CHAPTER III
CONCEPTUAL FRAME WORK

This chapter is intended primarily to provide a conceptual frame work of the study. Moreover, the important terms and concepts used in the thesis have also been explained here under.

The ‘Finance Accounts’ published by the Comptroller and Auditor General of India is the annual financial statement of the State Government. The accounts of the State Government are presented in three heads viz, Part I-Consolidated Fund, Part II-Contingency Fund and Part III- Public Accounts.

The present study seeks to analyze the data relating to public debt of the state of Kerala mentioned in part I and III of the Finance Accounts. The important terms and concepts used throughout the study are defined as follows;

Consolidated Fund

The Consolidated Fund includes Revenue Account, Capital Account and Debt Head. The Revenue Account deals with the proceeds of taxation and other revenue receipts, revenue expenditure and the final results of which is taken as the surplus or deficit of the years revenue account. The Capital Account deals with capital receipts and capital expenditure usually met from borrowed funds. The Debt head comprises the debts of the state governments (public debt) which include Internal Debt, Loans and Advances from the Central Government and appropriation to contingency fund.
Public Account

Public Account include the transactions relating to the debt other than those included in the Consolidated Fund. Deposits, Advances, Remittances and Suspense shall be recorded. The transactions under Debt, Deposit and Advances in this part are those in respect of which Government incurs a liability to repay the money received or has a claim to recover the amounts paid together with the repayments of the former and the recoveries of the latter. Thus, Public Account would include State Provident Funds, Small Savings, Insurance and Pension funds, Trusts & Endowments, Sinking Funds, Reserve Funds and Deposit and Advances in respect of which the Government incurs liability to repay the money received in the form of deposits.

Terms Defined

1. Public Debt

Public debt includes open market borrowings, borrowing from banks and financial institutions, Special Securities issued to the National Small Savings Fund of the Central Government, Bonds and Debentures issued by the Government, and Loans from the Central government and other interest bearing obligations of the Government. Thus Public Debt includes Internal Debt, Loans and Advances from the Central Government and Small Savings and Provident Funds.

State’s debt consists of all liabilities that require payment of interest and principal by the State Government at some future date. In this study, the terms ‘debt’ and ‘liability’ have been used interchangeably. Debt is defined to include Internal Debt, loans and
Advances from the Central Government and all Public Account liabilities such as Provident Funds, Reserve Funds and Deposits, etc.

2. **Internal Debt**


   Internal Debt normally consists of:

   1) Market Loans floated by the Government,

   2) Ways & Means Advances from the RBI,

   3) Special Securities issued to National Small Saving Fund of Central Government and

   4) Other Internal Debts.

3. **Market Loan**

   Market Loan is the loan raised by the State Government for a specific period to meet the expenditure for developmental activities by issuing bonds and securities in the open market.

4. **Ways and means Advances from the RBI**

   Ways and means Advances from the RBI represents the short term financial advances to the state government to make up the mismatch between expenditure and receipts of any given period of a financial year.
CHART SHOWING THE STRUCTURE OF PUBLIC DEBT

GOVERNMENT ACCOUNT

Part 1
Consolidated Fund

Receipt Head Revenue Account
& Expenditure Head Revenue Account

Part II
Contingency Fund

Receipt Head Capital Account, Expenditure Head Capital Account
Public Debt, Loans and advances etc.

Part III
Public Account

Debt (other than those included in part I), Deposits, Advances and Remittances

Public Debt

Internal Debt

Market Loan

Small Saving Fund of Central Govt.

Ways and Means Advances from RBI

Other Internal Debt

Loans and Advances From Central Government

State Plan Loans

Loans for Centrally Sponsored Plan Schemes

Loans for Central Plan Scheme

Non Plan Loans

Pre 1979-80/1984-85 Loans

Small Savings and Provident Fund.

Small Saving Funds

State Provident Fund

Trust and Endowments

Insurance and Pension Fund
Special securities issued to National Small Savings Fund of Central Government (NSSFCG)

National Small Savings Fund of Central Government is a special scheme providing an autonomous source of finance for the State Governments. It includes various small savings schemes like the Post Office Savings Account, Senior Citizens Savings Scheme, National Savings Certificate, Kisan Vikas Patra and Public Provident Fund. The loans have a maturity of 25 years with an initial moratorium of five years in the repayment of principal. The special securities currently carry a rate of interest of 9.5 per cent, as fixed by the Centre, resulting in a spread of around 1.5 per cent for the Centre.

Loans from the Central Government to the State Governments against small saving collections are major source of plan finance for the states. National Small Saving Fund was established with effect from 1-4-1999 and is maintained in the Public Account of India.

5. Other Internal Debt
The Other Internal Debt includes loans taken by the Government from Life Insurance Corporation of India (LIC), General Insurance Corporation of India (GIC), National Bank for Agriculture and Rural Development (NABARD), National Co-operative Development Corporation (NCDC), Loans from Other Institutions, Compensation and other bonds, etc.

