Chapter - I :

INTRODUCTION

This chapter gives an account of (1) The theories of Public Expenditure (2) Scope of the Study (3) Objectives of the Study (4) Background of the Study (5) Time Period and Area of the Study (6) Basic Concepts (7) Methodology (8) Nature and Availability of Data and (9) Chapter Scheme.

1. The Theories of Public Expenditure :

The study of public expenditures gains importance because "Public Expenditures are a fascinating sector of a government, a powerful instrument for social and economic policy for a richer life".[1] But, until recently it was not given proper attention by the public as well as professional economists. Richard M. Bird points out that most of the public discussion on government expenditure were concerned "either with the general denunciations of 'high' government expenditure and 'big government' or else

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1 W. Dress Jr. : "Efficiency in Government Spending". Public Finance, Vol.XXII, Nos.1-2, 1967, p.47.

of relatively picayune criticism of this or "wasteful" government expenditure".[2] The neglect of the study of public expenditure in the previous century was due to the pre-occupation of the Economists with "the intellectual challenges of developing the theory of consumer behaviour, the analysis of prices and markets and the theory of macro-economics". Another reason for the traditional neglect of the analysis of government expenditure in public finance was of the feeling that the level and structure of expenditure were determined politically and were thus beyond the economists' proper orbit of study.[3] But now because of its sheer importance in the lives of all of us the study of public expenditure has gained the attention of the analytical political economists who are concerned with the systematic analysis of both economic and political aspects of non-market decisions.

During the last century attention was devoted to public revenue. In the Words of Bastable, "No one has yet propounded a system of arrangements and a body of rules applicable to public expenditure as those established for public revenue and particularly taxation."[4]

2 Richard M. Bird.: The Growth of Government Spending in Canada. (Canadian Tax Foundation, Toronto) 1970, p.3.

3 Ibid, pp.3-4.

4 C.F. Bastable. Public Finance. (Macmillan, New York), 1928, p.146.

The social and political ideologies were also reasons for the neglect of public expenditure. Adam Smith advocated limited government. He wrote that, "According to the system of national liberty, the sovereign has only three duties to attend to; three duties of great importance; indeed, but plain and intelligible to common understandings; first, the duty of protecting society from the violance and invasion of other independent societies, secondly, the duty of protecting, as far as possible every member of society from the injustice or oppression of every other member of it, or the duty of establishing an exact administration of justice; and thirdly, the duty of erecting and maintaining certain public works, and certain public institutions which it can never be for the interest of any individual or small number of individuals to erect and maintain; because the profit could never pay the expense to any individual or small number of individuals though it may frequently do much more than repay it to a great society."[5] David Ricardo considered public expenditure as a waste and did not feel worthy of any special discussion on it."[6] The same view runs through

5 Adam Smith: An Inquiry into the Nature and Causes of Wealth of Nations. (Cannan Ed. Modern Library) 1937, Book IV,p.651.

6 David Ricardo. Principles of Political Economy (E.P.Dalton & Co. Inc., New York), 1943, p.159.

the writings of some other British economists also. The main task of public finance to many nineteenth century English economists was simply "to make the best of a bad lot and to allocate the burden of taxes as fairly as possible among the members of the afflicted community."[7] Even the early 20th century writers Hugh Dalton and A.C. Pigou though aware of the problems of determining the range and composition of public expenditure concentrated on the various "Sacrifice theories".[8]

However, during the same period the continental writers Bantaleoni, Mazzola, Sax, Wiesea, Wicksel and Lindal analysed the inter-dependence between the revenue and expenditure sides of government activity and the way in which the activities of government satisfied social wants.[9] Even then public expenditure remained unnoticed. Subsequently the works of Richard A. Musgrave[10] and Howard R. Bowen[11] appeared.

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7. Richard M. Bird. op.cit., p.4.

8. Hugh Dalton: Principles of Public Finance. (Routledge and Kiganpaul Ltd., London), 1954.
A.C.Pigou. A Study of Public Finance. (Macmillan & Co.Ltd. London), 1947.

9 See Richard A. Musgrave and Alan T.Peacock, ed. Classics in the Theory of Public Finance (Macmillan & Co.Ltd., London), 1958.

