Central Government Expenditure

Growth, Structure and Impact (1950-51 to 1977-78)

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NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY

The book provides, for the first time, authoritative information on the growth of Central government expenditure, both in money and real terms, and the factors accounting for it. Several conceptual and statistical problems concerning the study of government expenditure have been exhaustively discussed. Contribution of increase in prices, wages, employment and volume of goods purchased to the growth of Central government expenditure has been quantified. Expenditure by different functional categories in real terms has also been examined, while an attempt has been made to estimate income elasticity of the major categories of expenditure.

Commodity composition of Central government purchases and a State government's purchases—namely, Gujarat—have been made and their impact on different sectoral outputs also has been estimated through the input-output matrix. Direct and indirect output multipliers of government purchases have, therefore, been quantified.

The book serves as a factual document for all those whose concern is with the growth of government expenditure and policy formulation. It is hoped that the present study will be useful to students of public finance in general and research workers in particular.

Rs. 80

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PREFACE

THE National Institute of Public Finance and Policy is an autonomous, non-profit organisation whose major functions are to carry out research, do consultancy work and undertake training in the area of public finance and policy. In addition to carrying out on its own research studies on subjects that are considered to be important from the national point of view in terms of policy formulation, the Institute also undertakes research projects on subjects of public interest sponsored by member governments and other institutions.

The present study was sponsored by the Planning Commission, Government of India. In view of the lack of authoritative information on the growth of government expenditure and the factors accounting for it, we felt the need for an in-depth study of Central government expenditure. A research proposal for this was sent to the Planning Commission in January 1979. We had proposed that we would undertake a study of the causes of growth of Central government expenditure, its commodity composition and the impact of government purchases on sectoral output. The Planning Commission, while agreeing to our proposal, wanted us to cover a few more aspects of public expenditure such as the income elasticity of major categories of expenditure and the commodity composition of the expenditure of at least one State government. After extended discussions with the Planning Commission, it was agreed that the project should have the following terms of reference:

i. To study the growth of Central government expenditure in real terms by using appropriate price deflators;
ii. To identify the extent to which the growth of expenditure can be attributed to increase in prices, wages, employment and volumes of goods purchased;
iii. To examine the growth of expenditure by different functional categories;
iv. To estimate the income elasticity of the major categories of expenditure;

v. To study the impact of Central government purchases on different sectoral outputs through (a) the examination of the commodity composition of government purchases and (b) the application of the input-output matrix;

vi. To study the impact of one of the State governments' purchases on different sectoral outputs of the economy through (a) the examination of the commodity composition of the State government's purchases and (b) the application of input-output table.

The study was begun in October 1979 and was completed by the end of June 1981. Report writing took up the months July-October, 1981.

The study has been conducted by a team of economists headed by K. N. Reddy who was the project leader. In this capacity, he planned and supervised the study. The other members of the project team were J.V.M. Sarma and Narain Sinha. In the initial stages of the project, Srinivasa Madhur was also associated with it.

In addition to his overall responsibilities as the project leader, Reddy carried out the conceptual, statistical and economic analysis of the growth of Central government expenditure and the structure of Central government expenditure. He was also responsible for working out the income-elasticities of diflerent categories of Central government expenditure (Chapters 1 to 5). K.K. Atri helped the team in working out the percentage shares of the increase in government expenditure attributable to various factors such as increase in employment, increase in prices, increase in volume of goods bought and so on. J.V.M. Sarma undertook the study of the commodity composition of Central government expenditure and its impact on sectoral outputs. Narain Sinha undertook the study of the commodity composition of the purchases of Gujarat government and its impact on different sectors of the economy (Chapter 7).

Gautam Naresh rendered research assistance throughout the duration of the project and helped the team in various ways. Sitamahalakshmi, Sujata Datta and O.P. Bohra also worked on

the project for varying periods of time, mainly in relation to data collection and tabulation.

The Governing Body of the Institute does not take responsibility for any of the views expressed in the Report. The responsibility for the conclusions arrived at and the views expressed belongs to the Director and the staff of the Institute, and more particularly, to the authors.

R. J. CHELLIAH
DIRECTOR

ACKNOWLEDGEMENTS

IN view of the multiple objectives of the study, the considerable volume of conceptual and statistical problems that had to be tackled, several people had to work together as a homogeneous team. In this regard, I was fortunate in having, as members of the team, Shri J.V.M. Sarma and Shri Narain Sinha, who extended their cooperation fully and ungrudgingly. Their respective contributions have been mentioned in the preface. They participated in all the discussions and made useful suggestions. Shri Gautam Naresh took immense pains in building up the time-series data and bore the brunt of data processing. Smt. Sitamahalakshmi, Shri O.P. Bohra and Smt. Sujata Dutta gave excellent support in data collection.

Dr. R.J. Chelliah took keen interest in the project throughout its duration. He went through the report meticulously and not only made useful suggestions but also improved the style of presentation. Shri K.K. Atri, Econometrician, gave useful suggestions on whatever statistical problems that were referred to him. A.K. Halen ably handled all our computer operations.

A large number of persons in the different departments of the Central government and the Government of Gujarat helped us in various ways. Among those from the Planning Commission, Government of India, we would like to mention Prof. D.T. Lakdawala (formerly Deputy Chairman), Prof. Raj Krishna (formerly Member), Dr. Manmohan Singh, (formerly Member) Shri S.K. Govil, Dr. Y.K. Alagh, (formerly Adviser) Dr. D.R. Gupta, Dr. P.R. Panchmukhi (formerly Joint Adviser), Shri K.C. Mazumdar, Shri S.G. Apte and Dr. R.N. Lal. Among the Financial Advisers of different Ministries, Sarvashri N.K. Panda, R.S. Raghavan, A.V.N. Iyengar and M.P. Agarwal of the Ministry of Finance; Smt. Uma Roy Chaudhury of CSO; Sarvashri P.C. Sarkar and Shri B.R. Zulka of DGS & D; and Shri C.P. Sampat and other officials of the Government of Gujarat; and Shri S.P. Gupta of Sambalpur University, helped us in a variety of ways. To all of the above mentioned we are deeply grateful.

Professor Alan Peacock of University College at Buckingham and Alan A. Tait of International Monetary Fund deserve our grateful thanks for their useful comments on the draft.

Shri Suhas Kumar rendered outstanding secretarial assistance throughout the duration of the project. He coped with the successive versions of the report with exemplary skill and patience. In the initial stages, Miss Sushila Panjwani rendered secretarial assistance. The final typing of the Report was done by Shri Suhas Kumar and Shri K.R. Subrahmanian with commendable thoroughness. Shri Christopher Cecil edited the press copy and supervised its publication.

We are thankful to all of them.

K.N. REDDY
PROJECT LEADER

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1. Introduction

Importance

IT has become common in most of the non-communist countries of the world, to worry about the growth of government expenditure. This is not without its reasons. The principal reason seems to be the "extra" rapid growth of government expenditure and deleterious effects on the rest of the economy. Government expenditure as a percentage of Gross National Product (GNP) /Gross Domestic Product (GDP) has grown much above the danger mark (25 per cent of GNP) mentioned by Colin Clark. It has grown from 21.7 per cent to 32.8 per cent in Australia, from 25.1 per cent to 39.4 per cent in Canada, from 25.5 per cent to 46.4 per cent in Denmark, from 30.2 per cent to 44 per cent in Germany, from 32.3 per cent to 44.5 per cent in the UK, and from 25.9 per cent to 35.1 per cent in the USA during 1955-57 to 1974-76[1]. During the same period, in India, it has grown from 12.16 per cent to 18.71 per cent[2].

Several studies have been made so far and many more have been called for on the growth of government expenditure in various countries. Buchanan, J.M. (1977, p. 3) commenting on the rising share of government expenditure in GNP in the USA, has observed that

> "People should be increasingly concerned about higher and higher taxes levied in support of governmental programmes that become less and less efficient in providing benefits of real value. The need to understand why government grows so rapidly seems urgent. If the explosion is to be stopped or even slowed down, we must have some understanding, some explanation of why it is occurring, we must explain the institutional and political processes that produce the results that we see, results that seem fully desirable only to the bureaucrats on the expanding public payrolls."

Bacon, R. and Eltis, W. (1976, pp. 4-5), writing on the growth of government expenditure in the UK have warned that "extra" rapid growth of government expenditure would cause difficulties

in two ways: (i) it reduces the marketed output and (ii) it increases what producers must lose out of a diminished total of supply and needs of non-producers. Thus, if workers' £ 2000 million are transferred from the market sector to the unmarketed, output will fall by £ 2000 million (before tax). Another writer has felt that excessive government spending in the UK results in inflation, high taxation, high generation of black money, increases in disparities of income, fall in production, employment, income, investment and savings (Wilson, T. 1976, pp. 30-31).

In India too, serious concern has been voiced about the growth of government expenditure. During the past two decades quite a few studies have been made[3] and most of them have argued for the effective utilisation of funds. More recently, the late Professor C.N. Vakil (1978) stressed that "there have been various commissions of enquiry into other activities, but we have not known of any enquiry into government expenditure which has grown to astronomical figures." Mr. Charan Singh (1979), the then Deputy Prime Minister and Finance Minister, voiced his concern about the growing volume of government expenditure. In his budget speech (1979), he declared that "it is important to contain the growth of government expenditure and also to ensure that the funds are utilised effectively for the promotion of common good". The Government appointed an Expenditure Commission on May 29, 1979, with several terms of reference but wound it up in early 1980 without waiting for its report. Nobody knows the exact work undertaken by that Commission. All the same, enough concern has been there on the rapid growth of government expenditure. But this concern has no meaning until the facts about the growth of government expenditure are fully known. There are, therefore, several aspects to be studied. The most important of them are the growth, structure and the time pattern of government expenditure in nominal and real terms and the impact of government purchases on different sectors of the economy.

Two Approaches

Government expenditure may be studied either from the normative point of view or from the positive point of view. The nor-

mative approach concerns itself with the requirements of achieving the optimal provision of public goods and services. It corresponds to the analysis of efficient behaviour of households and firms in the private sector and calls for a type of economics which in professional jargon is referred to as welfare economics. In fact, it provides a rationale for the allocation function of budget policy. The positive approach concerns itself with economic and political analysis which attempts to understand and explain the observed pattern and level of government expenditures and changes in those expenditures over time as well as to measure the impact of (changes in) government expenditure. *Inter alia*, it encompasses the analysis of the growth of government expenditure, factors governing the growth of government expenditure, behavioural pattern of government expenditure during the secular and short period and the impact of government expenditure on economic activity in the country.

Our Approach

Ours is a positive approach. Through this, we shall analyse the growth of government expenditure in nominal and real terms from 1950-51 to 1977-78, explain the factors underlying that growth, discuss the commodity composition of government purchases and estimate their impact on different sectoral outputs.

To be more specific, we aim at studying:

i. the growth of Central government expenditure in nominal and real terms;
ii. the sources of growth of Central government expenditure;
iii. the changes in the structure of Central government expenditure;
iv. the elasticity functions in relation to major categories of Central government expenditure;
v. the commodity composition of Central government purchases;
vi. the impact of Central government purchases on various sectors of the economy;
vii. the commodity composition of a State government's purchases; and

viii. the impact of a State government's purchases on various sectors of the economy.

Scope

A comprehensive study of government expenditure in India should cover at least the Central and the State governments because the latter account for a sizeable portion of the combined expenditure of the Centre, States and Union Territories. But this study is confined to the Central government expenditure for which two important reasons may be cited. Firstly, classified and refined budgetary data are available for a fairly long period for the Central government only. Classification on the same lines will have to be carried out for the States also. Secondly, classification of data by economic and functional categories (from 1966 onwards) is available for the Central government only. The time and resources at our disposal do not permit us to classify the State budgets. In some respects this study is intended to be exploratory.

Sources of Data

Several sources have been depended upon. The most important of them are (i) *An Economic and Functional Classification of the Central Government Budget* (annual), (ii) *Detailed Demands for Grants of the Government of India*, published by the Economic Division, Department of Economic Affairs, Ministry of Finance, Government of India, New Delhi and (iii) *The Combined Finance and Revenue Accounts of the Union and State Governments*, published by the Comptroller and Auditor General, Government of India. The first two formed the main source and the third was referred to as and when corroborative evidence was needed. Quite a few other sources also were consulted, details of which are given in Appendix C. Except where otherwise indicated, the sources of all tables in the text are the sources of data mentioned in this Appendix. In this connection, it may be noted that the data by functional categories were not available for the entire period. Whatever time series data were available for the period 1950-51 to 1977-78, were all on economic categories only. Unfortunately, the time series data by functional categories were available only from 1965-66. Thus there was a gap of data for

the period 1950-51 to 1964-65. In order to bridge this gap, we used other publications, namely, NCAER (1960, 1961) and Rangnekar, S.B. (1958). But neither could help us fully; NCAER's study was useful to some extent as it could provide data for the year 1957-58 and the same were used for our purpose after making some adjustments. Adjustment of data, by way of regrouping items, was necessary to make them comparable to those of government publications.

Chapter Scheme

With the aforesaid background, the second chapter initiates a discussion on conceptual and statistical problems in the trend analysis. The third chapter traces the growth of aggregate Central government expenditure. The fourth chapter analyses changes in the structure of Central government expenditure. The fifth chapter presents the estimates of elasticities of major categories of expenditure. The sixth chapter discusses the composition of government purchases (Central government) and examines their impact on the sectoral outputs. The seventh chapter analyses the impact of the State government purchases. The concluding chapter presents the main findings.

A statistical appendix is given at the end of the report. It contains a discussion of all those conceptual and statistical problems which could not be incorporated into the text. It also includes a note on sources of data and the statistical tables that formed the basis for the textual tables.

NOTES

1. For an excellent analysis of the trends of government expenditure in different countries, see OECD, 1978.

2. The total government expenditure here includes the expenditure of the Central government, the State governments and the Union Territories. It differs from the total found in the publications of the Reserve Bank of India and in *The Combined Finance and Revenue Accounts of the Union and the State Governments*, published by the Comptroller and Auditor General, Government of India. It is adapted from *Indian Economic Statistics—Public Finance*, Vol. II, a monogragh brought out annually by the Ministry of Finance, Government of India. While classifying the data we have excluded (i) loans and advances, (ii) self-balancing items, and (iii) transfers to funds as they do not constitute the money spent by Government. This definition of government expenditure is not without

precedent. A similar definition has been adopted by Andic, S. and Veverka, J. (1964) in a study similar to ours. If we include all the items, the percentage share comes to 20.78 per cent of GNP (see Table A. I in the Statistical Appendix).

3. To mention a few : Gulati, I.S. (1961a, 1961b and 1963), Gupta, A.P. (1977,1980), Mukherjee, K. (1965), Premchand, A. (1963) and Reddy, K.N. (1972, 1976).

2. Conceptual and Statistical Problems

Introduction

This chapter discusses the four major conceptual and statistical problems which are fundamental to an analysis of government expenditure: (i) definition of government expenditure, (ii) elimination of price changes, (iii) choice of national income concept and (iv) meaningfulness of expenditure ratio. These aspects must be clarified before attempting an interpretation of changes in government's budgetary expenditures.

Definition of Government Expenditure

Government may be defined in more than one sense, depending on the view one takes. As the *United Nations Manual for Economic-Functional Classification of Government Transactions* (1958, p. 7) puts it, the word 'government' may be used as a noun or adjective. As a noun, it refers only to the executive or administrative organisation in central charge of a country's affairs. If the term is used as an adjective, it refers to (a) all bodies legislative and judicial, as well as executive, that are established through political processes, including both the Central government bodies with compulsory powers extending over the whole territorial area of a country and bodies at lower levels with similar, though more limited, powers extending over only a part of the area and (b) all agencies directly answerable for their actions, in particular, actions connected with the receipt and expenditure of money to the bodies covered by (a). All organisations covered by the definition are referred to collectively not as the government of a country, but as the government sector of the economy. The definition of government in the sense of a noun is too narrow to allow a study of the impact of government expenditure on the economy. It has to be necessarily broad; and in our case it should include all the activities of the Central government as a political and administrative authority. Hence, we use the term government to mean government sector. However, a serious

question arises. How should we define the expenditure of the government sector? In defining government expenditure, many studies on public expenditure—Peacock and Wiseman (1967), Andic, S. and Veverka, J. (1964), Gupta, S.P. (1967), Emi-Koishi (1963), Pryor, F.L. 1965), Reddy, K.N. (1972), Bird, R.M. (1971), Goffman, I.J. and Mahar, D.J. (1971), Diamond, J. (1977) and Andre, C. and Delorme, R. (1978)—have made a clear distinction between those activities of the government which arise out of a collective demand for goods and services (e.g., health services) and those which are a part of the ordinary productive activities of the community (e.g., rail transport) although carried on, or controlled by, government agencies. Some studies adhered to the exclusion of all trading services while some others did not. For example, while Peacock and Wiseman (1967) included the expenditure on the post office as a matter of historical necessity, Andre and Delorme (1978) excluded it altogether. In their words (1978, p. 42), "The definition of public expenditure which we adopt is concerned with outlays appearing in public administration budgets which are financed through non-market mechanism (taxation only). It excludes expenditures having their direct counterpart in disbursements by the purchase of a service, a typical example of which is the post office whose resources and expenditures appear in the Central budget in France. Obviously, it also excludes the entire nationalised and market public sector."