6. Loans and Advances from the Central Government
The Loans and Advances given by the Central Government to the State Government for different plan and non plan purposes, from time to time.
Loans and Advances from the Central Government normally consist of:

1) Loans for States /Union territory plan schemes

2) Non-Plan loans

3) Loans for Central Plan Schemes

4) Loans for Centrally sponsored plan schemes and

5) Pre 1979-80/ 1984-85 loans

7. Non-Plan Loans

The non-plan loans are meant to help the states to fill the gap in resources, for modernizing police force, purchase of fertilizers, for house building advances to all India service officers and national loan scholarship schemes and so on.

8. Loans for State/Union territory Plan Schemes

The plan loans are meant to help the states in providing relief against natural calamities like floods, droughts, epidemics etc., externally aided projects, roads and bridges, national social assistance programme, etc.

9. Loans for Central Plan Schemes

Financial assistance in the form of loans and grants provided by the Central Government to the state government are to carry out the central plan projects.

10. Loans for Centrally Sponsored Plan Schemes

Financial assistance in the form of loans and grants provided by the Central Government to the state government are to carry out the centrally sponsored plan projects.
12. Loans from Small Savings and Provident Funds

Debt liabilities on Small Savings and Provident Fund arise from the deposits received in the Savings Accounts in the Treasuries, the remittances retained in the State Provident Fund, money in Insurance and Pension Funds and in Trusts and Endowments, in respect of which the government incurs liability to repay the money received in the form of deposits. Small Savings and Provident Fund (SSPF) includes:

1) Small Savings Fund

2) State Provided Fund

3) Trust and Endowments and

4) Insurance and Pension Funds.

13. Small Saving Fund

The Small Saving Fund includes State Saving Bank Deposits, Fixed and Time Deposits, etc, which is the major source of fund that contributes the total Small Savings and Provident Fund.

14. State Provident Fund

The State Provident Fund is constituted by a variety of funds including Civil and Other Provident Funds. The Civil head includes General Provident Funds, Contributory Provident Funds and All India Services Provident Fund. The category Other Provident Fund includes Contributory Provident Pension Fund and Other Miscellaneous Provident Funds.
15. Insurance and Pension Fund

The Insurance and Pension Funds includes Family Pension Funds, State Government Insurance Funds, Other Insurance and Pension Funds and Kerala State Government Employees Group Insurance Funds.

16. Revenue Deficit

Revenue deficit refers to the excess of total revenue expenditure over total revenue receipts.

Revenue Deficit = Total Revenue Expenditure - Total Revenue Receipts

17. Fiscal Deficit

Fiscal Deficit is the excess of all expenditure, revenue and capital, plus loans net of repayments (net lending) over total revenue receipts plus non-debt capital receipts. Fiscal deficit indicates the extent of government borrowings from all sources necessary to balance the budget.

Fiscal Deficit = (Total Expenditure + Net Lending) – (Revenue Receipts + Recoveries of loan + Other Receipts)

18. Primary Deficit

Primary Deficit is the extent to which current fiscal action affects the indebtedness of the government.

Primary Deficit = Fiscal Deficit – Interest Payments
19. Revenue Receipts

All those receipts of the government which are non redeemable may be termed as revenue receipts. These receipts are divided under two heads: Tax Revenues and Non Tax Revenues

20. Revenue Expenditure

Revenue Expenditure includes all current expenditures on administration and public commercial undertakings. Revenue expenditure does not result in creation of assets.

21. Capital Expenditure

Capital Expenditure comprises all capital transactions including capital transactions of public commercial undertakings. It includes expenditure on acquisition of assets like land and building, machinery, investments in shares etc. and loans and advances. The benefits of capital expenditure extend over a period of time.

22. Net Total Debt

Net total debt is the difference between total debt raised during a year and the total debt discharged during the same year.

23. Net Internal Debt

Net Internal Debt is the difference between total Internal Debt raised during a year and the total Internal Debt discharged during the same year.
24. **Net Loans and Advances from the Central Government**

Net Loans and Advances from the Central Government is the difference between total Loans and Advances from the Central Government raised during a year and the total Loans and Advances from the Central Government discharged during the same year.

25. **Net Small Saving and Provident Fund**

Net Small Saving and Provident Fund is the difference between total Small Saving and Provident Fund raised during a year and the total Small Saving and Provident Fund discharged during the same year.