10 Richard A. Musgrave, "The Voluntary Exchange Theory of Public Economy". Quarterly Journal of Economics, (Feb.1938), pp.213-237.

11 Howard R. Bowen: Towards Social Economy. (Rinehart & Co.Inc., New York), 1948.

But the real awakening came after the appearance of the two articles of P.A. Samuelson[12] and Richard A. Musgrave's[13] book. The articles of Samuelson revived the concept of a pure "public good" as something which people as individuals desire but which cannot be provided through the normal workings of the market because the way in which the services are provided ensures that they will be equally consumed by all citizens. That is no one can be excluded from enjoying the service provided, whether, he pays for it or not. Samuelson is credited with developing a set of conditions necessary to achieve Pareto-optimality in the allocation of resources between "pure public goods" and "private goods". He has demonstrated that if individual preferences for public goods are known and if there exists a "social welfare function" which reflects the ethical judgement of society, a unique output mix of public goods and private goods can be determined which satisfies the criteria of a Pareto optimality.[14] Since the publication

12 Paul A. Samuelson: "The Pure Theory of Public Expenditure" Review of Economics and Statistics, XXI VI (November 1954), pp. 387-389; and "Diagrammatic Exposition of a Theory of Public Expenditure". Review of Economics and Statistics, XXXVII (November 1955), pp.350-356.

13 Richard A. Musgrave: The Theory of Public Finance: A Study in Public Economy. (McGraw-Hill, New York), 1959.

14 Paul A. Samuelson: "The Pure Theory of Public Expenditure". Review of Economics and Statistics, Vol.XXVI No. (November, 1954), pp.387-389.

of Samuelson's articles and Musgrave's book a good volume of literature on the theory of public goods came into existence.[15]

Richard M. Bird maintains that the modern theory of public goods is basically concerned with three separate problems: (i) the requirements for the optimal provision of public good; (ii) the demonstration that the private market will fail to provide the optimal amounts of such goods; and (iii) the problem whether a political mechanism which will perform this task properly can be devised. Therefore Public goods theory is essentially normative in nature. The normative theory of public expenditure is concerned primarily with establishing the requirements for achieving the optimal provision of certain goods and services.[16] As such the normative theory of public expenditure falls in the realms of welfare Economics. Basically it is not concerned with explaining What governments in fact do but rather with What government should do under certain assumptions, if they want

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15 See particularly J.G. Head : "Public Goods and Public Policy", Public Finance, No.3, 1962, pp.197-219; James A. Buchanan: The Demand and Supply of Public Goods (Rand McNally, Chicago), 1967; Carl S.Shoup and John Head: "Public Goods, Private Goods and Ambigous Goods", Economic Journal, September, 1969; H.Shibata: "A Bargaining Model of Pure Theory of Public Expenditure", Journal of Political Economy (January, 1971).

16. Richard M. Bird, op.cit., p.5.

to allocate economic resources efficiently so as to make it possible to maximize Social Welfare. It is not easy to make-out how far the normative theory has influenced the policy decisions. In fact there must be some connection between what theoretical welfare economists think government should do in order to make us all as happy as possible and what we in fact observe governments doing every day in the world around us. 'Inpractice', as Richard M. Bird puts it, "one would be hard pressed to argue that the literature on the new normative theory of public goods has as yet added much to our understanding of government behaviour in real world."[17]

Further he maintains that "the help that can be drawn from the theory of public goods in an attempt to understand government behaviour is not much".[18] Therefore one has to turn to a different body of literature, the positive theory of public expenditure.

The'positive theory' or 'behavioural theory' of public expenditure is "that body of economic and political analysis which attempts to understand and explain the observed pattern and level of government expenditures and the changes in those expenditures over time".[19] Therefore the positive theory of public expenditure comprises the study of following subjects :

17 Ibid, p.6.
18 Ibid, p.16.
19 Ibid, p.17.

(1) the determinants of the volume of public expenditures;

(2) the determinants of the composition of public expenditures - What goods and services are financed through the public sector and how the "mix" of expenditures changes over time; and

(3) such behavioural properties of public expenditures as centralization and stability.