We need to decide which definition is more suited to our purpose. Since the purpose is to study the factors underlying the growth of government expenditure and its impact on the economy, our choice would be in favour of a definition which includes those government expenditures which are outside the purview of market forces. To be specific, we have included all expenditures of general government and the expenditure on capital formation by departmental enterprises whose accounts are part of the Central government budget. The Government of India has been compiling data on these lines for the past several years, in its publication *An Economic and Functional Classification of the Central Government Budget*, issued annually.

The above definition clearly excludes the transactions in commodities and services and transfers on Current Account of

Departmental Commercial Undertakings; the reason is that the operations of Departmental Commercial Undertakings are in the nature of entrepreneurial activities of the Government. Current expenditures of these undertakings, like working expenses of productive enterprises, constitute intermediate expenditures that enter into the prices of goods and services as they are sold to other sectors of the economy. Therefore, they are different in character from final outlays by Administrative Departments.

In brief, our definition of government expenditure excludes the current expenditure of Departmental Commercial Undertakings, but includes their expenditure on Capital Account.

A word about the other productive trading services run by the Central government. It must be noted that apart from the departmentally run Commercial Undertakings such as Railways, Post & Telegraphs, Opium Factories and Alkaloid Works, Overseas Communication Services, Transport Schemes, Power Projects including Power Stations, Forests and Delhi Milk Scheme, there are statutory corporations like the Damodar Valley Corporation, the National Industrial Development Corporation and the National Research Development Corporation and financial institutions like the Reserve Bank of India, the State Bank of India, the Industrial Finance Corporation of India and the Industrial Development Bank of India, which are under the jurisdiction of the Central Government. No part of the expenditures of these organisations are included in the definition of the Central government expenditure. Thus, the definition of the Central government expenditure adopted here corresponds to the definition adopted by the Ministry of Finance in *An Economic and Functional Classification of the Central Government Budget.*

But doubts may arise as to the comprehensiveness of this definition, for the undertakings of the Central government, although run on commercial lines, need not have been established with the sole aim of profitability. For example, profitability could hardly have been the only criterion for managing the railways. Many other considerations must have influenced decisions to lay new railway lines such as defence requirements or social considerations. Similar may be the case with respect to

several training services. Under normal circumstances, whenever non-commercial considerations are predominant, the cost of such services should be included in government expenditure. Our definition of government expenditure, which excludes all current expenditure on trading services, may thus understate the expenditure of the Central government.

Elimination of Price Changes

The growth of government expenditure at current prices does not reflect the increase in real expenditure since changes in the prices at which the governmental inputs are purchased continuously influence the growth of government expenditure. The elimination of price changes gives rise to the problems of choice of the appropriate price index and the index number.

The first step towards elimination of price changes is the choice of a suitable price index. An index of the prices of government inputs is usually not available and that of outputs conceptually impossible. The practice of using an index derived from other series, which can be considered as being subject to the same price movements, is not only quite usual but often the only possible method. Thus most of the studies on government expenditure use either a cost of living index or an index of wholesale prices[1]. This is a very crude method and its application may be "terribly misleading[2]. As Peacock, A.T. and Wiseman, J. (1967, p.8) observed, "there is no reason to suppose that the composition of government purchases will be the same as that of the purchases of the community as a whole. Indeed, the great importance of some kinds of government expenditure (e.g., on public employment of particular types of labour) is enough to suggest that such a coincidence is unlikely." They tackled this difficulty by applying two indices: one price index for capital formation and another, the current goods and services price index, for government current expenditure on goods and services, transfers and subsidies and the very small changes in stocks." Andic and Veverka (1964, p. 177) used (a) the movement of prices of selected commodities and (b) the index implicit in the official estimates of the national product at current and constant prices. Pryor, F.L. (1968, pp. 403-4) applied two sets of price indices—one set for military expenditure and another for non-military expenditure. For

expenditures other than military expenditure, three series—(i) wages data, (ii) non-agricultural wholesale price index and (iii) cost of living index—were used and for military expenditures two series—weighted price index of manufacturing production and composite index of wage and wholesale prices—were used. Bird, R.M. (1970, pp. 235-8) applied "a separate Paasche price index for goods and services" and "an index related to the private expenditures". More recently, Andre and Delorme (1978, p. 42) employed three indices, namely, retail price index, wholesale price index and implicit GDP price index[3].

It is clear that there has been no uniformity in the application of deflators to convert current expenditure series into constant expenditure series. But one thing is obvious, namely, that all the studies have depended on the available price indices rather than construct special indices for their specific purpose.

In our case also the construction of expenditure series at constant prices has been a thorny problem. We also believe that the application of a single price index, say, the wholesale price index or the consumer price index or the implicit national income deflator, to all components of expenditure will give a misleading picture. An appropriate price index should be applied to each part. This seems to be the only alternative since the composition of government expenditure is very much heterogenous. The lines on which we have deflated the government expenditure series are outlined below.

First, the total Central government expenditure is disaggregated into:

(i) expenditure on wages and salaries;
(ii) expenditure on goods and services on current account;
(iii) gross capital formation;
(iv) current transfers;
(v) capital transfers; and
(vi) net financial investments and loans to the rest of the economy.

Each one of them is then deflated by an appropriate price index.

Expenditure on wages and salaries is deflated by the implicit deflator for the compensation of employees of the government administration which was derived by using the data on the

compensation of government employees at current and constant prices given in Central Statistical Organisation's (CSO) *National Account Statistics*.[4]

Expenditure on goods and services is deflated by the index constructed by the Directorate General of Supplies and Disposals (DGS&D) for the purchases it makes for the government. One could have used the wholesale price index, but it would not be proper as the purchases made by the government are governed by prices different from those at which the rest of the economy makes purchases. The purchases of the government are usually done through DGS&D, often at a much lower price than the wholesale price. Moreover, the pattern of weights in the construction of the wholesale price index differs significantly from the pattern of weights used in the construction of DGS&D index[5]. Hence, we attempted to construct a special index and discovered subsequently that it moved with the DGS&D's own index. So we decided to use the latter[6]. However, it must be mentioned that the DGS&D index does not cover all commodities purchased by the government, because it excludes those goods that are purchased directly by the departments[7].

Gross capital formation by government is deflated by the implicit price deflator for gross capital formation in the public sector, derived from CSO's estimates of public sector capital formation at constant and current prices.

In regard to current transfers, how different types of expenditures are to be deflated remains an insoluble problem. The reason is that no available index would show the real value of transfers. What index should be applied to interest payments? If we take the point of view of the recipients, these payments must be deflated by the consumer price index or an index similar to it. From the point of view of producers, interest payments must be deflated by an index of producers' prices. Moreover, most of the recipients of interest payments are not individuals; they are institutions such as the Life Insurance Corporation, commercial banks, and financial institutions which are owned by the government. What index should be applied to subsidies? Subsidies are of many types—for export promotion, food, fertilizer, interest—and nobody knows who exactly the beneficiaries of these subsidies are. We cannot

choose the consumer price index since not all of them are consumption subsidies. The types of subsidies are such that the choice of any single index would create problems. Similarly, what index should be used for grants? Grants are given to the State governments, Union Territories, local bodies and the private sector. It is not easy to determine an appropriate deflator for each of them. Therefore, we have no alternative to applying the implicit GDP deflator to all current transfers.

Capital transfers are deflated by the index with which capital formation was deflated since the transfers are meant for asset creation. A word about the nature of these transfers is warranted since reference has been made to capital and current transfers. Capital transfers refer to (a) grants given to States and Union Territories as Central Assistance (plan grants as well as such grants in the revenue budget as are intended to assist capital formation), (b) grants given to non-departmental commercial undertakings, (c) grants given to public sector institutions like the Council of Scientific and Industrial Research and Institutes of Technology for purchase of equipment and for construction and (d) grants to foreign countries.

Financial investments and loans to the rest of the economy are deflated by the implicit GDP deflator. The components of this item cannot be treated either as transfers or as expenditure on goods and services. They comprise investments in the shares of government and other concerns, loans for capital formation to States, Union Territories, local authorities, non-departmental commercial undertakings, etc., subscriptions to international financial organisations and net purchase of gold and silver. If this item had comprised loans intended for capital formation, we would have used CSO's implicit capital formation deflator. However, since several other items were mixed up in the total we have used the implicit GDP deflator.

Relation to National Income

A simple tracing of the trend of government expenditure may not tell us much unless it is related to the capacity of the community or output of the community. But to which concept of national income should the Central government expenditure be related? We have used GNP at market prices. One may question

this choice as there may be grounds for preferring some other concept. While some have used GNP at factor cost[8], others have used GNP at market prices,[9] and yet others have used GDP at factor cost/market prices.[10] If the purpose is to measure the proportionate creation of economic wealth by the government, then Net National Product (NNP) might be more suitable. But the calculation of depreciation presents such problems that even if broadly comparable series for net product were provided, they would be unlikely to give a more reliable indicator than the gross product measure. The choice of GNP at factor cost is questionable on the ground that it excludes indirect taxes while government purchases include indirect taxes; since government purchases are made at market prices, the national income aggregate selected should be at market prices rather than at factor cost in order to maintain consistency. As has been argued by Gupta, S.P. (1968, p. 29), the subtraction of indirect taxes (minus subsidies) from GNP, in order to compute GNP at factor cost, would involve the highly doubtful assumption about the shiftability of such taxes.[11]

As between GNP and GDP at market prices, our preference for the former is justified on the grounds that (a) income accruing to nationals is more relevant than income produced domestically and (b) the net inflow of factor incomes to India is negative.

Meaningfulness of Expenditure Ratio

The ratio of government expenditure to community output throws up answers to such questions as: What proportion of output generated in the country is absorbed by government? What likely consequences would follow because of such absorption? What structural changes would come about in the economy, if government expenditure grows? And how much of the output is used for what purpose? But the question may still be raised whether we can really measure the proportion of government expenditure on the lines of the definition adopted above. Government expenditure, the numerator, includes transfers and subsidies whereas GNP, the denominator, excludes them. This technical question has bothered many a study like ours. If we express total government expenditure (including transfers,

etc.) as a proportion of national income, the result gives an exaggerated impression of the share of total community output taken by the government. On the other hand, a similar ratio omitting transfers and subsidies would be without any general significance as a rough indicator of the government's overall influence in the community. The decision to exclude or include transfers from the numerator is crucial. If the intention is to measure the role of government as a consumer of resources, transfers must be excluded. But transfers and subsidies are also the sums spent by the government. They are spent from the same revenue pool as the other categories. Had there been no subsidies and transfers, that much money would have been available to government to be spent on goods and services. Therefore, to exclude transfers and subsidies from the definition of government expenditure would be to understate government expenditure. Government consumption plus capital formation as a percentage of GNP measures only the proportion of resources directly absorbed by the government. The more inclusive definition used here measures the government's control over aggregate demand and provides more meaningful answers to the question: Did government share of aggregate expenditure, before and after price adjustments, change significantly over the period studied? If so, what were the directions and magnitude of changes?[12]

NOTES

1. It is difficult to mention all those studies which have employed a single index number for deflating government expenditure. However, a few examples may be in order: O'Donoghue, M. and Tait, A.A. (1968), Blondal, G. (1969), Goffman, I.J. and Mahar, D.J. (1971) and Peacock, A.T. (1978) employed the cost of living index. Reddy, K.N. (1972) employed the wholesale price index and the implicit national income deflator. There are also studies which have used "appropriate price deflators".

2. For a succinct comment, see Derkson, J.B.D. (1951).

3. A very interesting discussion has been carried out on the choice of deflators in a recent article by Beck Morris (1979, pp. 313-56). He points our that apart from the choice of deflators the more important choice is that of the index number to be constructed—Laspeyre's index or Paasche index. He argues that while there is room for disagreement over the best method of deflating a value series, there cannot be disagreement over the use of appropriate deflators. For a detailed procedure for deflat-

ing the expenditure series, one may look into two recent works: Thompson, J.R. (1968) and Bird, R.M. (1970).

4. For a similar procedure, see Pryor, F.L. (1968).

5. Likewise, the consumer price index is not suitable for deflating government consumption expenditure.

6. Both indices are given in Appendix Table A. 2.

7. Not all the purchases made by the government are routed through the DGS&D. A sizeable portion of the purchases of the government are undertaken by the departments themselves under the delegation of financial powers to the different departments by the Finance Ministry. (Vide *Delegation of Financial Powers Rules 1978*, Annexure V).

8. See for example, Peacock and Wiseman (1967), Andic, S. and Veverka, J. (1964), Musgrave, R.A. (1969), O'Donoghue, M. and Tait, A.A. (1968).

9. See for example, Gupta, S.P. (1967, 1968) Pryor, F.L. (1968) and Pluta, J.E. (1974).

10. See Diamond, J. (1977), OECD (1978), Beck Morris (1976,1979), Heller, P.S. (1980), and Lall, S. (1969).

11. It must be noted that estimates at market prices can be somewhat misleading. For, indirect taxes (less subsidies) generally fall much more heavily on personal consumption than on the goods and services brought by the government. That is why, perhaps, some economists argue forcefully in favour of GNP at factor cost if our interest is in measuring the claim of the government on real resources. For an elaborate argument, see Wilson, T. (1976).

12. For an elaborate argument see Peacock, A.T. and Wiseman, J. (1967) and Wilson, T. (1976).

3. *Growth of Government Expenditure*

Introduction

AN attempt is made in this chapter to trace the growth of government expenditure[1] in nominal and real terms. Analysis is made also in terms of expenditure per head of population as well as expenditure-GNP ratio. Just as changes in prices affect continuously the growth of government expenditure, changes in population and development (per capita GNP) also influence the growth of government expenditure. The reason for considering population as an important factor influencing expenditure is that with an increase in population, the demand for governmental services also would grow. A given level of services may no longer be sufficient for an increased level of population. Perhaps for this reason, many studies have considered population as a "permanent" factor influencing the growth of government expenditure. Equally important is the factor "economic development" in influencing the growth of government expenditure. As the level of development increases, new forms of consumption will arise and the government-financed communal consumption will also increase. It is expected that as the level of GNP rises, the proportion of different governmental services—education, health, transport, electricity, etc., in respect of which government provision may be efficient—to GNP would also grow. This has been so in the findings of most of the empirical studies. But under normal circumstances, an increased level of development should bring a reduction in the proportion of government expenditure. In the words of Peacock and Wiseman (1967, p. 22), "as the general level of individual income rises, dependence upon the State for the relief of extreme poverty and distress ought to diminish in importance." But this corollary may not be valid in India; the level of service is so low that even with an increase in the level of GNP, the provision of services by government might be called for.

Government Expenditure in Nominal Terms

Government expenditure has grown tremendously in nominal terms from Rs. 504 crore in 1950-51 to Rs. 14986 crore in 1977-78—an increase of roughly 30 times during the period of just 28 years. The growth of expenditure, however, was not uniform throughout the whole period. It increased at the average compound growth rate of 15.96 per cent during 1950-51 to 1959-60, 16.67 per cent during 1959-60 to 1965-66, 3.44 per cent during 1965-66 to 1968-69 and 14.72 per cent during 1968-69 to 1977-78. Table 3.1 and Chart 3.I show the growth of expenditure clearly. It can be seen that there are four phases of growth: (i) the period of steady growth, 1950-51 to 1959-60; (ii) the period of rapid growth, 1959-60 to 1965-66; (iii) the period of slump, 1965-66 to 1968-69 and (iv) the period of rapid growth 1968-69 to 1977-78. It is possible to explain these phases in terms of occurrence of wars, commitments of the government (planning) to provide services and the acceptance of socialist pattern of society. But such an explanation would be of little value since a significant portion of the rise in expenditure may be on account of "permanent" factors —prices, population and income. Any meaningful explanation of the growth of expenditure should take account of 'permanent' factors. Chapter 4 is devoted to this purpose. Our concern here is to see how government expenditure has grown when the influence of prices and population is removed and how the expenditure ratios have moved in nominal and real terms.