26. **Gross Retention of Debt**

Gross Retention of debt is the difference between the debt mobilized and debt discharged during a period.

\[
\text{Gross Retention of Debt} = \text{Additions of Debt} - \text{Discharge of Debt}
\]

27. **Net Retention of Debt**

Net retention of debt is the residual part of the debt mobilized during a period after discharging the debt and interest during the same period.

\[
\text{Net Retention of Debt} = \text{Gross Retention of Debt} - \text{Interest Payment}
\]

28. **Compound Annual Growth Rate (CAGR)**

CAGR is an average growth rate over a period of several years. It is geometric average of annual growth rates. The compound annual growth rate is calculated by taking the \( n \)-th root of the total percentage growth rate, where ‘\( n \)’ is the number of years in the period being considered. This can be written as follows:
**Average Annual Growth Rate (AAGR)**

Just as the name says, it is the average growth rate. The average increase in the value of an individual investment or portfolio over the period of a year. It is calculated by taking the arithmetic mean of the growth rate over two annual periods.

\[
\text{CAGR} = \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\frac{1}{\text{# of years}}} - 1
\]

**30. Polynomial Trend Graph**

A polynomial trend line is a curved line that is useful to project trend values when data has wide fluctuations. The order of the polynomial trend is based on the number of fluctuations in the data or by how many ups and downs appear in the data. Since public debt for the last 27 years have been taken for analysis, the corresponding data show considerable fluctuations over the period. Hence accurate prediction of future trend of the public debt will be possible with the help of polynomial trend values. Since the data show heavy oscillations, Second, Third, Fourth and Fifth Order Polynomial Trend Lines have been used in appropriate places to fit the trend curves for projecting the relevant values. (Polynomial trend equations are depicted on respective trend lines in graphs)

**Approach to the Study**

The analytical part of the study has been divided into four sections. Section A sets forth the analysis of the first objective ie; To study the growth pattern and trend of change in the public borrowings of the Government of Kerala. Section B deals with the second objective ie; to analyse the variables influencing the growth of public borrowings in Kerala. Section C represents the third objective ie; to analyse the cost of debt vis- a-vis
public borrowings and Section D consists of the fourth objective ie; to analyse the mobilization and redemption of various components of Public Borrowings.

Section A – Analysis of Growth Pattern and Trend of change in the Public Borrowings of the Government of Kerala.

The following analysis is made in order to study the growth pattern and trend of change in the Public borrowings of the Government of Kerala.

The ratio of Revenue Deficit, Gross Fiscal Deficit, and Primary Deficit to Gross State Domestic Product is calculated in order to evaluate the overall financial health of the State Government. In the table presentations, the composition of different components of debt, major component-wise and sub component-wise, as a proportion of the totals is analysed to realize the objective. To supplement the analysis, Compound Annual Growth Rate (CAGR), Polynomial trend graphs, Average Annual Growth Rate (AAGR) and percentages are used. Moreover the analysis has also been extended to bring out the AAGR of each debt component in different Five Year Plan Periods. Wherever possible attempt has also been made to high light the present trend along with the future predicted values of each individual debt component.

Section B - Analysis of the Variables Influencing the Growth of Public Borrowings

The prominent factors influencing public debt analyzed in this section include:

1) Revenue Receipts-
   (a) States Own Tax Revenue, (b) States Own Non Tax Revenue, (c) Share of Central Tax and (d) Grants-in-Aid

2) Revenue Expenditure-
   (a) Interest, (b) Salary, (c) Pension and (d) Other Revenue Expenditure.
3) Capital Expenditure

To analyze the data for fulfilling the second objective, the following procedure was adopted. The proportion of each item of revenue in total revenue receipts and their CAGR along with the CAGR of total revenue receipts is compared and analysed in detail. In addition the influence of the revenue components on debt is analysed, comparing their respective annual Growth Rates.

To identify the most influencing factor, correlation and regression analysis were also made. To further substantiate the analysis, trend graphs have been extensively used. A similar procedure of analysis was adopted in measuring the influence of revenue expenditure components on public debt. For the purpose of analysis, revenue expenditure has been classified in to four broad categories covering interest payment, salary, pension and other revenue expenditure.

Section C – Analysis of the Cost of Debt vis-à-vis Public Borrowings

The cost of different components of debt (interest) along with total cost of debt and their respective growth rates compared and analyzed are the major focus of this section. This is done covering both major component-wise and subcomponent-wise interest payments of the public debt of the Government of Kerala during the period under study.

A part of the section is dedicated to analyze the ratio of interest payments on Net Total Debt (Debt Addition minus Debt Discharge) of total debts and its different components. In addition, the percentage increase of interest payment on each sub
component of debt is compared with the percentage increase of Revenue Expenditure and Revenue Receipts along with their CAGR.

The share of interest payment of each debt components in total interest payment, total Revenue Expenditure and Total Revenue Receipts is also analyzed to get a clear picture of the interest burden of the state.

Further the average interest rate of various categories of debt and their percentage growth has also been analyzed. Finally the intensity of interest burden of the state, on a comparison with Revenue Receipts, Revenue Expenditure, Own Tax Revenue, Non Tax Revenue and GSDP has been made as well.

**Section D – Analysis of the Mobilization and Redemption of various components of Public Borrowings.**

This section sets forth the analysis of the mobilization and discharge of public borrowings with a view to study the nature of public debt in Kerala. It studies as to how total additions are made up as well as the additions in individual debt components. Similarly it seeks to analyze the frequency of discharge of various debt components so as to know the net retention on each component available for productive capital expenditure. The table presentations are supplemented by statistical tools like Mean, Standard Deviation and Coefficient of Variation to substantiate the matter.