A positive theory of government expenditures was formulated explicitly first in the nineteenth century by Adolph Wagner[20] A number of studies have been done testing the validity of Wagner's law. The recent such studies are by Solomon Falncant,[21] R.A. Musrgave and J.M. Gulbertson,[22] Francis H. Bator,[23] T.E. Boreherding[24] for United States, B.U. Ratch Ford[25] for Australia, Peacock and Wiseman[26] for the United Kingdom, Suphan Andic and Jindrich Veverka[27] for

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20 See Richard M. Musgrave and Allan T.Peacock, op.cit., p.8.

21. Solomon Fabricant: The Trend of Government Activity in United States since 1900. (National Bureau of Economic Research, New York),1952.

22. R.A. Musgrave and J.M. Gulbertson: "The Growth of Public Expenditures in the United States, 1890-1948", National Tax Journal, June 1953, pp.197-215.

23 Francis M. Bator: "The Question of Government Spending-Public Needs and Private Wants (Harper & Brothers, New York),1960.

24 T.E.Boneherding, "The Sources of Growth of Public Expenditure in the United States 1902-1970 and "one Hundred Years of Public pending 1870-1970" in T.E.Boreherding(ed.): Budgets and Bureaucrats,(Duke University Press, Durham),1977.

25. B.U.Ratchford, Public Expenditure in Australia (Duke University Press, Durham),1959.

26. A.T.Peacock and Jack Wiseman: The Growth of Public Expenditure in the United Kingdom.(Princeton University Press,Princeton),1961.

27. Suphan Andic and Jindrich Veverka: "The Growth of Government Expenditure in Germany since Unification". Finanzarchiv (January),1964, pp.169-278.

West Germany, Koishi Emi for Japan,[28] K.N. Reddy[29] for India, Goffman and Mahar[30] for Caribbean countries, and Richard M. Bird[31] for Canada.

A number of empirical studies have attempted at the comparison of public expenditure growth in the international frame work.[32] All these studies examined the validity of one or more of the following three hypotheses - the 'law' of ever increasing state activity attributed to Adolph Wagner and the displacement hypothesia and Centralization hypothesis propounded by Peacock and Wiseman.

Scope of the Study :

This is a study of the inter-state comparison of public expenditure growth in India. The Variable chosen for inter-

28. Koishi Emi: Government Fiscal Activity and Economic Growth in Japan, 1868-1960. (Kinokuniya Bookstore Co.Ltd., Tokyo),1963.

29 K.N. Reddy: The Growth of Public Expenditure in India. (Sterling Publishers, New Delhi),1972.

30. J. Goffman and D.J. Mahar.: "The Growth of Public Expenditure in Selected Developing Countries - Six Caribbean countries, Public Finance, 26,1,1977, pp.57-74.

31. Richard M. Bird, op.cit. 1970.

32 Frederick L. Pryor : Public Expenditure in Communist and Capitalist Nations. (George Allen & Unwin, London),1968. Jack Diamond:"Wagner's Law and the Developing Countries", The Developing Economies, March 1977, pp.37-59; S.P. Gupta, "Public Expenditure and Economic Growth, A Time Series Analysis" Public Finance,Vol.No.XXII, No.4/1967, p.427.; S.P. Gupta: "Public Expenditure and Economic Development - A Cross Section Analysis, Finanzar Chiv, October 1968, pp.26-41.

state comparison is per capita expenditure. The states in India provide an excellent opportunity for a comparative study.Their functions are enumerated in the Seventh Schedule, List II of the Indian Constitution.They are constitutionally obliged to fulfil certain "Directive Principles of State Policy." They have similar political institutions and economic structures. At the same time they are sufficiently diverse and independent to exhibit important variations in their decisions of public expenditure allocation. So inter-state comparison of public expenditure growth forms the subject matter of this study.

Objectives of the Study :

As this study comes under the positive theory of public expenditure the emphasis is on understanding the structural change in the behavioural pattern of the state government expenditures.

In the Words of Richard M. Bird, the observed pattern of expenditure may be the result of a systematic pattern of interactions among mutually interdependent economic, social and political forces. He has listed out some factors that potentially influence the pattern of government expenditure.[33]

33. Richard M. Bird. op.cit., p.9.

They are :

I. "Environmental" Factors.

1. Geography (including climate and location)
2. History
3. Constitutional frame work (including legal institutions)

II. "Technological" Factors.

4. Population growth and age structure.
5. Population density and distribution (especially urbanization)
6. Production (and consumption) technology.