Government Expenditure in Real Terms
(at Constant 1970-71 Prices)

In clear contrast to the growth in nominal terms, government expenditure in real terms (i.e., when the influence of price changes is removed) increased at a slower pace—8½ times only as against 30 times in nominal terms during 1950-51 to 1977-78. At constant 1970-71 prices, expenditure which was Rs. 1022 crore in 1950-51 increased to only Rs. 8706 crore in 1977-78 (Table 3.2). The four phases seen above display a different growth pattern in real terms. For example, while expenditure in nominal terms increased at the average compound growth rate of

CHART 3.I

Indexes of Central Government Expenditure and Gross National Product at Current Prices (1950-51 to 1977-78)

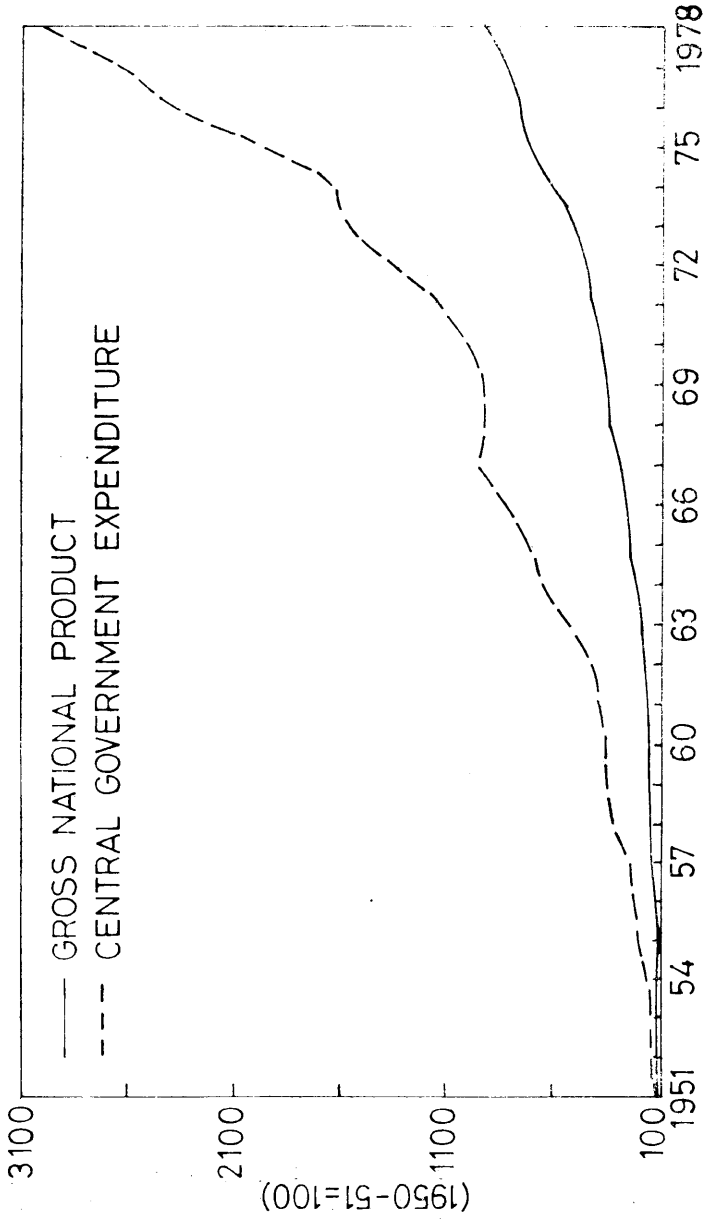


TABLE 3.1

Central Government Expenditure at Current and Constant 1970-71 Prices (1950-51 to 1977-78)

Year	At current prices		At 1970-71 prices		As per cent of GNP	
	Total expenditure (Rs. crore)	Per head of population (Rs.)	Total expenditure (Rs. crore)	Per head of population (Rs.)	At current prices	At 1970-71 prices
	(1)	(2)	(3)	(4)	(5)	(6)
1950-51	503.70	14.03	1022.09	28.47	5.22	5.55
1951-52	610.10	16.72	1194.61	32.73	6.04	6.31
1952-53	585.10	15.73	1152.06	30.97	5.94	5.90
1953-54	661.00	17.44	1282.16	33.83	6.24	6.18
1954-55	920.50	23.85	1886.48	48.87	9.40	8.75
1955-56	974.50	24.80	1961.75	49.92	9.37	8.79
1956-57	1117.50	27.87	2111.85	52.66	9.33	8.99
1957-58	1551.00	37.92	2906.69	71.07	12.79	12.47
1958-59	1639.20	39.52	2896.80	69.30	12.05	11.51
1959-60	1709.30	40.12	2983.24	70.03	12.09	11.60
1960-61	1805.70	41.61	3079.51	70.96	12.08	11.35
1961-62	2039.20	45.93	3399.86	76.57	13.84	12.05
1962-63	2532.50	55.78	4069.51	89.64	14.90	14.04

TABLE 3.1 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1963-64	3206.60	69.11	4785.36	103.13	16.41	15.60
1964-65	3488.90	73.61	4907.74	103.54	15.24	14.89
1965-66	3993.60	82.34	5195.24	107.12	16.68	16.48
1966-67	4665.40	94.25	5415.17	109.40	17.01	17.14
1967-68	4497.20	88.88	4866.74	96.18	14.04	14.24
1968-69	4525.80	87.37	4854.06	93.71	13.70	13.72
1969-70	4924.70	93.09	5097.39	96.36	13.46	13.53
1970-71	5576.60	103.08	5576.60	103.08	13.90	13.90
1971-72	6709.70	121.11	6369.47	114.97	15.52	15.52
1972 73	7849.30	138.68	6853.08	121.08	16.45	16.85
1973-74	8130.80	140.43	6198.20	107.05	13.81	14.65
1474-75	9784.90	165.57	6191.30	104.76	14.06	14.38
1975-76	12036.50	199.28	7612.68	126.04	16.35	15.98
1976-77	13150.10	213.48	7931.47	128.76	16.56	16.52
1977-78	14985.60	238.24	8705.84	138.41	16.86	16.75

TABLE 3.2

Compound Growth Rate of Central Government Expenditure at Current and Constant 1970-71 Prices for Selected Periods (1950-51 to 1977-78)

(Percentage per annum)

	1950-51 to 1977-78	*1950-51 to 1959-60*	*1959-60 to 1965-66*	*1965-66 to 1968-69*	*1968-69 to 1977-78*
	(1)	(2)	(3)	(4)	(5)
I. *Government Expenditure*					
Total					
In nominal terms	13.04	15.96	16.67	3.44	14.72
In real terms (at constant 1970-71 prices)	7.59	14.27	11.06	3.06	6.07
Per head of population					
In nominal terms	10.67	13.76	14.15	1.20	12.26
In real terms (at constant 1970-71 prices)	5.34	12.11	8.67	5.16	3.79
II. *Gross National Product*					
Total					
In nominal terms	9.15	4.33	9.90	11.84	12.33
In real terms (at constant 1970-71 prices)	3.77	3.88	3.95	4.34	3.88
Per head of population					
In nominal terms	6.87	2.36	7.53	9.42	9.92
In real terms (at constant 1970-71 prices)	1.60	1.92	1.71	2.07	1.65

15.96 per cent, 16.67 per cent, 3.44 per cent and 14.72 per cent during 1950-51 to 1959-60, 1959-60 to 1965-66, 1965-66 to 1968-69 and 1968-69 to 1977-78, respectively, expenditure in real terms increased at the average compound growth rate of 14.27 per cent, 11.06 per cent, 3.06 per cent, and 6.07 per cent, respectively, during the same periods. It is clear that the periods of rapid growth, 1959-60 to 1965-66 and 1968-69 to 1977-78, are not truly the periods of rapid growth. Instead, the period 1950-51 to 1959-60 has turned out to be the period of rapid growth and the period 1968-69 to 1977-78 to be the period of slow growth. Much of the growth in the government expenditure since 1968-69 is only on account of inflation. A comparison of Chart 3.II with Chart 3.I indicates the difference between the growth of expenditure in nominal and real terms. The differences in growth rates are brought out more pointedly in semi-log form in diagram Chart 3. III.

Government Expenditure Per Head of Population in Real Terms

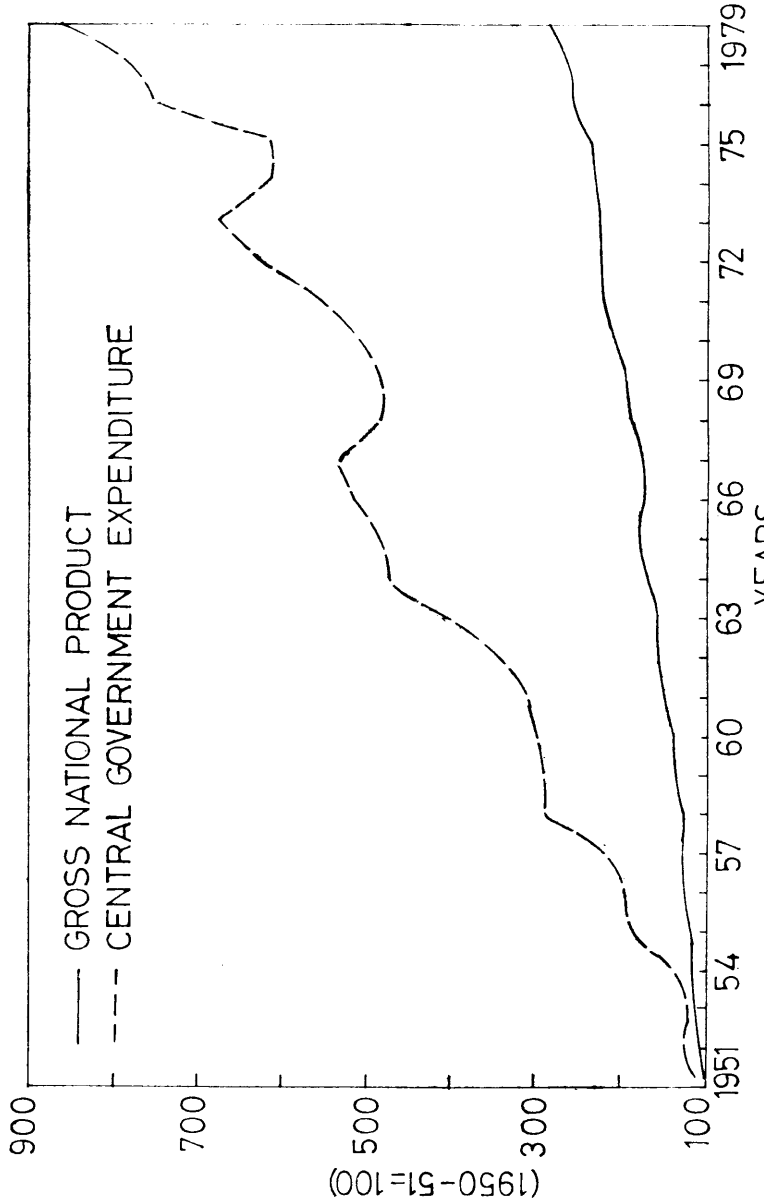
As has been pointed out earlier, population is another important permanent factor influencing the growth of government expenditure. It can be seen from Table 3.1 that expenditure per capita in real terms increased by five times only as against total expenditure in real terms by 8½ times and expenditure in nominal terms by 30 times. The per capita government expenditure in real terms (at 1970-71 prices) increased from Rs 28.47 in 1950-51 to Rs 70.96 in 1960-61, Rs 103-08 in 1970-71 and Rs 138.41 in 1977-78.

Government Expenditure in Relation to GNP

Just as population is a factor that influences the growth of government expenditure, so also is community output. As has been mentioned earlier, income is another important factor that influences government expenditure ratio. The Wagnerian hypothesis is one of the several hypotheses built around this factor. Our concern here is not to test the validity of the Wagnerian hypothesis, but simply to observe whether government expenditure is increasing in proportion to national income. Table 3.2 shows the trend of the ratio of government

CHART 3.II

Indexes of Central Government Expenditure and Gross National Product at 1970-71 Prices (1950-51 to 1977-78)



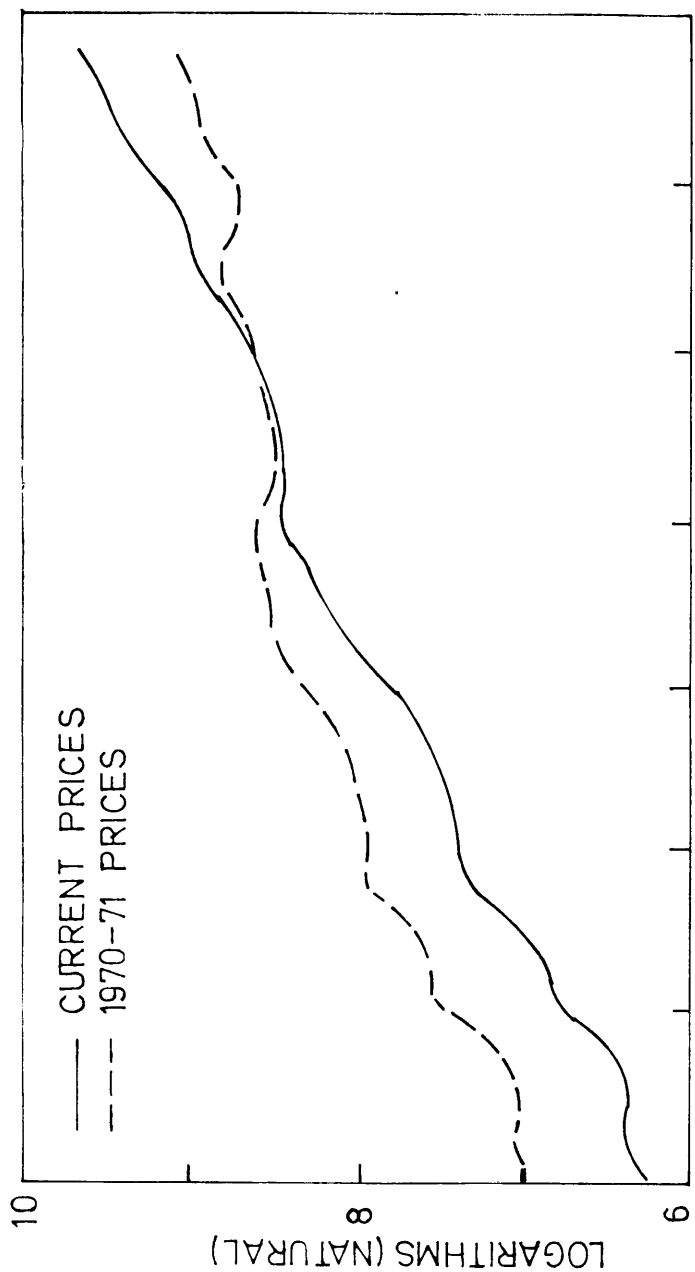


CHART 3.III
Trends in Central Government Expenditure
1951 to 1979

expenditure to GNP in nominal as well as real terms. Although there is not much difference between the expenditure ratios in nominal and real terms, it can be seen that the expenditure ratio in nominal terms moved slightly faster than in real terms. Taking the expenditure ratios in real terms for our purpose, it can be said that the expenditure ratio increased by three times during the period 1950-51 to 1977-78. Thus *in real terms*, government expenditure has increased much faster than have both population and national product.

It is interesting to note that while expenditure in nominal terms increased by 30 times, expenditure in real terms (i.e., when the effect of price change is removed) increased by 8.5 times, expenditure per head of population (i.e., when effect of population is removed) increased by 4.8 times and expenditure in relation to community output (i.e., to GNP) increased by 3 times.

One might wish to find out the relative contribution of each of the factors—prices, population and per capita income in real terms—to the growth of government expenditure. While we attempted to find an answer to this question, we have not entirely succeeded in quantifying their contribution since many non-economic factors might have contributed to the growth of government expenditure. But quantifying the contributions of the known factors at least must be made, howsoever rough it might be, if our analysis has to be of some use to policy making.

Accordingly, an attempt is made here to quantify the contribution of (i) changes in prices, (ii)changes in the magnitude of goods and services purchased and in real transfers (including loans), (iii) changes in the number of employees in the Central government, (iv) changes in the real wages and (v) changes in nominal wages given to Central government employees as inflation adjustment. The first two are assumed to influence the growth of government expenditure other than the expenditure on wages and salaries while the last three are assumed to influence the growth of government expenditure on wages and salaries.

Quantification of the contribution of (i) and (ii) has been carried out with respect to commodities and services, gross

capital formation, current transfers, capital transfers and financial investments and loans. The equation used is as follows:

$$E_N = \frac{P}{100} \cdot E_R$$

$$\triangle E_N = \frac{P_t}{100}\left(E_{Rt} - E_{Rt-1} \right) + \frac{E_{Rt}}{100}\left(P_t - P_{t-1} \right)$$

where

E_R = real expenditure
E_N = nominal expenditure
P = price index.

Strictly speaking, the above formula gives correct answers only when the time intervals considered and the relative changes of the variables are very small. Hence the relative contributions of volume increase and price increase to the total increase in expenditure that we have derived through the use of the formula are only approximations. The contributions of the two factors to the increase in expenditure during the period 1950-51 to 1965-66 and to that in the period 1966-67 to 1977-78 are given in Table 3.3.

