', a situation
wherein fresh loans are necessary to service old loans. During the
three decades studied, debt servicing accounted for about 11 per cent
of the States' combined revenue and capital expenditure. He pointed
out that high interest rates and short maturity of Central loans have
contributed to the growing debt burden of State Governments. The
Centre was borrowing long from the market and lending short to the
States. The study also highlights the need for debt relief to the States.

Govinda Rao (1992)\(^66\) emphasised the urgent need for State level
budgetary reforms. He traced the major issue at the State level as
continuous outpacing of the growth of revenue expenditures over that
of revenue, and the growth of outstanding debt of State Governments.
S.Guhan (1992)\(^67\) reviewed Tamilnadu State finances during the period
1960-90 with particular emphasis on developments in the 1980's. It
highlighted the problem of access of Central transfers of a middle
income State like Tamilnadu. In his opinion, Tamilnadu is one of the
relatively less indebted States due to the availability of current account
surpluses and the lack of major capital projects.
Nizar Jetha (1992) reviewed the structure and trends of Gujarat's finances during the period between 1973 and 1987. The study pointed out that the emergence of current account deficit in the State was caused by the rapid growth of expenditure. He suggested that beneficiary targeting and greater cost effectiveness are required to sustain the high and growing level of State expenditure. Pattnaik, et al. (1994) designed a new measure of State public debt in terms of Basic Resource Gap. The study revealed that the fiscal dependency and stress of the States during the 80's and 90's did not show any perceptible decline. It suggested the need for budgetary reforms by the State Governments in India.

The problem of States' indebtedness with particular reference to the debt servicing problem of Central loans was examined by almost all Finance Commissions. The Second Finance Commission (Report 1956) was the first to be asked to look into the problem of State debt, in view of the rising Central loans to the States. The Commission attempted to rationalise the interest rate structure of Central loans as it was opposed to the policy of giving loans interest free. The Third Finance Commission (Report 1961) observed that interest liabilities on Central loans take away a substantial portion of the States' revenue. The Fourth Finance Commission (Report 1965) recommended an
assessment of the system of intergovernmental debt operation in India for taking measures to lessen the problem of State debt. The problem of unauthorised overdraft of the States from the RBI was referred to the Fifth Finance Commission. The Sixth, Seventh and Eighth Finance Commissions went in for massive debt rescheduling as the States were facing huge non-plan capital gaps during this period. Even after debt relief, all the deficit States continued to be deficit States

The Ninth Finance Commission reviewed the debt position of the States and strongly opposed the use of borrowed funds for revenue expenditure. The Tenth Finance Commission suggested two methods to reduce the burden of State debt. The first one was the disinvestment of the State public sector units to repay Central loans. Secondly, they suggested that the Centre rewards those States which take steps to improve their revenue account.

2.7 Studies on Kerala Finances

Absence of analytically sound quantitative studies on States' budgetary behaviour and the effects of different types of intergovernmental transfers are an important shortcomings of the literature on Indian fiscal federalism. The study on the various aspects of the fiscal crisis of Kerala by George (1993) is a serious attempt in
The study covers the 16 year period ended in 1989-90. The study traces the origin of Kerala’s fiscal crisis and assesses its dimensions. The resource mobilization efforts of Kerala, in the context of the constraints posed by the Kerala model of development, are discussed. Federal fiscal transfers of all types are examined to see the roots of the State’s budgetary crisis. The level and pattern of Kerala’s public expenditure and its implications for the State’s fiscal positions are analysed in detail. The study reveals that the debt servicing payments of Kerala have steadily increased compared to All States. This high share of debt servicing reduced the capital available for investment and increased the revenue expenditure of the State government.

Aiyer and Kurup (1992) suggested that the State’s capacity to generate budgetary resources for economic development has been adversely affected by the pattern of expenditure growth in the State. Non-developmental expenditure has increased faster than in other States. By 1991-92, interest charges accounted for 13.6 percent of total revenue expenditure of Kerala. The share of debt servicing in non-plan expenditure rose to 26.6 percent during the Seventh Plan period. The repayment obligation during the same period constituted as much as 95 percent of its non-plan capital outlay on social services have resulted in high current expenditure.
outlay. The major share of liabilities has been the loans from Central Government. The total outstanding debt of Kerala at the end of 1989-90 represented 3.3 percent of State domestic product. They noted that Kerala's situation of having to borrow in order to square its revenue account is not unique.

Lizy (1989) made a study on Kerala finances. It was a trend and evaluative type study. Broadly, it studied the State's economic development vis-à-vis other States, its resources and expenditure, level of Central transfers and State's debt position. The study noticed that the debt burden of States has been increasing and Central loans formed about 77 percent of total indebtedness of State government. It also revealed that the relative importance of Central loans decreased over the plan period.

Sen and Rao (1970) as members of the Resource Commission appointed by the Government of Kerala to study certain aspects of State finances pointed out that the fiscal problem of Kerala has been aggravated by certain peculiar factors. The study revealed that a large proportion of borrowed funds is used up in financing current expenditure leaving little for physical capital formation. In their opinion, the increasing interest burden and successively larger plan outlay on social services have resulted in high current expenditure.
References:


22. Ibid. P-63.