III. Economic Factors.

7. Growth of national income.
8. Distribution of income (including regional distribution)
9. Level and rate of growth of per capita income.
10. Rate of price change.
11. Productivity changes.

IV. Political Factors.

12. Ideology.
13. Character of political institutions.
14. Tax tolerance.
15. Occurrence of crises.
16. Attitudes to centralization.

V. Administrative Factors.

17. Nature of budgetary process.

18. Nature of bureaucracy.

19. Habit.

Keeping these factors in mind an attempt is made to find the growth pattern of state government expenditures. In his study Solomon Falricant[34] found out that:-

(1) There were degrees of variations in the per capita levels of each functions,

(ii) Different functions grew at different rates,

(iii) There were variations in the per capita expenditure levels between the states on the same functions.

The present study aims at probing the existence of the abome mentioned trends in the expenditure pattern of state governments in India.

Hence the objectives of this study are:-

(i) To trace the growth pattern of state government expenditures at aggregate and disaggregate levels.

(ii) Secondly we examine the range and trend of the disparity in the per capita expenditure levels of the state

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34 Solomon Fabricant: The Trend of Government Activity in the United States since 1900. (National Bureau of Economic Research, New York), 1952, pp.112-122.

governments. Relating to this objective wherever possible we try to know whether the levels of services provided are in consonance with the per capita expenditure levels.

(iii) Thirdly an attempt is made to identify the factors that explain the variations in the per capita expenditure levels of the states.

Though this study comes under the Positive theory of Public Expenditure it does not attempt to test the validity of the 'Wagner's Law of Increasing State Activity' or 'Displacement' hypothesis and 'Centralization' hypothesis of Peacock and Wiseman. The reasons are as follows :

1. The Wagnerian doctrine refers to the secular tendency of an increasing share of public sector in an economy as the nation undergoes economic development. Since this study confines itself to examining the state expenditures for a period of 20 years only, the secular analysis is not within its purview.

2. The displacement effect refers to a discrete shift in the secular growth path of government expenditures caused by the social upheavals such as war and economic depressions. The study made by K.N. Reddy reveals that there are 'discrete

shifts' in the secular growth path of the expenditures of the general government. General government expenditure refers to the combined expenditures of both the Central and State governments. Further his study has established that the displacement effect produced after Independence is still in force.[35] Hence examination of the validity of the displacement hypothesis is not within the scope of this study.

3. The centralization hypothesis refers to the tendency of government expenditures to concentrate at the higher level of governmental entities at the expense of the lower level governmental units in the process of economic development. This hypothesis has not been examined because this study is concerned with the state expenditure and excludes expenditures of the local governments.

Background of this Study :

India is a federation. Both the Central and State governments have shared the responsibilities of development and social welfare activities. Since the implementation of the Five Year Plans the state governments shoulder greater responsibilities in the developmental and social welfare activities.

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35 K.N. Reddy, op.cit., chapter 3.

The Central Government in India is primarily responsible for defense, foreign relations, communications, foreign trade, foreign exchange, currency and coinage and banking and insurance. The states have the responsibilities of maintenance of law and order, education, public health, medical, agriculture, electricity, irrigation, transport, and forests.[36] Primarily the state governments are responsible for economic and social welfare activities. The climate for economic development is actually provided by them. The provision of the social over heads of development is their essential responsibility.[37]

Prof. D.R. Gadgil has very clearly pointed out the responsibilities of the Central and State Governments. To put it in his own words: "The Centre builds up and maintains the overall instrumentalities of national economic life such as the credit and the monetary system, the railways and the posts. It also acts in relation to the basic requirements of the long term plan of industrialization with emphasis on large industry and exploitation of mineral resources. The states are concerned on the other hand with acting on the total life of all the people in their charge and on all the diffused, dispersed small scale units and activities. The Centre is

36 See R.N. Bhargava: The Theory and Working of Union Finance in India. (Chaitanya Publishing House, Allahabad), 1977, pp.107-108.