During the period 1950-51 to 1965-66, in regard to goods and services (on current account), the relative contributions of volume increase and price rise were almost equal (49 and 51 per cent) and in regard to capital formation, equal; in regard to transfers, the contribution of volume increase has formed the major part of the increase. By contrast, during the period 1966-67 to 1977-78, much the greater part of the increase in expenditure was accounted for by the price rise: the increase in the volume of goods and services expenditure contributed only 18 per cent, that of capital formation 1.3 per cent and that of loans and investments 22 per cent. The shares of volume increase were higher in the case of transfers but still less than 40 per cent. If we take all the five components together, it is seen that during the first period considered 60.9 per cent of the increase in the five components of expenditure was due to the increase in real expenditure and 39.1 per cent was reflective of price rise. On the other hand, during the second period, as much as 73.3 per cent of the increase in nominal expenditure was reflective of price rise and only 26.7 per cent represented the increase in real

TABLE 3.3

Central Government Expenditure—Decomposition of Growth into Price and Real Components: 1950-51 to 1965-66 and 1966-67 to 1977-78

(Rs. crore)

	1950-51 to 1965-66			*1966-67 to 1977-78*		
	Change in real expenditure	*Change due to price rise*	*Total change*	*Change in real expenditure*	*Change due to price rise*	*Total change*
	(1)	(2)	(3)	(4)	(5)	(6)
1. Commodities and services	230.8	244.3	475.1	206.4	942.6	1149.0
	(48.6)	(51.4)	(100)	(17.9)	(82.1)	(100)
2. Gross capital formation	221.3	219.0	440.3	7.8	599.2	607.0
	(50.2)	(49.8)	(100)	(1.3)	(98.7)	(100)
3. Current transfers	410.0	232.9	642.9	1320.2	2303.8	3624.0
	(63.8)	(36.2)	(100)	(36.4)	(63.6)	(100)
4. Capital transfers	70.4	55.5	125.9	204.5	408.4	612.9
	(55.9)	(44.1)	(100)	(33.4)	(66.6)	(100)
5. Financial investments and loans	949.6	456.8	1406.4	662.3	2347.9	3010.2
	(67.5)	(32.5)	(100)	(22.0)	(78.0)	(100)

Note: Figures in parentheses are percentage shares of the components in total change.

expenditure. Thus the greater part of the additional resources mobilised by the Central government went to maintain the real value of the base-year expenditure in the face of price rise.

We have so far dealt with the relative contributions of volume increase and price increases to the total increase in expenditure on goods and services, transfers and financial investments. We shall now deal with wages and salaries. Since we do not have the number of defence services personnel, we shall exclude wages and salaries under the head "Defence". Table 3.4 shows wages and salaries of the Civil Departments (excluding Departmental Undertakings) in 1960-61 and 1977-78 and the increase between the two years. Alongside are shown the employment in Civil Departments and the consumer price index in the two years and their increases. The last row gives the same information in relation to the nominal wage rate.

TABLE 3.4

Increases in Wages and Salaries, Employment, Price and Nominal Wages*
(1960-61 to 1977-78)

	1960-61	*1977-78*	*Increase*
	(1)	(2)	(3)
1. Wages and Salaries (Rs. crore)	129.39	1146.30	1016.91
2. Employment** (lakh nos.)	6.07	12.16	6.09
3. Prices*** (1948-49=100)	124	390	214.52 per cent
4. Nominal wage rates (Rs./annum)	2131.63	9426.81	7295.18

* Civil Departments only
** As at the beginning of the year
*** Consumer Price Index

On the basis of the above figures, we have worked out the relative contributions of employment, real wage rate and inflation to the total increase in the expenditure on wages and salaries. They are as follows:

	(Rs. crore)
a. Due to increase in employment	129.82
b. Due to increase in real wage rate	282.05
c. Due to inflation	605.04

It is thus seen that the major part (59 per cent) of the increase in wages and salaries expenditure was accounted for by inflation adjustment (whether intended or not). Of the three factors, the smallest percentage of the increase was accounted for by increase in employment. The real wage at 1960-61 prices increased from Rs. 2131.63 per annum in that year to Rs. 2993.0 in 1977-78; the share of the increase contributed by the rise in real wages (28 per cent) is higher than that contributed by the increase in employment (13 per cent).

NOTES

1. Since the study is largely devoted to an analysis of Central government expenditure, we simply refer to "government expenditure". Unless otherwise specified, or the context so requires, the term is to be taken to mean "Central government expenditure."

4. *The Structure of Government Expenditure*

Introduction

A proper understanding of the demands for governmental expenditure requires close examination of its components and their behavioural patterns over time. Hence, an attempt is made in this chapter to study the composition of government expenditure along with the changes in it during 1950-51 to 1977-78.

Classification

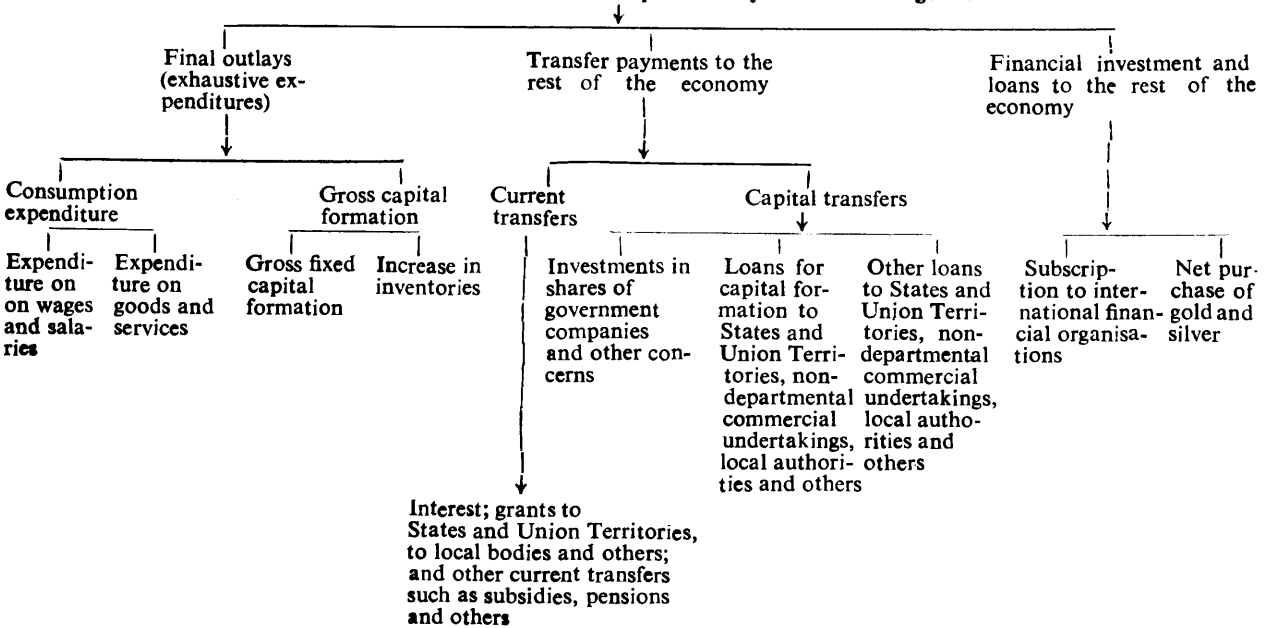
A basic requirement for the analysis of the composition of government expenditure is its classification. Classification of government expenditure may be attempted in more than one way depending upon the purpose in hand. It may be done (i) by homogeneity or in terms of common characteristics or intended purpose or effects, (ii) by nodality, i.e., in terms of geographic characteristics and (iii) by programme or policy orientation, i.e., primarily in terms of administrative or political coherence (and institutions). Bird (1970, pp. 142-3) favours classification in terms of all the three categories; Musgrave (1969, pp. 73-5) prefers economic characteristics—transfer payments, capital formation, etc.; Pryor (1965) emphasises functional categories—education, health, defence, etc.; and Peacock and Wiseman (1967, pp. 62-95) choose economic and functional classification. Much also depends upon availability of data. As far as we are concerned, we have classified government expenditure by economic and functional categories because our purpose is to examine the changing composition of expenditure in both economic and functional terms.

Economic Categories

Following the classification adopted by the Ministry of Finance, Government of India, we have classified Central government expenditure into three main categories: (i) final outlays, (ii) transfer payments to the rest of the economy and (iii) financial

CHART 4.I

Structure of Central Government Expenditure by Economic Categories



investments and loans to the rest of the economy. Each of these categories consists of sub-categories, as can be seen from Chart 4.I.

Final outlays refer to the direct demand for goods and services for consumption and capital formation. In a system of national accounts, these final outlays are on par with the consumption expenditure and capital formation by the other sectors of the economy. Transfer payments and financial investments and loans to the rest of the economy are the disbursements intended to supplement current and capital receipts of the other sectors. From the analysis point of view, distinction, therefore, has to be drawn between final outlays and the other two, although all three are expenditures out of budgetary resources. Table 4.1 shows the composition of expenditure at current prices by these categories. It can be seen that although final outlays increased from Rs. 314.80 crore in 1950-51 to Rs. 4785.40 crore in 1977-78, their percentage share in total expenditure of the Central government went down from 62.50 per cent in 1950-51 to 31.93 per cent in 1977-78. The share of transfer payments and financial investments and loans increased significantly. This may mean that the expenditure policy of the government has been towards decentralisation of spending on goods and services. Let us look, a little closely, at the growth of final outlays, transfer payments and financial investments and examine the reasons for fluctuations in their growth.

Final Outlays

As shown in Chart 4.I, final outlays consist of (i) consumption expenditure and (ii) gross capital formation. They increased only by four times in real terms as against 15 times in nominal terms. Table 4.2 shows that final outlays in real terms grew from Rs. 659.66 crore in 1950-51 to Rs. 2756.36 crore in 1977-78 as against Rs. 314.80 crore in 1950-51 to Rs. 4785.40 crore in 1977-78 in nominal terms (Table 4.1). Hence the compound growth rate in real terms was far less (6.17 per cent) than that in nominal terms (11.31 per cent). Per capita final outlays in real terms grew at a much slower pace: they increased by 2.6 times (from Rs. 18.37 in 1950-51 to Rs. 43.82 in 1977-78). What must be the reasons for this slow growth rate? The main reason

TABLE 4.1

Central Government Expenditure by Economic Categories: At Current Prices (1950-51 to 1977-78)

Year	*Final outlays*		*Transfer payments*		*Financial investments and loans to the rest of the economy*		*Total Central government expenditure*	
	Absolute (Rs. crore)	*As per cent of total*	*Absolute (Rs. crore)*	*As per cent of total*	*Absolute (Rs. crore)*	*As per cent of total*	*Absolute (Rs. crore)*	*As per cent of total*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1950-51	314.80	62.50	116.90	23.21	72.00	14.29	503.70	100.00
1951-52	337.60	55.34	179.20	29.37	93.30	15.29	610.10	100.00
1952-53	306.60	52.40	154.00	26.32	124.50	21.28	585.10	100.00
1953-54	333.00	50.38	148.50	22.47	179.50	27.16	661.00	100.00
1954-55	454.60	49.39	198.90	21.61	267.00	29.01	920.50	100.00
1955-56	421.80	43.28	251.30	25.79	301.40	30.93	974.50	100.00
1956-57	563.90	50.46	245.20	21.94	308.40	27.60	1117.50	100.00
1957-58	725.90	46.80	311.40	20.08	513.70	33.12	1551.00	100.00
1958-59	736.00	44.94	335.10	20.44	567.50	34.62	1639.20	100.00
1959-60	639.20	37.40	429.50	25.13	640.60	37.48	1709.30	100.00
1960-61	740.50	41.01	495.20	27.42	570.00	31.57	1805.70	100.00
1961-62	820.90	40.26	531.10	26.04	687.20	33.70	2039.20	100.00
1962-63	1092.30	43.13	623.60	24.62	816.60	32.24	2532.50	100.00

TABLE 4.1 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1963-64	1554.60	48.48	664.70	20.73	987.30	30.79	3206.60	100.00
1964-65	1603.80	45.97	778.70	22.32	1106.40	31.71	3488.90	100.00
1965-66	1629.50	40.80	885.70	22.18	1478.40	37.02	3993.60	100.00
1966-67	1712.30	36.70	1195.60	25.63	1757.50	37.67	4665.40	100.00
1967-68	1746.90	38.84	1249.20	27.78	1501.10	33.38	4497.20	100.00
1968-69	1661.50	36.71	1176.10	25.99	1688.20	37.30	4525.80	100.00
1969-70	1870.00	37.97	1354.70	27.51	1700.00	34.52	4924.70	100.00
1970-71	2188.70	39.25	1432.40	25.69	1955.50	35.07	5576.60	100.00
1971-72	2651.90	39.52	2006.50	29.90	2051.30	30.57	6709.70	100.00
1972-73	2939.20	37.45	2280.10	29.05	2630.00	33.51	7849.30	100.00
1973-74	3094.80	38.06	2415.80	29.71	2620.20	32.23	8130.80	100.00
1974-75	4094.20	41.84	2824.80	28.87	2865.90	29.29	9784.90	100.00
1975-76	4653.50	38.66	3553.40	29.52	3829.60	31.82	12036.50	100.00
1976-77	4717.70	35.88	4446.60	33.81	3985.80	30.31	13150.10	100.00
1977-78	4785.40	31.93	5432.50	36.25	4767.70	31.82	14985.60	100.00

Note: Totals may not tally due to rounding off.

TABLE 4.2

Composition of Final Outlays at 1970-71 Prices (1951 to 1978)

(Rs. crore)

Year	Consumption expenditure			Gross capital formation			Final outlays
	Wages and salaries	Commodities and services	Total consumption expenditure (1 + 2)	Gross fixed capital formation	Increase or decrease in inventories	Total gross capital formation (4 + 5)	(3 + 6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950-51	229.31	242.01	471.32	186.93	1.41	188.34	659.66
1951-52	230.62	217.29	447.91	198.41	33.95	232.36	680.27
1952-53	234.93	210.32	445.25	190.35	—37.31	153.04	598.29
1953-54	248.83	196.04	444.87	236.95	—46.90	190.04	634.91
1954-55	253.01	195.64	448.65	281.46	137.58	419.04	867.69
1955-56	255.14	194.43	449.57	380.52	—52.98	327.54	771.11
1956-57	274.43	236.95	511.38	482.87	28.48	511.35	1022.73
1957-58	300.29	342.67	642.96	553.68	121.57	675.25	1318.21
1958-59	307.28	337.46	644.74	517.55	66.97	584.52	1229.26
1959-60	311.70	311.44	623.14	478.65	—58.83	419.81	1042.95
1960-61	351.06	281.38	632.44	510.65	9.13	519.78	1152.22
1961-62	349.29	336.23	685.52	539.74	19.06	558.79	1244.31
1962-63	440.60	497.09	937.69	672.74	11.40	684.14	1621.83

TABLE 4.2 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1963-64	543.89	822.22	1366.11	752.41	80.11	832.53	2198.64
1964-65	600.92	724.80	1325.72	799.91	67.32	867.24	2192.96
1965-66	622.35	747.07	1369.42	747.79	—39.08	708.70	2078.12
1966-67	667.95	724.59	1392.54	615.73	— 7.66	608.07	2000.61
1967-68	692.09	690.44	1382.53	525.20	13.49	538.69	1921.22
1968-69	713.40	752.93	1466.33	506.43	—195.03	311.40	1777.73
1969-70	748.07	775.50	1523.57	460.56	— 39.82	420.74	1944.31
1970-71	839.20	830.20	1669.40	485.00	34.30	519.30	2188.70
1971-72	956.91	999.91	1956.82	535.37	29.60	564.97	2521.79
1972-73	1018.01	1054.68	2072.69	581.02	10.75	591.77	2664.46
1973-74	1064.13	893.38	1957.51	548.50	54.66	603.16	2560.67
1974-75	1185.10	737.00	1922.10	502.66	247.36	750.02	2672.12
1975-76	1289.86	896.79	2186.65	538.78	144.51	683.29	2869.94
1976-77	1251.67	978.29	2229.96	607.62	12.32	619.94	2849.90
1977-78	1204.72	934.09	2138.81	623.85	—6.30	617.55	2756.36

Note: Totals and sub-totals may not tally due to rounding off.

TABLE 4.3

Growth Rates of Components of Final Outlays at Current and 1970-71 Prices

(Per cent per annum)

Period	*Consumption expenditure*		*Gross capital formation*		*Final outlays*	
	At current prices	*At 1970-71 prices*	*At current prices*	*At 1970-71 prices*	*At current prices*	*At 1970-71 prices*
	(1)	(2)	(3)	(4)	(5)	(6)
1950-51 to 1977-78	12.17	7.44	9.50	3.61	11.31	6.17
1950-51 to 1959-60	7.69	4.54	18.76	15.53	11.31	8.55
1960-61 to 1969-70	14.59	9.69	0.39	(—)4.93	10.13	4.79
1970-71 to 1977-78	12.41	3.06	13.43	2.81	12.66	3.01

seems to be the sluggish growth in gross capital formation, an important component of final outlays, during the 1970s and negative growth rate during the 1960s; for example, gross capital formation in real terms increased at the compound growth rate of (—) 4.93 per cent and 2.81 per cent, respectively, during 1960s and 1970s as against the growth in consumption expenditure of 9.69 per cent and 3.06 per cent, respectively, during the same periods (Table 4.3).

Consumption Expenditure. It accounts for more than approximately three-fourth of final outlays. It consists of (a) wages and salaries and (b) goods and services. In real terms it increased by 4.5 times (i.e., from Rs. 471.32 crore in 1950-51 to Rs. 2138.81 crore in 1977-78) (Table 4.2) as against 15.7 times in nominal terms (i.e., from Rs. 234.70 crore in 1950-51 to Rs. 3678.20 crore in 1977-78[1]. In per capita real terms, it increased only by 2.5 times (i.e., from Rs. 13.13 in 1950-51 to Rs. 34.00 in 1977-78) (Table 4.3). Even its components—wages and salaries and commodities and services—grew sluggishly in per capita real terms. For example, per capita wages and salaries (in real terms) increased from Rs. 6.39 in 1950-51 to Rs. 8.09 in 1960-61, Rs. 15.51 in 1970-71 and Rs. 19.15 in 1977-78; on the other hand, per capita expenditure on commodities and services fluctuated. It decreased from Rs. 6.74 in 1950-51 to Rs. 6.48 in 1960-61 and increased to Rs. 15.35 in 1970-71; again it decreased to Rs. 14.85 in 1977-78[2]. The growth of per capita expenditure on commodities and services is somewhat less steep than that of expenditure on wages and salaries (in real terms). We need to determine now what proportion of GNP was consumed by each of the components of consumption expenditure and how much they have grown during the period under study.

Table 4.4 shows the ratios of wages and salaries, commodities and services and consumption expenditure to GNP at constant 1970-71 prices. What is remarkable is that during the past 14 years (i.e., from 1963-64) the ratio of consumption expenditure remained only around 4 per cent. However, the ratio of wages and salaries showed a slight increase, while that of commodities and services showed a slight decline, so that on balance the ratio of consumption expenditure to GNP remained roughly the same.

TABLE 4.4

Consumption Expenditure as percentage of GNP: at 1970-71 Prices (1950-51 to 1977-78)

Year	*As percentage of GNP*		
	Wages and salaries	*Commodities and services*	*Total consumption expenditure*
	(1)	(2)	(3)
1950-51	1.24	1.31	2.56
1951-52	1.22	1.15	2.36
1952-53	1.20	1.08	2.28
1953-54	1.20	0.94	2.14
1954-55	1.17	0.91	2.08
1955-56	1.14	0.87	2.01
1956-57	1.17	1.01	2.18
1957-58	1.29	1.47	2.76
1958-59	1.22	1.34	2.56
1959-60	1.21	1.21	2.42
1960-61	1.29	1.04	2.33
1961-62	1.24	1.19	2.43
1962-63	1.52	1.71	3.23
1963-64	1.77	2.68	4.45
1964-65	1.82	2.20	4.02
1965-66	1.97	2.37	4.34
1966-67	2.11	2.29	4.41
1967-68	2.03	2.02	4.05
1968-69	2.02	2.13	4.14
1969-70	1.99	2.06	4.04
1970-71	2.09	2.07	4.16
1971-72	2.33	2.44	4.77
1972-73	2.50	2.59	5.10
1973-74	2.52	2.11	4.63
1974-75	2.75	1.71	4.46
1975-76	2.71	1.88	4.59
1976-77	2.61	2.04	4.65
1977-78	2.32	1.80	4.12

Note: Totals may not tally due to rounding off.

It is easy to see that there are two distinct periods in the growth of consumption expenditure:

(i) 1950-51 to 1962-63 and (ii) 1963-64 to 1977-78. Upto 1962-63,the ratio of consumption expenditure to GNP remained around 2.5 per cent and thereafter spurted to 4.50 per cent. One of the important reasons for this sharp increase seems to be the shift in the level of defence expenditure. In the early 1960s defence expenditure had been pushed up suddenly on account of wars with China and Pakistan. As defence expenditure is treated as consumption expenditure, it is not surprising that consumption expenditure had shown rapid growth after 1963-64. Further, the magnitude of defence expenditure never decreased in the later period, due to one kind of threat or another.

Gross capital formation. Let us look at the other component of final outlays, namely, gross capital formation. It consists of gross fixed capital formation and changes in inventories. Its proportion to total Central government expenditure has been the highest during the Second Five Year Plan, and the lowest during the Fourth Five Year Plan (Table 4.5). As of 1977-78, it constituted 7.39 per cent and 7.09 per cent of the Central government expenditure at current and constant 1970-71 prices, respectively. It was 18.50 per cent (average) during the Second Five Year Plan, 17.05 per cent (average) during the Third Five Year Plan, but declined to 8.89 per cent (average) during the Fourth Five Year Plan (at current prices). The decreasing trend, as percentage of the Central government expenditure, should not be construed as a decrease in absolute terms. Whether there was a decreasing trend in consumption expenditure, should be considered either in terms of per capita or in terms of ratio to GNP or in terms of both.

The real per capita gross capital formation did not undergo much change during the period under study. Nor has it changed significantly as a ratio of GNP at constant 1970-71 prices (see Statistical Appendix Tables A.5 and A.7). A glance at Table 4.5 will show that its important component—gross fixed capital formation—has stagnated during the period under study; the only exception being the latter half of the Second Five Year Plan and the whole of the Third Five Year Plan. Nor have its sub-components, namely buildings and other construction and machinery and equipment undergone change (see Table 4.6).

TABLE 4.5

Percentage Distribution of Gross Capital Formation in Total Central Government Expenditure at Current and 1970-71 Prices
(1950-51 to 1977-78)

(Per cent)

Year	GROSS CAPTIAL FORMATION					
	At current prices			*At 1970-71 prices*		
	Gross fixed capital formation	*Increase in inventories*	*Total gross capital formation (1 + 2)*	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation (4 + 5)*
	(1)	(2)	(3)	(4)	(5)	(6)
1950-51	15.78	0.12	15.90	18.29	0.14	18.43
1951-52	14.75	2.52	17.28	16.61	2.84	19.45
1952-53	14.56	(—)2.85	11.71	16.52	(—)3.24	13.28
1953-54	16.28	(—)3.22	13.05	18.48	(—)3.66	14.82
1954-55	14.58	7.13	21.71	14.92	7.29	22.21
1955-56	18.20	(—)2.53	15.67	19.40	(—)2.70	16.70
1956-57	20.94	1.23	22.17	22.86	1.35	24.21
1957-58	17.32	3.80	21.13	19.05	4.18	23.23
1958-59	17.54	2.27	19.81	17.87	2.31	20.18
1959-60	15.80	(—)1.94	13.86	16.04	(—)1.97	14.07
1960-61	16.76	0.30	17.03	16.58	0.30	16.88
1961-62	16.25	0.57	16.83	15.88	0.56	16.44

TABLE 4.5 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1962-63	16.78	0.28	17.06	16.53	0.28	16.81
1963-64	15.55	1.66	17.21	15.72	1.67	17.40
1964-65	15.80	1.33	17.13	16.30	1.37	17.67
1965-66	13.75	(−)0.72	13.03	14.39	(—)0.75	13.64
1966-67	10.86	(—)0.14	10.72	11.37	(—)0.14	11.23
1967-68	10.13	0.26	10.39	10.79	0.28	11.07
1968-69	9.91	(—)3.82	6.10	10.43	(—)4.02	6.42
1969-70	8.74	(—)0.76	7.98	9.04	(—)0.78	8.25
1970-71	8.70	0.62	9.31	8.70	0.62	9.31
1971-72	8.44	0.47	8.90	8.41	0.46	8.87
1972-73	8.47	0.16	8.63	8.48	0.16	8.64
1973-74	8.75	0.87	9.62	8.85	0.88	9.73
1974-75	8.41	4.14	12.54	8.12	4.00	12.11
1975-76	7.89	2.12	10.01	7.08	1.90	8.98
1976-77	8.29	0.17	8.45	7.66	0.16	7.82
1977-78	7.46	(—)0.08	7.39	7.66	(—)0.07	7.59

Note: Totals may not tally due to rounding off.

TABLE 4.6

Composition of Gross Capital Formation by the Central Government as Percentage of GNP at 1970-71 Prices (1950-51 to 1977-78)

(Per cent)

Year	*GROSS FIXED CAPITAL FORMATION*						
	Building and other construction			*Machinery and equipment*			*Total*
	New outlays	*Renewals and replacements*	*Total (1+2)*	*New outlays*	*Renewals and replacement*	*Total (4+5)*	*(3+6)*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950-51	0.55	0.18	0.73	0.08	0.21	0.29	1.01
1951-52	0.46	0.15	0.61	0.13	0.31	0.44	1.05
1952-53	0.42	0.14	0.56	0.09	0.33	0.42	0.98
1953-54	0.49	0.09	0.59	0.24	0.32	0.56	1.14
1954-55	0.58	0.13	0.72	0.26	0.33	0.59	1.31
1955-56	0.74	0.19	0.93	0.50	0.28	0.78	1.71
1956-57	0.97	0.24	1.22	0.64	0.20	0.84	2.05
1957-58	0.94	0.50	1.44	0.72	0.22	0.93	2.38
1958-59	0.83	0.55	1.39	0.46	0.21	0.67	2.06
1959-60	0.82	0.49	1.32	0.36	0.18	0.55	1.86
1960-61	0.91	0.45	1.36	0.36	0.16	0.52	1.88
1961-62	1.09	0.24	1.33	0.48	0.11	0.59	1.91

TABLE 4.6 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1962-63	1.28	0.30	1.59	0.61	0.12	0.73	2.32
1963-64	1.49	0.28	1.77	0.59	0.09	0.68	2.45
1964-65	1.46	0.27	1.73	0.60	0.09	0.69	2.43
1965-66	1.39	0.25	1.64	0.62	0.11	0.73	2.37
1966-67	1.22	0.19	1.41	0.40	0.14	0.54	1.95
1967-68	0.93	0.10	1.03	0.34	0.16	0.50	1.54
1968-69	0.84	0.15	0.98	0.33	0.12	0.45	1.43
1969-70	0.71	0.11	0.83	0.30	0.10	0.40	1.22
1970-71	0.72	0.11	0.83	0.26	0.12	0.37	1.21
1971-72	0.69	0.12	0.81	0.40	0.09	0.49	1.30
1972-73	0.73	0.16	0.89	0.40	0.14	0.54	1.43
1973-74	0.67	0.15	0.82	0.35	0.13	0.48	1.30
1974-75	0.57	0.11	0.68	0.39	0.09	0.48	1.17
1975-76	0.53	0.09	0.62	0.41	0.10	0.51	1.13
1976-77	0.61	0.10	0.71	0.47	0.09	0.56	1.27
1977-78	0.61	0.09	0.70	0.42	0.08	0.50	1.20

Note: Totals may not tally due to rounding off.

Therefore, one tends to feel that the Central government has not given due importance to capital formation.

But such a feeling merely on the basis of capital formation in the Central government is not appropriate. For, substantial disbursements are made by the Central government to the rest of the economy, namely, State governments, Union Territories, and departmental and non-departmental undertakings for building up capital assets. Therefore, to assess the expenditure on the promotion of capital formation, one should examine the capital formation that has taken place out of budgetary resources.

Gross capital formation out of budgetary resources. It can be seen from Table 4.7 that gross capital formation out of budgetary resources as a percentage of GNP, at 1970-71 prices, increased significantly from 1.53 per cent in 1950-51 to 6.31 per cent in 1977-78. Here again the maximum growth of capital formation took place during the latter half of the Second Five Year Plan and during the Third Five Year Plan. During the Fourth Five Year Plan, it slightly declined. However, while gross capital formation in the Central government remained roughly constant, capital "transfers" to the rest of the economy, i.e., grants for capital formation, loans for capital formation, investments in shares of government concerns, etc., have increased significantly. The maximum increase was in loans for capital formation and investments in shares of government concerns. Therefore, any conclusion that the Central government did not pay enough attention to build up capital assets would be unwarranted.

Transfer Payments

Transfer payments are of two types: (i) current transfers and (ii) capital transfers. Current transfers relate to grants to States, Union Territories and local authorities; interest payments; subsidies; and pensions. Capital transfers refer to grants to States, Union Territories, non-departmental undertakings, local authorities and others; gratuities and commuted value of pensions; compensation paid to displaced persons; and other capital transfers. In 1977-78, both types of transfers together accounted for 36.25 per cent of the Central government expenditure (at current prices), while current transfers accounted for 31.22 per cent and capital transfers for 5.03 per cent.

By definition, transfer payments add to the income of others and do not involve direct demands for goods and services on the part of the government. Along with taxes, they are generally taken to affect the distribution of income in the country. Such a view would have been tenable here had we been considering the combined expenditure of the Centre, States and local authorities, in which case inter-governmental transfers would have been eliminated. A large part of the transfers to the lower levels of government would have been spent on goods and services and thus would reflect demand for goods and services by the government sector. Even interest payments in the Indian context go mainly to the banking system and other financial institutions. Only the rest of the transfers going to the households would have a direct impact on income distribution. Under these circumstances, we must confine ourselves to those transfers that straightaway go to individuals or groups of individuals, e.g., subsidies and pensions. Subsidies and pensions account for 25.39 per cent of transfer payments and 9.54 per cent of total Central government expenditure (at current prices).

Interest Payments. Interest payments connote interest on the national debt excluding interest charged to departmental undertakings. But for the exclusion of interest charged to departmental undertakings, they are treated on a gross basis, i.e., no deduction is made for the interest receipts of the government. Interest payments at current prices increased from Rs. 32.00 crore in 1950-51 to Rs. 125.70 crore in 1960-61, Rs.431.60 crore in 1970-71 and Rs. 1340.10 crore in 1977-78 (Table 4.8), that is, they increased by 42 times during the study period (13 times at constant 1970-71 prices).

As a percentage of GNP at 1970-71 prices, they increased from 0.33 per cent in 1950-51 to 1.51 per cent in 1977-78. However, their share in GNP has been more than 1.00 per cent during the last 13 years of the period and the increase has been gradual. We may identify briefly those to whom interest payments have been accruing. Since a sizeable portion of the public debt is external, a good share of interest payments goes to foreign parties. As for the internal public debt, a major part of which is held by public financial institutions, the percentages of interest payments accruing to different institutions on the one

TABLE 4.7

Gross Capital Formation Out of Budgetary Resources as Per cent of GNP at 1970-71 Prices (1950-51 to 1977-78)

(Per cent)

Year	*Gross capital formation*	*Grants for capital formation*	*Loans for capital formation*	*Investment in shares of government concerns*	*Total (1+2+3+4)*
	(1)	(2)	(3)	(4)	(5)
1950-51	1.02	0.03	0.43	0.05	1.53
1951-52	1.23	0.09	0.84	0.04	2.20
1952-53	0.78	0.08	1.07	0.02	1.95
1953-54	0.92	0.11	1.37	0.04	2.44
1954-55	1.94	0.30	2.56	0.06	4.86
1955-56	1.47	0.34	2.80	0.03	4.64
1956-57	2.18	0.27	2.00	0.22	4.67
1957-58	2.90	0.17	2.55	1.21	6.83
1958-59	2.32	0.23	2.65	1.31	6.51
1959-60	1.63	0.33	3.26	0.35	5.57
1960-61	1.91	0.32	2.85	0.51	5.59
1961-62	1.98	0.34	2.99	0.54	5.85
1962-63	2.36	0.36	3.10	0.83	6.65
1963-64	2.71	0.38	3.71	0.87	7.67
1964-65	2.63	0.38	3·68	0.68	7.37
1965-66	2.25	0.49	4.30	0.58	7.62

TABLE 4.7 (Contd.)

	(1)	(2)	(3)	(4)	(5)
1966-67	1.92	0.48	3.79	0.47	6.66
1967-68	1.58	0.40	2.93	0.47	5.38
1968-69	0.88	0.35	3.25	0.61	5.09
1969-70	1.12	0.49	2.04	0.83	4.48
1970-71	1.29	0.46	2.20	0.76	4.71
1971-72	1.38	0.56	2.42	0.86	5.22
1972-73	1.45	0.58	2.89	0.63	5.55
1973-74	1.43	0.54	2.18	0.51	4.66
1974-75	1.74	0.46	2.41	0.65	5.26
1975-76	1.43	0.56	2.91	1.16	6.06
1976-77	1.29	0.51	3.22	1.12	6.14
1977-78	1.19	0.73	3.21	1.18	6.31

Note: Totals may not tally due to rounding off.