37 K. Venkatraman: States Finances in India. (George Allen & Unwin, London), 1967, p.17.

concerned withthe most generalised features of national frame and with highly concentrated actionat a few strategic points; the states must affect all areas and localities, all the relevant fields and all units. The centre is concerned with the strategy of long term plan and with initiating the crucial movements, the states have to engage themselves in transmitting the forces impelling economic development to all areas and units and with concretizing for the individual units the fruits of development. The generalized objectives of a state plan are therefore making possible, initiating and encouraging economic development in all activities and sectors and areas and localities and protecting the standard of living and improving and ameliorating the situation, social and economic of all individuals within their territories. The locality and individual are placed at the centre of the activities of States and providing for the universal impact of the developmental process and for a diffusion of its efforts becomes their primary aim."[38]

How far the states have discharged these responsibilities? This question necessitates a study on the range and varieties of the aspects of the state finances in India. A number of issues are involved in the state finances. According to

38 D.R. Gadgil: Planning and Economic Policy in India. (Asia Publishing House, Bombay), 1965, pp.237-238.

Venkatraman, one may come across the following issues in the state finances of India. "What part have state finances played in the implementation of plans and what effect have the plans had inturn on the finances of states? What is the nature and direction of federal assistance? What is the constitutional position of the states in the federal set-up and what is the actual position and how far have financial trends acted upon constitutional provisions? What are the political and economic implications of the changing constitutional positions? What parts have states played in mobilizing resources for development? What are the trends and directions of revenue and expenditure? How far have the state governments discharged the functions cast on them by the constitution? How far have regional disparities been reduced?"[39] As already stated this study is concerned with the growth pattern of state government expenditures.

Time Period and Area of Study :

This study deals with expenditure growth of the states for a period of 21 years from 1957-58 to 1977-78. The period from 1957-58 was selected because the states were reorganised on linguistic basis in November 1956. Hence comparable data on state governments' expenditures are available only from

39 K. Venkatraman, op.cit., p.16.

1957-58. The expenditure data are account figures and pertain to financial years.

At present there are 22 states in India. This study is concerned with the expenditure growth of 16 major states which have higher expenditure levels. They are: Andhra Pradesh, Assam, Bihar, Gujarat, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

The small states and union territories are left out. The states which are left out are : Himachal Pradesh, Meghalaya, Manipur, Tripura, Nagaland and Sikkim. The reasons for leaving out these states are :-

1. Their expenditures are so low that they cannot be compared with the expenditure growth of other states.

2. Some of them came into existence very recently. For example Meghalaya was carved out of Assam in April 1970 and Sikkim was annexed to India on 26th April 1975.

So the inclusion of these states will lead not only to complicated statistical problems but distort the conclusions also.

Basic Concepts - Government Sector or Activities :

Government sector consists of Public authorities, statutory corporations and government companies registered under the Indian companies Act. In this study the expenditures of the state governments are considered and the expenditures of the trading services are excluded. But the expenditures incurred by the government on them are included. That is, those expenditures incurred on the trading services which affect the budgets of public expenditures are included.

Again, by state expenditures, this study considers only the expenditure of the state governments and excludes the local government expenditures. The local government expenditures are excluded because -

(1) The emphasis of the present study is on the pattern of allocational choice of the state governments. It is unrealistic to assume that a local government could take into consideration the budgetary decisions of all other local governments in a state as well as that of the state government in the process of its own budget deliberations. Further the

expenditure figures of local governments are not available except for the year 1975-76.

(2) Secondly even if the local government expenditures are included the per capita expenditure difference between the state will remain unaffected.[40] Table 1.1 illustrates this.

But the grants made by the state governments to the local governments are included in the state expenditures.

The variable chosen to measure the activities of the state governments is per capita expenditure. The per capita expenditure will show the degree of variations in the activities of the states. Usage of the variable per capita expenditure has some limitations. In the words of James A. Maxwell and J. Richard Aronson: "A per capita measure of expenditure has limitations chiefly because population is by itself an inadequate proxy for expenditure needs. Some groups in the population - for example dependent children and the aged-require extra public expenditure. States differ in meeting their responsibilities here and refined measurement should allow for such interstate variation. A per capita expenditure basis is rough also because it makes no allowance for price or quality differences, state by state, of public

40 K.N. Reddy : The Trend of Government Activity in India since Independence. (M.S. University of Baroda, Baroda), 1976, pp.74-78.