TABLE 4.8

Interest, Subsidies and Pensions at Current and 1970-71 Prices (1950-51 to 1977-78)

(Rs. crore)

Year	*Interest*		*Subsidies*		*Pensions*	
	Current prices	*1970-71 prices*	*Current prices*	*1970-71 prices*	*Current prices*	*1970-71 prices*
	(1)	(2)	(3)	(4)	(5)	(6)
1950-51	32.00	60.94	26.10	49.70	17.70	33.71
1951-52	43.60	81.72	63.50	119.03	17.70	33.18
1952-53	44.00	87.15	32.10	63.58	17.70	35.06
1953-54	46.50	91.36	7.50	14.73	17.70	34.77
1954-55	49.80	109.35	7.00	15.37	18.10	39.75
1955-56	56.20	120.47	23.50	50.38	13.60	29.15
1956-57	62.20	121.77	15.20	29.76	13.00	25.45
1957-58	73.30	140.72	55.80	107.12	13.10	25.15
1958-59	83.90	155.20	23.50	43.47	12.90	23.86
1959-60	112.30	203.89	26.00	47.20	14.30	25.96
1960-61	125.70	228.46	30.70	55.80	14.20	25.81
1961-62	142.90	254.13	33.20	59.04	18.40	32.72
1962-63	167.00	285.13	70.80	120.88	18.80	32.10
1963-64	188.90	296.45	56.70	88.98	17.60	27.62
1964-65	215.00	309.49	62.30	89.68	20.10	28.93

TABLE 4.8 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1965-66	261.90	344.65	47.50	62.51	22.60	29.74
1966-67	37.90	389.69	204.90	236.30	23.30	26.87
1967-68	3363.70	387.95	154.20	164.48	26.20	27.95
1968-69	381.50	408.76	51.00	54.64	29.30	31.39
1969-70	410.30	422.47	96.00	98.85	32.30	33.26
1970-71	431.60	431.60	94.20	94.20	44.30	44.30
1971-72	507.70	481.51	140.30	133.06	49.80	47.23
1972-73	600.30	510.89	204.60	174.13	53.60	45.62
1973-74	695.60	499.86	360.90	259.34	56.80	40.82
1974-75	783.80	485.11	419.20	259.45	94.50	58.49
1975-76	962.00	623.62	469.70	304.49	114.60	74.29
1976-77	1194.80	723.42	947.00	573.38	119.60	72.41
1977-78	1340.10	784.37	1286.80	753.18	141.80	83.00

hand and to the household sector on the other hand could be worked out on the basis of surveys of the ownership of public debt carried out by the Reserve Bank of India. However, for lack of the necessary data, it is not possible to apportion the interest accruing to the institutions and that accruing directly to households among individuals or households in different income groups. This is an interesting study which, however, we will not pursue here.

Subsidies. Subsidies are the funds disbursed in support of one commodity or another through a reduction in its cost or price; their basic objectives seem to be the promotion of some form of economic activity and improvement in the distribution of income. As of 1977-78, they constituted 8.59 per cent of the Central government expenditure, and 23.69 per cent of transfer payments (current and capital transfers) at current prices. They increased from Rs. 26.10 crore in 1950-51 to Rs. 30.70 crore in 1960-61, Rs. 94.20 crore in 1970-71 and Rs. 1286.80 crore in 1977-78 — an increase of 49 times during the study period. At constant 1970-71 prices they increased by about 15 times (Table 4.8).

As a percentage of GNP at constant 1970-71 prices, they grew from 0.27 per cent in 1950-51 to 1.45 per cent in 1977-78 (Table 4.9). Broadly speaking, the growth of subsidies was rapid during the last fifteen years (i.e., from 0.42 per cent of GNP in 1962-63 to 1.45 per cent of GNP in 1977-78). The mere fact of the increasing share of subsidies in GNP is not bad in itself. What is important is the purposes for which they have been given and to whom they have accrued. If they are extended for correcting external effects, meeting "merit" wants, helping to generate increasing returns, promoting growth and redistributing incomes, it is easy to justify them. Thus it is necessary to determine if they are being utilised for the objectives for which they are intended. Moreover, the increasing magnitude of subsidies reduces the budgetary resources available for other purposes and causes concern among policy-makers. The Sixth Five Year Plan 1980-85, therefore, observes that "it is essential to ensure that these subsidies are kept within reasonable limits in order to release resources for development"[3]. The Committee on Controls and Subsidies points out that "all subsidies should have a well defined period

of validity, say, three years and before any subsidy is extended beyond its stipulated life, a review of the costs and the benefits of the subsidy should be placed before Parliament by the Ministry/Department administering the subsidy"[4]. To ascertain whether subsidies are really promoting the purposes for which they were distributed is a separate study by itself.

TABLE 4.9

Interest, Subsidies and Pensions as Percentage of GNP at 1970-71 Prices (1950-51 to 1977-78)

(Per cent)

Year	*Interest*	*Subsidies*	*Pensions*
	(1)	(2)	(3)
1950-51	0.33	0.27	0.18
1951-52	0.43	0.63	0.18
1952-53	0.45	0.33	0.18
1953-54	0.44	0.07	0.17
1954-55	0.51	0.07	0.18
1955-56	0.54	0.23	0.13
1956-57	0.52	0.13	0.11
1957-58	0.60	0.46	0.11
1958-59	0.62	0.17	0.09
1959-60	0.79	0.18	0.10
1960-61	0.84	0.21	0.10
1961-62	0.90	0.21	0.12
1962-63	0.98	0.42	0.11
1963-64	0.97	0.29	0.09
1964-65	0.94	0.27	0.09
1965-66	1.09	0.20	0.09
1966-67	1.23	0.75	0.09
1967-68	1.14	0.48	0.08
1968-69	1.16	0.15	0.09
1969-70	1.12	0.26	0.09
1970-71	1.08	0.23	0.11
1971-72	1.17	0.32	0.12
1972-73	1.26	0.43	0.11
1973-74	1.18	0.61	0.10
1974-75	1.13	0.60	0.14
1975-76	1.31	0.64	0.16
1976-77	1.51	1.19	0.15
1977-78	1.51	1.45	0.16

TABLE 4.10

Distribution of Subsidies by Purpose at Current Prices (1965-66 to 1977-78

(Per cent)

Year	Services	Social Services			Economic services					Consump-	Total
	other than defence	Medical and public health	Other social services	Total	Agriculture	Industry	Transport and communication	Other economic services	Total	tion subsidies	subsidies
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1965-66	—	—	—	—	8.42	90.11	1.47	—	100.00	—	100.00
1966-67	—	—	—	—	21.72	33.63	0.24	—	55.59	44.41	100.00
1967-68	—	—	—	—	1.23	36.58	0.58	—	38.39	61.61	100.00
1968-69	—	—	—	—	—	89.22	3.14	0.20	92.55	7.45	100.00
1969-70	—	—	—	—	0.10	64.79	2.92	0.10	67.92	32.08	100.00
1970-71	—	—	0.32	0.32	0.11	78.56	1.70	0.21	80.57	19.11	100.00
1971-72	—	—	0.64	0.64	—	60.94	2.85	0.14	63.93	35.42	100.00
1972-73	—	0.29	0.68	0.98	—	39.59	2.15	0.10	41.84	57.18	100.00
1973-74	—	—	0.03	0.03	0.22	28.84	1.16	0.06	30.29	69.69	100.00
1974-75	—	—	—	—	—	29.10	0.48	0.02	29.60	70.40	100.00
1975-76	0.02	0.13	0.02	0.15	0.09	45.90	0.57	0.02	46.58	53.25	100.00
1976-77	—	0.14	0.13	0.26	6.33	39.73	0.24	0·01	46.30	53.43	100.00
1977-78	—	0.08	0.14	0.22	20.71	38.74	0.02	0.01	59.47	40.31	100.00

Note: Tables may not tally due to rounding off.

However, it is interesting to know for which purpose/functions they have been extended. Table 4.10 shows such distribution. It can be seen that as of 1977-78 a substantial portion (59.5 per cent) of subsidies went to economic services, namely, agriculture, industry, transport and communication and others, followed by consumption subsidies (40 per cent) and social services (negligible). Even during the period 1965-66 to 1977-78, in a number of years (1965-66, 1966-67, 1968-69, 1969-70, 1970-71, 1971-72 and 1977-78) economic services claimed the major share. Within the subsidies to economic services, the share of industry has been quite substantial in all the years. However, this includes subsidies for exports also. The share of agriculture *per se* has not been very high. Consumption subsidies also have been substantial and generally increased from 1967-68 to 1974-75. Since then they have been falling (Table 4.10).

Furthermore, in absolute terms, subsidies to industry have been phenomenal. They increased from a paltry sum of Rs. 43 crore in 1965-66 to Rs. 499 crore in 1977-78 (at current prices), while subsidies for other purposes were negligible until 1976-77 (Table 4.11).

Yet another interesting finding is that a substantial amount of subsidies has gone to export promotion. For example, subsidies for export promotion at current prices increased from Rs. 46 crore in 1966-67 to Rs. 327 crore in 1977-78. Subsidy for food is among the important subsidies. In 1977-78, its share was only about 39 per cent, but in several of the earlier years, it claimed the major share of subsidies—i.e., 62 per cent in 1967-68, 57 per cent in 1972-73, 70 per cent in 1973-74 and 1974-75 and 53 per cent in 1975-76 and 1976-77. However, a very large part of the subsidies is benefiting urban consumers. If this fact is considered along with the fairly low share of subsidies going to agriculture, it will be seen that the share of subsidies going to rural population is fairly low (Table 4.12).

Pensions. Pensions are another important category in current transfers. They accounted for 0.95 per cent of the Central government expenditures and 2.61 per cent of total transfer payments in 1977-78. They increased by 8.01 times at current prices i.e., from Rs. 17.70 in 1950-51 to Rs. 141.80 crore in 1977-78) and 2.5 times at constant 1970-71 prices (i.e., Rs. 33.71 crore

TABLE 4.11

Distribution of Subsidies by Purpose at Current Prices (1965-66 to 1977-78)

(Rs. crore)

Year	Services other than defence	Social services			Economic services					Consumption subsidies	Total subsidies
		Medical and public health	Other social services	Total	Agriculture	Industry	Transport and communication	Other economic services	Total		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1965-66	—	—	—	—	4.0	42.8	0.7	—	47.5	—	47.5
1966-67	—	—	—	—	44.5	68.9	0.5	—	113.9	91.0	204.9
1967-68	—	—	—	—	1.9	56.4	0.9	—	59.2	95.2	154.2
1968-69	—	—	—	—	—	45.5	1.6	0.1	47.2	3.8	51.0
1969-70	—	—	—	—	0.1	62.2	2.8	0.1	65.2	30.8	96.0
1970-71	—	—	0.3	0.3	0.1	74.0	1.6	0.2	75.9	18.0	94.2
1971-72	—	—	0.9	0.9	—	85.5	4.0	0.2	89.7	49.7	140.3
1972-73	—	0.6	1.4	2.0	—	81.0	4.4	0.2	85.6	117.0	204.6
1973-74	—	—	0.1	0.1	0.8	104.1	4.2	0.2	109.3	251.5	360.9
1974-75	—	—	—	—	—	122.0	2.0	0.1	124.1	295.1	419.2
1975-76	0.1	0.6	0.1	0.7	0.4	215.6	2.7	0.1	218.8	250.1	469.7
1976-77	—	1.3	1.2	2.5	59.9	376.2	2.3	0.1	438.5	506.0	947.0
1977-78	—	1.0	1.8	2.8	266.5	498.5	0.2	0.1	765.3	518.7	1286.8

in 1950-51 to Rs. 83.00 crore in 1977-78) during the study period. But as a percentage of GNP, they declined from 0.18 per cent in 1950-51 to 0.09 per cent in 1962-63 and increased gradually to 0.16 per cent in 1977-78.

Capital transfers. Having discussed the current transfers, a word about the capital transfers may be warranted since they constitute a sizeable portion of transfer payments (14 per cent) and 5.04 per cent of the Central government expenditure in 1977-78 at current prices. They comprise grants for capital formation (to States and Union Territories, non-departmental commercial undertakings, local authorities and others), gratuities and commuted value of pensions, compensation paid to displaced persons and other capital transfers. Their growth has been very rapid. From a paltry sum of Rs. 6.00 crore in 1950-51, they increased to Rs. 68.70 crore in 1960-61, Rs. 193.30 crore in 1970-71 and Rs. 754.60 crore in 1978-79 (at current prices) —an increase of 125 times during the study period. They constituted hardly 0.06 per cent of GNP in 1950-51, but grew to 0.85 per cent in 1977-78[5]. The main reason for this is that the grants for capital formation to the States, Union Territories, non-departmental commercial undertakings, local authorities, etc., have increased tremendously.

Financial Investments and Loans to the Rest of the Economy

As mentioned earlier, these expenditures supplement the current and capital receipts of other sectors. They consist of (a) investments in shares of government concerns, (b) loans for capital formation (to the States, local authorities and non-departmental commercial undertakings and others), (c) subscription to international financial organisations and (d) net purchase of gold and silver. In 1977-78, they constituted 31.82 per cent of the Central government expenditure (i.e., Rs. 4767.70 crore) at current prices. They were Rs. 72 crore only in 1950-51, but gradually grew to Rs. 570 crore in 1960-61, Rs. 1955 crore in 1970-71 and Rs. 4767 crore in 1977-78: an increase of 66 times during the study period, at current prices (Table 4.13). At constant 1970-71 prices they increased from Rs. 137 crore in 1950-51 to Rs. 1036 crore in 1960-61, Rs. 1956 crore in 1970-71 and

TABLE 4.12

Subsidies by Type at Current Prices
(1965-66 to 1977-78)

(Rs. crore)

Year	*Subsidy for export promotion and marketing development*	*Food subsidy*	*Fertiliser subsidy*	*Subsidy for the loss on sugar export*	*Other Subsidies*	*Total subsidies*
	(1)	(2)	(3)	(4)	(5)	(6)
1965 66	N.A.	N.A.	N.A.	N.A.	N.A.	N.A
1966-67	46.0	91.0	43.0	—	25.0	205.0
	(22.44)	(44.39)	(20.98)		(12.20)	(100.0)
1967-68	40.0	95.0	—	—	19.0	154.0
	(25.97)	(61.69)			(12.34)	(100.0)
1968-69	34.0	—	—	—	17.0	51.0
	(66.67)				(33.33)	(100.0)
1969-70	45.0	31.0	—	—	20.0	96.0
	(46.88)	(32.29)			(20.83)	(100.0)
1970-71	41.0	18.0	—	—	35.0	94.0
	(43.62)	(19.15)			(37.23)	(100.0)
1971-72	54.0	50.0	—	—	36.0	140.0
	(38.57)	(35.71)			(25.71)	(100.0)
1972-73	62.0	117.0			26.0	205.0
	(30.24)	(57.07)			(12.68)	(100.0)

TABLE 4.12 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1973-74	66.0	251.0	—	—	43.0	360.0
	(18.33)	(69.72)			(11.94)	(100.0)
1974-75	88.0	295.0	—	—	36.0	419.0
	(21.00)	(70.41)			(8.59)	(100.0)
1975-76	161.0	250.0	—	—	59.0	470.0
	(34.26)	(53.19)			(12.55)	(100.0)
1976-77	269.0	506.0	—	—	172.0	947.0
	(28.41)	(53.43)			(18.16)	(100.0)
1977-78	327.0	480.0	266.0	—	175.0	1248.0
	(26.20)	(38.46)	(21.31)		(14.02)	(100.0)

Note: 1. Figures in parentheses are percentages of total.
2. Tables of percentages may not tally due to rounding off.

TABLE 4.13

Financial Investments and Loans to the Rest of the Economy at Current Prices 1951 to 1978

(Rs. crore)

Year	*Investment in shares of government companies*	*Loans for capital formation*	*Other loans*	*Subscription to international financial organisations and net purchase of gold and silver*	*Total financial investments and loans to the rest of the economy*
	(1)	(2)	(3)	(4)	(5)
1950-51	4.80	41.50	25.70	0.00	72.00
1951-52	4.20	85.00	4.10	0.00	93.30
1952-53	2.30	105.80	16.40	0.00	124.50
1953-54	4.60	144.90	30.00	0.00	179.50
1954-55	6.20	251.10	9.70	0.00	267.00
1955-56	3.40	291.80	6.20	0.00	301.40
1956-57	26.30	240.50	39.50	2.10	308.40
1957-58	146.60	309.40	57.70	0.00	513.70
1958-59	178.30	360.80	26.20	2.20	567.50
1959-60	49.70	461.90	30.90	98.10	640.60
1960-61	76.90	426.20	60.70	6.20	570.00
1961-62	85.40	474.80	120.50	6.50	687.20

TABLE 4.13 (Contd.)

	(1)	(2)	(3)	(4)	(5)
1962-63	141.40	536.90	128.70	9.60	816.60
1963-64	169.30	725.80	81.30	10.90	987.30
1964-65	154.90	843.00	118.40	—9.90	1106.40
1965-66	139.90	1031.50	227.90	79.10	1478.40
1966-67	129.90	1039.10	372.60	215.90	1757.50
1967-68	150.20	939.60	404.30	7.00	1501.10
1968-69	199.90	1073.80	398.50	16.00	1688.20
1969-70	303.40	744.40	647.20	5.00	1700.00
1970-71	304.60	881.80	610.40	158.70	1955.50
1971-72	273.20	1047.50	728.40	2.20	2051.30
1972-73	299.30	1381.20	940.40	9.10	2630.00
1973-74	300.40	1282.60	1020.60	16.60	2620.20
1974-75	448.90	1677.20	738.20	1.60	2865.90
1975-76	851.80	2137.50	611.10	229.20	3829.60
1976-77	888.90	2553.90	481.90	61.10	3985.80
1977-78	1047.00	2852.80	858.50	9.40	4767.70

TABLE 4.14

Government Expenditure by Function at Current Prices (1957-58 to 1977-78)*

(Rs. crore)

Year	*Defence services*	*General services other than defence*	*Social services*	*Economic services*	*Unallocable services*	*Total*
	(1)	(2)	(3)	(4)	(5)	(6)
1957-58	127.20	279.40	68.30	547.10	550.60	1572.60
	(8.09)	(17.77)	(4.34)	(34.79)	(35.01)	(100.00
1965-66	844.60	296.60	326.70	2014.40	511.30	3993.60
	(21.15)	(7.43)	(8.18)	(50.44)	(12.80)	(100.00)
1966-67	881.00	533.00	304.40	2086.40	860.60	4665.40
	(18.88)	(11.42)	(6.52)	(44.72)	(18.45)	(100.00)
1967-68	940.30	365.00	271.70	1996.00	924.20	4497.20
	(20.91)	(8.12)	(6.04)	(44.38)	(20.55)	(100.00)
1968-69	998.20	403.90	274.60	1960.20	888.90	4525.80
	(22.06)	(8.91)	(6.07)	(43.31)	(19.64)	(100.00)
1969-70	1058.40	433.70	303.90	2047.80	1080.90	4924.70
	(21.40)	(8.81)	(6.17)	(41.58)	(21.95)	(100.00)
1970-71	1551.60	626.30	364.00	2294.30	1140.30	5576.50
	(20.65)	(11.23)	(6.53)	(41.14)	(20.45)	(100.00)

TABLE 4.14 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1971-72	1473.70	543.50	452.00	2674.40	1566.00	6709.60
	(21.96)	(8.10)	(6.74)	(39.86)	(23.34)	(100.00)
1972-73	1592.60	736.80	664.20	3284.70	1571.00	7849.30
	(20.29)	(9.39)	(8.46)	(41.85)	(20.01)	(100.00)
1973-74	1616.50	835.30	601.10	3152.90	1925.00	8130.80
	(19.88)	(10.27)	(7.39)	(38.78)	(23.68)	(100.00)
1974-75	2019.90	597.80	592.20	4383.20	2191.80	9784.90
	(20.64)	(6.11)	(6.05)	(44.80)	22.40	(100.00)
1975-76	2359.90	984.00	783.70	5688.40	2220.50	12036.50
	(19.61)	(8.18)	(6.51)	(47.26)	(18.45)	(100.000)
1976-77	2426.80	874.50	899.90	6274.20	2674.70	13150.1
	(18.45)	(6.65)	(6.84)	(47.71)	(20.34)	(100.00)
1977-78	2492.50	778.70	970.20	7467.40	3276.80	14985.60
	(16.63)	(5.20)	(6.47)	(49.83)	(21.87)	(100.00)

* For the years from 1958-59 to 1964-65, data are not available.

Note: 1. Figures in parentheses are percentages of total.

2. Totals of percentages may not tally due to rounding off.

Rs. 2791 crore in 1977-78: an increase of 20 times during study period.

It may be noted that much of the increase was on account of (a) grants for capital formation and (b) loans for capital formation. They together accounted for 61 per cent of the financial investments and loans to the rest of the economy in 1977-78. One can see two distinct periods in the growth of financial investments and loans to the rest of the economy: (i) 1950-51 to 1961-62 and (ii) 1962-63 to 1977-78. It was during the second period that investments in government financial concerns and loans for capital formation spurted tremendously.

Functional Classification

In order to understand the purposes to which expenditure has been devoted, classification by functions is necessary. Functional classification illuminates the priorities accorded by government. Unfortunately, data on functional classification are not available for the entire period under study. For the period prior to 1965-66, all that is available are the data on broad classification of functions relating to Revenue Account—as presented to Parliament. Neither the Ministry of Finance nor other agencies like the Reserve Bank of India and the Central Statistical Organisation, Government of India, attempted a detailed functional classification prior to 1965-66. If we had proceeded only on the basis of the economic and functional classification carried out by the Ministry of Finance, we would have studied only the period 1965-66 to 1977-78. But on account of a study made by NCAER in 1960, it was possible for us to cover 1957-58 and thereby study changes over a much longer period than otherwise would have been possible.

We have classified expenditure as follows: (i) defence services, (ii) general services other than defence, (iii) social services, (iv) economic services and (v) unallocable services. During the period 1957-58 to 1977-78, there has been a significant shift in the priorities accorded to various purposes. Defence services which accounted for 8 per cent of the Central government expenditure in 1957-58, accounted for 17 per cent of the total in 1977-78. Similarly, economic services accounted for 50 per cent in 1977-78 as against 35 per cent in 1957-58. The shift in favour of social services is also substantial (Table 4.14).

On the basis of shifts in priorities the entire period may be divided into three sub-periods: (i) 1957-58 to 1965-66, (ii) 1966-67 to 1972-73 and (iii) 1973-74 to 1977-78. Period one is marked by shifts in favour of economic services, social services and defence services; period two is marked by status quo in priorities; and period three is marked by a mild shift in priorities towards mainly economic services.

Insofar as the period 1957-58 to 1965-66 is concerned, the shares of economic services, social services and defence services in the Central government expenditure increased from 35 per cent to 50 per cent, 4 per cent to 8 per cent, and 8 per cent to 21 per cent, respectively, while those of general services other than defence and unallocable services declined from 18 per cent to 7 per cent and 35 per cent to 13 per cent, respectively.

In the second period, that is, 1966-67 to 1972-73,, there was no marked shift in the shares of various functions in the Central government expenditure: defence services accounted for roughly 20 per cent, social services for roughly 6 per cent, economic services for roughly 44 per cent, unallocable services for roughly 21 per cent and general services other than defence for the rest.

In the third period, 1973-74 to 1977-78, there was upward shift in the share of economic services and downward shift in that of defence services, and near status quo in those of general services other than defence, social services and unallocable services. The share of economic services in the Central government expenditure increased from 39 per cent in 1973-74 to 50 per cent in 1977-78, while that of defence services declined from 20 per cent to 17 per cent. It seems that economic services gained at the expense of defence services since the shares of other services remained roughly the same from 1973-74 through 1977-78.

Looked at from the point of view of percentage shares in GNP, the priorities had undergone some change (Table 4.15). In the period 1957-58 to 1965-66, the shares of defence services, economic services and social services went up while those of the remaining went down. The maximum increase was in the case of defence services by 1.23 per cent. In the second period (1966-67 to 1972-73) the priorities did not change, except for a slight

TABLE 4.15

Expenditure by Function as Per Cent of GNP at 1970-71 Prices (1957-58 to 1977-78)*

(Per cent)

Year	*Defence services*	*General services other than defence*	*Social Services*	*Economic services*	*Unallocable services*	*Total*
	(1)	(2)	(3)	(4)	(5)	(6)
1957-58	0.88	2.24	0.55	4.39	4.90	12.96
1965-66	2.11	0.74	0.82	5.04	1.28	10.00
1966-67	3.24	1.96	1.12	7.67	3.16	17.14
1967-68	2.98	1.16	0.86	6.32	2.93	14.24
1968-69	3.03	1.22	0.83	5.94	2.69	13.72
1969-70	2.91	1.19	0.84	5.63	2.97	13.53
1970-71	2.87	1.56	0.91	5.72	2.84	13.90
1971-72	3.41	1.26	1.05	6.18	3.62	15.52
1972-73	3.42	1.58	1.43	7.05	3.37	16.85
1973-74	2.91	1.51	1.08	5.68	3.47	14.65
1974-75	2.97	0.88	0.87	6.44	3.22	14.38
1975-76	3.13	1.31	1.04	7.55	2.95	15.98
1976-77	3.05	1.10	1.13	7.88	3.36	16.52
1977-78	2.79	0.88	1.08	8.33	3.66	16.75

* For the years from 1958-59 to 1964-65, data are not available.

Note : Totals may not tally due to rounding off.

decline in the share of social services, economic services and defence services. In the third period (1963-64 to 1977-78), the share of economic services alone increased by 2.65 per cent while those of defence services, social services and unallocable services remained roughly constant and services other than defence went down by 0.63 per cent.

The noticeable fact is that during the two decades 1957-58 to 1977-78, economic services claimed the major share followed by unallocable services, defence services, general services other than defence and social services. In recent years, particularly since 1973-74, expenditure on economic services has increased faster than the average on all services while the expenditure on defence services has increased at a slower rate. This indicates that development has been accorded a higher priority than defence, contrary to the impression in some quarters

What has been the patttern with regard to individual components of these services? Table 4.16 indicates the trend concerning the important components of social services and economic services and their percentage shares in GNP at 1970-71 prices. It can be seen that during the past 20 years, substantial shifts had taken place in medical and public health and other social services. The percentage share of education remained roughly constant. With respect to economic services, there has been some year to year change in the shares of agriculture and industry during the period. For example, the share of agriculture in GNP increased from 0.55 per cent in 1957-58 to 1 per cent in 1965-66, and increased in the next year itself to 1.85 per cent. But since then it continued to be around 0.8 per cent until 1970-71. However, after 1972-73, it remained at 1 per cent level. With respect to industry, its share increased from 1.45 per cent in 1957-58 to 2.68 per cent in 1966-67; remained roughly constant at 1.8 per cent level until 1973-74 and increased to 3.34 per cent in 1977-78. Transport and communications declined from 2.62 per cent in 1957-58 to 1.42 per cent in 1965-66, and continued to remain around that level since then. On the whole, it may be said that the share of expenditure on education changed little during the two decades 1957-58 to 1977-78 while those on medical and public health and other social services increased slightly. This means that expenditure on social services as a

TABLE 4.16

Important Components of Social Services and Economic Services and Their Percentage Share in GNP at 1970-71 Prices (1957-58 to 1977-78)*

(Per cent)

Year	*Education*	*Medical and public health*	*Other social services*	*Agriculture*	*Industry*	*Transport and communication*
	(1)	(2)	(3)	(4)	(5)	(6)
1957-58	0.31	0.17	0.06	0.55	1.45	2.62
1965-66	0.30	0.17	0.36	1.00	1.56	1.42
1966-67	0.33	0.23	0.56	1.85	2.68	1.85
1967-68	0.28	0.20	0.38	0.79	1.89	1.53
1968-69	0.25	0.23	0.35	0.47	1.85	1.35
1969-70	0.25	0.24	0.35	0.67	1.81	1.16
1970-71	0.27	0.22	0.42	0.53	1.43	1.55
1971-72	0.25	0.31	0.48	0.76	1.81	1.48
1972-73	0.34	0.35	0.73	1.18	1.99	1.63
1973-74	0.26	0.18	0.64	0.69	1.46	1.43
1974-75	0.27	0.16	0.44	1.03	2.24	1.38
1975-76	0.29	0.30	0.45	1.08	3.03	1.44
1976-77	0.30	0.33	0.50	0.92	3.50	1.34
1977-78	0.30	0.26	0.53	1.09	3.34	1.26

* For the years 1958-59 to 1964-65, data are not available.

whole did not rise much faster than GNP. A plausible explanation is that these expenditures are undertaken in the main by the State governments.

NOTES

1. See Appendix Table A.4.
2. See Appendix Table A.5.
3. Government of India, Planning Commission, (1981), *Sixth Five Year Plan, 1980-85*, p. 67.
4. Government of India, Ministry of Finance, (1979), *Report of the Committee on Controls and Subsidies*, (May), p. 114.
5. See Appendix Table A. 6.

5. *Income Elasticities of Government Expenditure by Major Categories*

Introduction

This chapter will attempt to measure the relationship between the growth of government expenditure and national income. This will be done by working out the income elasticities of certain important categories of expenditure. The elasticities will not only indicate the relationships holding in the past but would also help in estimating the likely increases in government expenditure consequent upon increases in national income in the future, other things remaining the same.

Problems of Estimating Income Elasticity of Expenditure

Income elasticity of government expenditure is defined as the percentage by which government expenditure grows if national income increases by one per cent. It can be estimated for aggregate expenditure as well as for particular categories of expenditure. At the outset, we need to determine how expenditure should be classified for estimating elasticities. In other words, should we choose functional categories or economic categories ? Following the examples of other studies, we have decided to estimate elasticities for functional categories of expenditure. However, since the capital component of expenditure (total as well as under different functional heads) cannot be said to bear a close relationship to national income, we have excluded it in estimating the elasticities.

As has been indicated earlier, refined and comparable data by functional categories are not available for the entire period under study. Comparable time series data are available only from 1965-66 onwards from official sources. For the years prior to 1965-66 data are available for 1957-58, from an NCAER study. Since the basic requirement for estimating

income elasticity is the time series data, we attempted to build up a series by utilising the Finance Ministry's publication, *Indian Economic Statistics, Part II, Public Finance.* But such an attempt did not enable us to build a comparable series of expenditures for the entire period because of methodological differences. Hence we have divided the whole period into two: Period I, covering 1950-51 to 1965-66, and Period II, covering 1965-66 to 1977-78. Elasticity estimates for the first period are based on data from *Indian Economic Statistics, Part II, Public Finance* and those for the second period are based on data from *An Economic and Functional Classification of the Central Government Budget.*

In this connection, it may be remembered that income elasticities of expenditure pertain to per capita current expenditure at constant 1970-71 prices[1]. For this purpose we have first converted the expenditure series into constant 1970-71 prices by using appropriate deflators. The procedure followed is as follows. For the period 1950-51 to 1965-66, we have deflated the 'revenue expenditure'—by functional categories—by the implicit Central government expenditure deflator. And for the period 1965-66 to 1977-78, the components of current expenditure—consumption expenditure and current transfers—have been deflated by relevant deflators. That is, consumption expenditure has been deflated by the Central government consumption expenditure deflator and Current transfers have been deflated by the GDP deflator (for details of the methodology see Chapter 2).

A little caution in comparing the income-elasticities of the two periods is warranted. The expenditure data used in the first period pertain to revenue expenditure while those of the second period pertain to current expenditure. In fact, as is well known, revenue expenditures and current expenditures are not identical. Revenue expenditures might include some component of capital outlays whereas current expenditures do not. Further, the functional categories of the first period are slightly different from those of the second period. Also, the methods of deflating the series in the two periods are different.

No attempt has been made to estimate the income-elasticity of defence expenditure. The obvious reason is that defence

expenditure depends largely upon various exogenous forces—threat of war from neighbouring countries, international political situation, war psychosis in the country, type of rule within the country, cold war among nations, etc.—and not upon national income. The functions for which elasticities have been estimated are: education, medical and public health, agriculture, industry and civil administration.

Income Elasticities of Per capita Expenditure During 1950-51 to 1965-66

It can be seen from Table 5.1 that income elasticity of expenditure (at 1970-71 prices) on education was 10.49, the highest among all the functions during 1950-51 to 1965-66. It was followed by 9.97 for medical and public health, 7.61 for agriculture, 3.70 for industry, and 3.16 for civil administration. Income elasticity of total current expenditure was 3.53. The coefficients of income elasticities of all categories are statistically significant.

Income Elasticities of Expenditure During 1965-66 to 1977-78

During the second period, 1965-66 to 1977-78, coefficients of income elasticities were small in comparison to those of the first period. One may suspect that the difference might be due to the use of 'revenue expenditures' instead of current expenditures, during the first period. But we have found that the income elasticity of total current expenditure (derived from the economic classification) for the earlier period was comparably high[2]. Hence the differences in the elasticities between the two periods seem to be genuine. During this period, the income elasticity of expenditure (at 1970-71 prices) on education was 0.83 while that of medical and public health was 4.16 (Table 5.2). With regard to economic services, the income elasticity of expenditure on industry was 3.12 while the income elasticities of expenditure on agriculture and transport and communications was 1.82 and 1.87 respectively. The income elasticity of current civilian expenditure was 2.45 while that of total current expenditure (including defence) was 1.83.

Sometimes on may question the justifiability of the elasticity coefficients of expenditures mentioned above. It may be argued that while there is a justification for working out the income

TABLE 5.1

Income Elasticities of Central Government Expenditure on Major Categories at Current and 1970-71 Prices (1950-51 to 1965-66)

Sl. No.	*Functional head*	*Elasticity coefficient*	
		At current prices	*At 1970-71 prices*
		(1)	*(2)*
1.	Education	4.81 (6.562)*	10.49 (7.999)*
2.	Medical & public health	4.42 (5.495)*	9.97 (7.246)*
3.	Agriculture	3.53 (6.278)*	7.61 (8.626)*
4.	Industry	1.67 (2.308)*	3.70 (2.466)*
5.	Civil administration	1.92 (10.203)*	3.16 (9.809)*
6.	Others (Miscellaneous)	2.50 (12.533)*	4.16 (7.577)*
7.	Total (non-defencc)	2.52 (11.599)*	4.42 (9.817)*
8.	Total revenue expenditure	2.22 (18.342)*	3.53 (9.557)*

Note: Figures in parentheses are 't' values.
*Significant at one per cent level

TABLE 5.2

Income Elasticities of Central Government Expenditure on Major Categories at Current and 1970-71 Prices (1965-66 to 1977-78)

Sl. No.	*Functional head*	*Elasticity coefficient*	
		At current prices	*At 1970-71 prices*
1.	Education	1.01 (5.660)*	0.83 (1.029)*
2.	Medical & public health	1.51 (5.949)*	4.16 (4.296)*
3.	Agriculture	1.23 (2.842)*	1.82 (0.919)*
4.	Industry	1.44 (6.723)*	3.12 (3.316)*
5.	Transport & communication	1.10 (8.726)*	1.87 (3.191)*
6.	Civil administration	1.07 (11.921)*	1.46 (2.875)*
7.	Others (Unallocables)	1.40 (12.118)*	2.61 (4.346)*
8.	Total non-defence)	1.32 (15.172)*	2.45 (5.949)*
9.	Total current expenditure	1.17 (16.294)*	1.83 (5.801)*

Note: Figures in parentheses are 't' values.
*Significant at 1 per cent level

elasticity of aggregate government expenditure, there is little justification to relate components of the aggregate expenditure in terms of functional categories to income. The reason is that the distribution of aggregate expenditure into functional categories depends on various social, economic, political and other compulsions including income of the government and not on the income of the people only. The alternative suggestion is that it would be better if we decompose the aggregate elasticity into corresponding functional components. The fact is that it is not possible to calculate the elasticities as mentioned. Further, there is nothing conceptually wrong to estimate the elasticity of expenditure under functional categories with reference to income because it is reasonable to postulate that the demand for various types of services is elastic in different degrees with reference to income. It may be added that in several major studies of public expenditure, elasticities of categories of expenditure with reference to income have been estimated, for example, Bird, R.M. (1970), Mahar, D.J. and Rezende, F.R. (1975), Pluta, J.E. (1979) and Beck Morris (1981).