Table 1.1 : Per Capita Expenditure on Selected Functions in 1975-76

States	EDUCATION State Expenditure	Rank	State plus Local Bodies	Rank	MEDICAL AND PUBLIC HEALTH State Expenditure	Rank	State plus Local Bodies	Rank	ROADS AND BRIDGES State Expenditure	Rank	State plus Local Bodies	Rank	GENERAL ADMINISTRATION State Expenditure	Rank	State plus Local Bodies	Rank
1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Andhra Pradesh	25.03	11	26.25	10	10.17	12	12.77	11	3.55	9	4.90	9	7.66	6	7.1[illegible]	7
2. Assam	26..8	10	26.19	11	9.40	13	9.89	13	6.71	3	6.84	3	4.40	14	4.19	13
3. Bihar	17.35	16	17.46	16	5.18	16	5.66	16	1.96	14	2.13	15	4.12	15	3.93	15
4. Gujarat	29.95	6	32.56	5	12.10	10	16.64	5.5	-1.92	16	-1.92	16	6.14	11	4.84	11
5. Haryana	31.83	5	31.9[illegible]	6	12.79	8	16.64	5.5	6.45	4	5.59	4	11.09	3	10.09	3
6. Jammu & Kashmir	38.56	3	38.57	3	17.94	2	19.36	3	23.63	1	23.84	1	14.78	1	13.65	1
7. Karnataka	29.20	7	29.31	7	13.54	6	15.94	9	5.56	5	5.56	6	6.47	10	4.95	10
8. Kerala	55.38	1	55.42	1	15.76	3	16.86	4	4.98	7	5.26	7	6.99	8	5.79	9
9. Madhya Pradesh	21.49	14	21.70	14	8.06	14	9.60	14	4.60	8	4.82	10	4.96	13	4.08	14
10. Maharashtra	34.25	4	37.13	4	14.80	4	25.51	1	1.41	15	5.14	8	10.63	4	8.61	4
11. Orissa	24.75	13	25.03	13	10.30	11	10.89	12	3.12	12	3.38	13	7.55	7	7.28	6
12. Punjab	44.15	2	44.22	2	19.50	1	23.43	2	9.36	2	9.80	2	11.59	2	10.32	2
13. Rajasthan	27.63	8	27.66	9	14.43	5	16.50	8	3.49	10	3.68	11	6.62	9	6.00	8
14. TamilNadu	27.43	9	28.92	8	12.34	9	16.56	7	5.12	6	5.58	5	9.52	5	7.95	5
15. Uttar Pradesh	21.37	15	21.47	15	6.42	15	8.58	15	2.48	13	2.50	14	3.13	16	2.79	16
16. West Bengal	24.73	12	25.41	12	13.21	7	15.26	10	3.31	11	3.46	12	6.10	12	4.28	12

Note: With the State Government expenditure we have included only the expenditures of Urban Local Bodies as the expenditures of Rural Local Bodies are not available.

Sources: 1. State Government Expenditures: Reserve Bank of India Bulletin - September, 1978.
2. Urban Local Bodies Expenditure: Report of the Finance Commission, 1978, pp.193-198.

goods." Further they say, that, "per capita general expenditure is imperfect; .... a more refined measure would be difficult to construct".[41]

It may also be argued that per capita figures are likely to be influenced by the price levels which differ from state to state. But this problem is not of much significance, since the price differences are very small. The small price differences between states do not affect the expenditure variations. Solomon Fabricant observes, "The price differences are small compared with the expenditure differences and therefore could hardly account for much of the variations we find."[42]

So, per capita expenditure is used as a variable to measure the variations in the activities of the state governments.

The 'Expenditure relative numbers' are also computed to know as to what extent the states are financing their expenditures from their own resources. James A. Max_well and J. Richard Aronson say that, "The figures of per capita state - local expenditures can be made more readily comparable by assigning the value of 100 to the national average and

41 James A. Maxwell and J. Richard Aronson, Financing State and Local Governments. (The Brookings Institution, Washington,D.C.), 1977, pp.32-33.

42 Solomon Fabricant, op.cit., p.113.

computing relative numbers that express how much each state spends in relation to this national average."[43]

Elimination of Price Changes :

To trace the growth of public expenditure in real terms the influence of price changes should be eliminated. It is usually difficult to deflate government expenditure as it is not only composed of expenditure on goods but on services also. According to J.B.D. Derkson, government expenditure should be deflated by two indices (a) index of salary rates and (b) special price index.[44]

According to Peacock and Wiseman government expenditure may be deflated by two separate price indices; (a) a separate price index to deflate Capital expenditure and (b) another price index to deflate current expenditure on goods and services, transfers and subsidies".[45]

But Peacock and Wiseman have further said that, "the construction of separate price index for government expenditure presents difficult statistical problems and the computation and use of more than one such index would in our judgement, have added more to complexity than to enlightenment".[46]

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43 James A. Maxwell and J. Richard Aronson: op.cit., p.34.

44 Quoted by K.N.Reddy, The Growth of Public Expenditure in India. (Sterling Publishers, New Delhi), 1972, p.18.

45 Peacock and Wiseman: op.cit., p.156-158.

46 Ibid, p.8.

Hence only one index is used in this study to deflate the government expenditure. The index implicit in the official estimates of national income in current and constant 1960-61 prices has been used to deflate the expenditure data.

Methodology :

The ratio of difference between the maximum and minimum per capita levels has been calculated to explain the range of difference between per capita levels. But this simple measure does not throw any light on the general inter state disparity in the per capita expenditure levels. As a measure of inter--state disparity the coefficient of variation is more suitable. Therefore to find the absolute variation and relative variations in the per capita expenditure levels we have computed Standard Deviation and Coefficient of Variation respectively. In computing Standard Deviation the following formula has been employed as the number of states involved are sixteen only.

$$\sigma = \sqrt{\frac{\Sigma x^2 - (\Sigma x)^2/N}{n-1}}$$

Further the rank correlation coefficient technique has been adopted (1) to trace the relative ranking of the states and (2) to find out whether the states with higher or lower per capita expenditures expanded their per capita levels faster than the other.

There were 14 states upto 1960-61 and 15 states upto 1966-67. This posed the problem of ranking as the rule is that the number of observations and ranks should be equal. This problem was overcome with help of the assumption of Pandic and Veverka that "territorial changes have not affected per capita estimates". Appropriately we assigned the per-capita expenditures of Maharashtra (erstwhile Bombay State) and Punjab to Gujarat and Haryana for their respective pre-bifurcation periods.

The per capita expenditures were ranked in decending order, that is, from highest level to lowest level. The rank correlation coefficient are Spearman's coefficients. Spearman's rank correlation coefficient is defined as

$$r_k = 1 - \frac{6 \Sigma D^2}{N^3 - N}$$

r_k denotes rank coefficient of correlation.

D refers to the difference of ranks between paired items in two series.

Where equal ranks are assigned to some observations an adjustment in the above formula is made. The adjustment consists of adding $\frac{1}{12}(m^3-m)$ to the value of ΣD^2, where 'm' stands for the number of times whose ranks are common. Then the formula is

$$r_k = 1 - \frac{6\{\sum D^2 + 1/12(m^3-m) + 1/12\ (m^3-3) + \ldots\ldots}{N^3-N}$$

In calculating rank correlation coefficient both the above formulae have been suitably made use of at appropriate situations.

The Nature and Availability of Data :

The new accounting classification suggested by the Team on Reforms in the Structure of Budget and Accounts' was introduced in the Central and State budgets in 1974-75.[47] Hence in view of its suitability for comparison the expenditure data from 1957-58 to 1973-74 were reclassified as per the changes suggested in the new accounting procedure.

Prior to 1961-62 Administrative services and Social and Developmental Services were combined under one head namely Civil Administration. Since 1961-62 the revenue expenditures were classified under different heads namely cost of collection of taxes, Administrative Services, Social and Developmental Services, Multipurpose River Schemes, Public Works, Transport and Communications, Miscellaneous, Miscellaneous Compensation and Assignments, and Extra-ordinary items.

As per the new accounting procedures introduced in 1974, expenditures are classified under various functional heads

47 Reserve Bank of India Bulletin, May 1974, p.883.

namely organs of State, Fiscal Services, Debt Services, Administrative Services, Social and Community Services, General Economic Services, Agriculture and Allied Services, Industry and Mineral, Water and Power Development, Transport and Communication, and Compensation and Assignments to Local Bodies and Panchayat Raj Institutions.

In order to get consistent data suitable for comparison the expenditure data for the period from 1957-57 to 1973-74 were reclassified and regrouped with the help of the 'Statement of Classification' made available by the Ministry of Finance, Government of Gujarat.

But there are some limitations in the procedures followed in reclassifying and regrouping the expenditure data for the period from 1957-58 to 1973-74. A few minor expenditure heads were not clear and specific enough to be classified and included in the new expenditure heads. So they were included under Mis. General Services or Misc. Economic Services depending upon the purpose for which they were incurred. For example in the Revenue Account the unallocable expenditure of non--developmental nature were included in the Miscellaneous General Services and unallocable expenditures of developmental nature were included under Miscellaneous Economic Services. In the capital account the unallocable expenditures were included under Miscellaneous Economic Services.

Difficulty arose in estimating per capita expenditure because of the bifurcation of the states. The Bombay State was bifurcated in to Maharashtra and Gujarat in 1960 and the Punjab State was divided into Punjab and Haryana in 1967. Further Nagaland was formed out of Assam in 1963, Maghalaya and Mizoram were carved out of Assam in 1970 and 1972 respectively. To overcome the difficulties, we adopted the assumption that the territorial changes have not affected per capita estimates.[48]

The per capita expenditure estimates for the years from 1961-62 to 1978-79 were made on the basis of the mid-year population estimates published in the Report on Currency and Finance[49] published by the Reserve Bank of India.

The population figures for the years 1957, 1958, 1959 and 1960 for each state were computed with help of the population growth rates published in the book, "Population in India's Development - 1947-2000".[50]

The State government expenditure data for the years 1957-58 to 1973-74 were collected from the respective volumes

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48. This assumption was made by Suphan Andic and Jendric Veverka in their paper "Growth of Government Expenditure in Germany since Unification". Finanzarchiv (January 1966),p.169-278. K.N. Reddy has also followed this assumption in his book, "The Growth of Public Expenditure in India" (Sterling Publishers, New Delhi), 1972, p.21.

49. Report on Currency and Finance,1975-76,Vol.II,(RBI),pp.14-15.

50. M.K.Premi:"Some Aspects of Population Distribution and Regional Analysis" published in 'Population in India's Development: 1947-2000', ed.by Ashis Bose et al. (Vikas Publishing House, Bombay), 1974, p.262.

of Combined Finance and Revenue Accounts of Central and State Governments in India published by the Comptroller and Auditor General, Government of India. The expenditure data for the years from 1974-75 to 1977-78 were taken from the various issues of Reserve Bank of India Bulletin, published by Reserve Bank of India.

Chapter Scheme :

Chapter I is introductory. It gives an account of the Theories of Public Expenditure, Scope of the Study, Objectives of the Study, Background of the Study, Time Period and Area of the Study, Basic Concepts, Methodology and Nature and Availability of Data.

Chapter II presents the growth pattern of Revenue Expenditure of the States along with the financial resources. It also traces the expenditure preferences of the states.

Chapter III deals with the growth pattern of the expenditure on Administrative services and cost of collection of taxes. It also provides the reasons for the growth of the administrative expenditure and inter-state variation in the per capita expenditure levels.

Chapter IV discusses the growth pattern of the expenditure on Social and Community services and traces the inter-state variations in the per capita expenditure on Education (at diaggregate level), and Medical and Public Health. It also gives a brief account of the level of services provided by the states.

Chapter V analyses the growth pattern of the expenditure on Economic Services and its components Agriculture and Allied Services, Industries and Minerals, Transport and Communications and Water and Power Development services - along with the reasons for the growth and inter-state variations in the per capita expenditure levels.

Chapter VI examines the growth pattern of Capital outlay and its components. It also reveals the financial performances of State government undertakings, cooperative institutions; State Road Transport undertakings, State Electricity Boards and Irrigation Projects.

Chapter VII traces the growth of gross interest payment along with the growth of public debt and interest rates. It also examines the burden of total debt services and Public debt in relation to State Income and Tax Revenue of the states.

Chapter VIII purports an analysis of the cross-sectional evidences concerning the determinants of expenditures of the states.

Chapter IX contains a summary of conclusions.