NOTES

1. With respect to per capita GNP at constant prices.
2. Income elasticities of per capita current Central government expenditure at current prices and 1970-71 prices were 2.176 and 3.522, respectively.

6. *Impact of Government Purchases on Sectoral Outputs*

Introduction

It is common knowledge that government expenditure creates additional demands for goods and services in the economy through multiplier effects and thereby induces a rise in the aggregate level of output. The 'first round effects' occur in those industries which directly supply their products to the government. The subsequent 'round effects' occur when these suppliers place orders on other industries for intermediate goods. Besides, there are multiplier effects through demand linkage. Thus, increased output (as a result of government demand) augments factor income in the respective industries which causes a rise in private consumption. Similarly, a portion of the government expenditure paid as wages and salaries also augments private consumption. The increase in private consumption as a result of the above two generates a sequence of output effects. Knowledge about sector-wise total impact (direct as well as indirect) of government expenditure on output is of immense utility for tailoring expenditure policy to achieve a desirable degree of inter-sectoral balance in the economy.

This chapter purports to work out first the commodity composition of Central government expenditure and then estimate the sector-wise direct and indirect impact of Central government expenditure in India for 1977-78. In is confined to the expenditure on goods and services and excludes all types of transfer payments (such as loans and grants-in-aid) as well as wages and salaries. Transfer payments and wages and salaries have been excluded because we are interested in measuring the impact of government demand and not the impact of induced private demand. The decision regarding the reference year was largely based on the availability of input-output data.

Review of Literature

Studies relating to the measurement of the impact of govern-

ment expenditure on the rest of the economy have generally employed the inter-industry framework. While most of the studies, especially those conducted in the Indian context, concentrated on the measurement of only the output effects, a few went a step further and attempted to measure the impact on factor incomes, import needs and the balance of payments.

Studies made by Peacock and Stewart (1958), Roskamp (1969) and Jones and Kabursi (1973) are concerned with the direct and indirect impact of government expenditure on factor shares, import needs and the balance of payments. Peacock and Stewart (1958) considered a six-sector open-end Leontief model for UK and computed the impact of government commodity expenditures on factor incomes for 1954. Roskamp (1969) made a similar study for West Germany using a 55-sector input-output table for 1954. He quantified the effect of changes in the composition of government expenditure on the budget deficit, growth of income, change in the factor shares and balance of payments deficit. All these studies, although illuminating and useful, have been made only in respect of aggregate government expenditure and not in respect of function-wise disaggregated expenditures. They are criticised, therefore, on the ground that the analysis of function-wise disaggregated expenditures might be more useful than the analysis of aggregate expenditure. According to Jones and Kabursi (1973, p.87), a realistic consideration of composition of government expenditure should be in terms of different expenditure programmes (defence, education, etc.) rather than of aggregate expenditure. They suggested a programming model whereby government purchases grouped by functions are optimised.

Some studies have been made on the impact of government expenditure in India too. Important among them are those of Mathur (1963), Bhalla (1971), Paithankar (1973) and Sarma and Tulsidhar (1980). The earliest one is that of Mathur (1963). His problem was to estimate the commodity-wise direct and indirect requirements for an important component of public expenditure, namely, defence. Since there was no input-output table for India at that time, he constructed a 17-sector input-output table for the year 1959. The commodity-wise defence expenditure was collected from the Directorate General of

Supplies and Disposals (DGS&D). While estimating the total direct and indirect requirements for defence expenditure for two years, 1957-58 and 1958-59, he considered not only the expenditures on goods and services but also the expenditure on wages and salaries.

Bhalla (1971) estimated the direct and indirect income effects for Punjab for 1957 and for India for 1959. He used a 17-sector input-output table for Punjab and a 29-sector table for India. He considered a modified version of Leontief's open end model. He treated imports as part of the structural matrix by attributing total imports to the competitive sectors by means of negative entries. Thus, the columns in the inverse give "domestic outputs in each sector that are associated with one unit of final demand (excluding imports) in each sector" (p. 212). He then computed the direct and "induced income multipliers"[1].

An attempt to study the economic impact of government commodity expenditure in detail was made by Paithankar (1973). He estimated the commodity requirements of individual ministries of the Central government as well as the whole government sector for 1961-62 through 1965-66. His study was also confined to commodity expenditures. For analysing the impact, he employed a 65-sector input-output table for 1963[2]. However, the ministry-wise details of Central government expenditure were not readily available and therefore he constructed government vectors with the information collected from various sources, such as, *Detailed Demands for Grants* (DDG), *Directory of Government Purchases* (DGP) published by the DGS&D and *Economic and Functional Classification of the Central Government Budget*. His main findings are: (i) the total (direct+indirect) demand is roughly one-and-a-half-times the direct demand; (ii) the direct demand does not differ from the total direct and indirect demand for most of the sectors and (iii) among the sectors for which the total requirements differ from the direct demand, construction is the important sector.

Sarma and Tulsidhar (1980), in a similar exercise, aimed at measuring the impact of government expenditures on both goods and services and wages and salaries for 1971-72. They, like Paithankar (1973), mainly attempted to construct a reliable government commodity expenditure vector. They attempted to

marry the information given by the DGS&D with that contained in the DDG. Basically, all identifiable commodity-wise expenditure in DDG was deduced from DGP vector itemwise. The rest, namely, the unallocable expenditure of DDG, was apportioned among the corresponding items using the DGP pattern. The commodity pattern of expenditure on wages and salaries was arrived at by combining the information on the distribution of salaries given in the *Census of Government Employees, 1971-72* and the all-India sectoral consumption pattern given in the *Fifth Plan Technical Note.* A comparison of the major results of this study with our results is given later in this chapter.

Objectives and Data Sources

Our objectives in undertaking this exercise are two-fold. First, we would like to work out the commodity composition of the Central government expenditure on goods and services. Our review of the earlier studies shows that so far it has not been possible to work out a detailed and accurate commodity classification of government expenditure. The commodity classification itself will indicate the direct demand by the government for sectoral output. Hence we have spent a considerable amount of effort and time in obtaining as accurate a commodity-wise breakdown of government expenditure as possible.

The second objective of our exercise is to work out the indirect demand for the outputs of different sectors arising from government expenditure. For working out the indirect demand we need an input-output table for the Indian economy. The latest available input-output table for 1977-78 was made available to us by the Planning Commission.

a. *Government Commodity Expenditure*

The vector of commodity expenditure which we have constructed covers expenditure on goods and services by general government and departmental undertakings. All types of expenditures on goods and services are included without making any distinction among final consumption, intermediate consumption and capital formation expenditures. The data pertain to the Central government budget.

We could not use for our purpose the public consumption vector in the input-output table for 1977-78, because it related

to the commodity expenditure by the Central and State governments as well as public undertakings. Besides, the government consumption vector of the 1977-78 input-output table reflects the pattern of public expenditure as of 1972-73, because the latter has been derived merely by updating the earlier table for price-changes. Indeed, detailed commodity-wise classification of the expenditure of the Central and State governments, taken together or separately, has not been worked out so far. Our intention has been to make an exploratory venture in this direction. In order to work out the commodity composition of Central government expenditure, we have mostly used the information contained in the following sources: (i) *Detailed Demands for Grants* (DDG), (ii) *Directory of Government Purchases* DGP; (iii) *An Economic and Functional Classification of the Central Government Budget*, (iv) Railway Board's publication, *A Compendium of Statistical Information on Materials Management* (the compendium); (v) *Annual Reports of Post and Telegraphs* and (vi) *Annual Reports and Performance Budgets* of different Ministries.

b. *Input-output table*

The input-output table for 1977-78 is an 89-sector commodity by industry matrix. To suit our purpose, we have aggregated the 89 sectors into 20 larger sectors, namely, (1) food items, (2) minerals, (3) edible oils, (4) beverages, (5) narcotics, (6) cotton textiles, (7) woollen and silk textiles, (8) jute textiles, (9) wood and wood products, (10) paper and paper products, (11) leather and leather products, (12) rubber and rubber products, (13) petroleum products, (14) chemicals and chemical products, (15) construction materials, (16) metal and non-metal products, (17) non-electrical machinery and transport equipment, (18) electrical machinery, (19) gas, electricity, water supply and communications, (20) other services. It may be noted that the 1977-78 table is only the 1968-69 table updated for price changes. We have nevertheless used it because of our desire to work out the impact of government expenditure for a fairly recent year.

Construction of Government Commodity Expenditure Vector

a. *Methodology*

The DDG for each Department or Ministry give details of expenditure for that Department/Ministry during the year classified under various major and minor heads. The details of the estimates relating to each programme/organisation in respect of which the amount involved is not less than Rs 10 lakh is given under a number of detailed heads which indicate the categories and nature of the concerned expenditures. But this break-up enables us only to identify expenditure on commodities and services and on factor payments. The details do not contain a commodity-wise classification. However, a careful scanning of the hundred-odd Demands yielded information on the expenditure on 15 commodity groups. The rest of the expenditure on goods and services is lumped together as office expenses or lumpsum expenditure on subsidiary offices, on schemes and programmes and on materials and supply and other expenditure. The details of expenditure under Defence are not provided. Thus one cannot derive a comprehensive commodity-wise classification of expenditure from DDG.

The most important source of information on government purchases is DGP. This is an annual publication of the Directorate General of Supplies and Disposals (DGS&D), which is the main agency through which the Central departments procure goods. Though DGS&D acts as a purchasing agency for the Central government departments, departmental commercial undertakings, non-departmental undertakings and quasi-government bodies, its purchases are mainly on behalf of the Central government departments; it is understood that 80-85 per cent of DGS&D purchases are for these departments.

Apart from the purchases made through the DGS&D, the departments also make purchases directly from the market, as they have been given powers to make purchases upto specified limits.

DGS&D gives information on the purchases it makes for the public sector in its publication DGP. It tries to obtain from the departments information on their direct purchases for inclusion in DGP so that the information given would be more comprehensive. One important limitation of DGP data is that

they pertain to the value of orders placed rather than to that of actual purchases. In using DGP data to obtain the commodity-wise break-up of government expenditure, we are implicitly assuming that the ratio of orders placed to actual purchases is more or less the same in respect of all the 20 commodity groups and also remains constant from year to year.

DGP also includes information on purchases for State governments. Data for the year 1977-78 had not yet been published and hence we directly obtained those data through the good offices of the Planning Commission.

Detailed commodity-wise information on the purchases made by the Railways and the Post and Telegraphs Department is available in the *Compendium* and the *Annual Reports* of the Post and Telegraphs, respectively. However, it has to be remembered that the Railways purchase somewhat more than 1/3rd of their requirements through DGS&D. Thus, in using the information from the various sources, it is necessary to make adjustments to avoid double-counting.

The commodity-wise break-down of expenditure obtained from DDG, DGP, the *Compendium* and other sources such as the *Performance Budgets* is presented in Table 6.2

The question now is how the information from various sources should be combined to derive the break-down of the goods and services expenditure of the government by commodity groups. We have to start with a correct total of goods and services expenditure by the Central Government. We have taken this as being equal to the expenditure on goods and services of administrative departments and departmental undertakings as given in the *Economic and Functional Classification of the Central Government Budgets*. This represents government consumption including the commodity portions of the expenditure on repairs and maintenance, intermediate consumption by the Departmental undertakings and the commodity portion of capital formation by the administrative departments and the departmental undertakings. The total of these expenditures amounted to Rs. 3518.3 crore in 1977-78 at purchaser's price (Table 6.1). It is this total which needs to be broken down.

As stated earlier, from the details presented in DDG, it was possible to identify expenditure only on 15 items. The total

expenditure on these items amounted to only 40 per cent of total DDG expenditure. But the figure of expenditure on some of the items given in DDG is exhaustive. These items are: (i) construction materials, (ii) papers, paper products and printing and (c) "office expenses" taken to cover (mainly) gas, electricity, water supply and communication expenses. We removed from Rs. 3518.3 crore the sum of expenditures on those items the expenditure on which could be identified. The problem then is reduced to that of allocation of the rest of the expenditure of Rs. 1956.83 crore.

TABLE 6.1

Estimation of Total Central Government Expenditure on Goods and Services from the Economic and Functional Classification (1977-78)

(Rs. crore)

Name of the head	*Amount*
1. Consumption expenditure on commodities and services	1775.7
2. Consumption expenditure of departmental commercial undertakings	
a. commodities and services	766.9
b. 1/2* of repairs and maintenance	241.4
3. Gross fixed capital formation	
a. 2/3* of expenditure on buildings and construction	435.1
b. 2/3* of expenditure on machinery and equipment	310.5
c. net increase in stocks	(—) 11.3
TOTAL:	3518.3

Notes: *These ratios are the same as those used conventionally while preparing the economic and functional classification.

Source: Government of India, Department of Economic Affairs, Ministry of Finance (1979). *An Economic and Functional Classification of the Central Government Budget*, New Delhi.

We next combined the figures of commodity-wise purchases derived from DGP, the *Compendium* and other sources through the horizontal summation of columns 2, 3 and 4 of Table 6.2. In adding the expenditure by the Railways and the Post and Telegraphs to DGP purchases, some adjustments are made to avoid double-counting. For example, it is understood that roughly 1/3rd of the Railways' requirements of textiles, wood and wood products, metal products, leather and leather pro-

TABLE 6.2

Sector-wise Purchases of Central Government Expenditure Derived from Different Sources

(Rs. crore)

	DDG	*DGP*	*Rail-ways*	*Other sources*
	(1)	(2)	(3)	(4)
1. Food items	56.86	136.11		2.45
2. Minerals		1.00	100.35	
3. Edible oils	51.56	1.37		0.50
4. Beverages		0.68		
5. Narcotics		0.21		
6. Cotton textiles	55.87	66.19	4.84	1.00
7. Woollen & silk textiles		29.19		
8. Jute textiles		40.83		
9. Wood and wood products	0.05	9.65	8.46	
10. Paper & paper products	55.09	29.98		32.13
11. Leather and leather products		7.75	6.42	
12. Rubber and Rubber products		22.87		
13. Petroleum products	5.10	100.53	143.89	
14. Chemicals & chemical products	557.73	74.73	28.13	
15. Construction materials	515.32	209.11	31.55	
16. Metal, non-metal products	15.61	52.10	78.49	
17. Non-electrical machinery & transport equipment	8.94	94.78	282.92	5.69
18. Electrical machinery	207.33	50.80	31.13	
19. Gas, electricity, water supply and communications	23.38			
20. Other services	8.63	10.68		

Sources: 1. Government of India (1979-80). *Detailed Demands for Grants*, vols. I, II and III.

2. Government of India, Directorate General of Supplies and Disposals (Statistical Directorate). Department of Supply. *Directory of Government Purchases* and information directly supplied.

3. Government of India, Ministry of Railways (1979). *A Compendium of Statistical Information on Materials Management*.

4. Government of India (1979). Performance Budgets of various ministries (Home, Food and Agriculture and Post & Telegraphs).

ducts and petroleum products are purchased through DGS&D. Similarly, approximately 20 per cent of the equipment and paper and paper products bought by the Post and Telegraphs are procured through DGS&D. To avoid double-counting, these purchases were eliminated from the figures of purchases of the concerned items given in the *Compendium* and the *Annual Report* of the Post and Telegraphs.

The proportions of expenditures on the different commodity groups in the total combined purchases of DGP, the *Compendium* the *Annual Report* of Post and Telegraphs and the *Performance Budgets*, were then applied to the unallocated expenditure on good and services to derive the break-down of that part of expenditure. The break-down thus derived was added to that of the expenditure from DDG which we had derived earlier.

Thus the commodity break-down of the entire expenditure of Rs. 3518.3 crore was obtained. Table 6.3 presents the break-down of the purchases by the Central government, inclusive as well as exclusive of the purchases of the departmental undertakings (the Railways being the most important of the three).

If Central government expenditure excluding departmental undertakings is considered, it is seen that the largest share of expenditure (17.6 per cent) goes to construction materials (mainly road dressing and roof materials). This is followed by the share of non-electrical machinery and transport equipment (14.9 per cent) followed by the shares of food items and petroleum products (12.2 and 12.0 per cent, respectively). Thus the above-mentioned four groups of items account for 56.7 per cent of total expenditure. Other groups whose shares exceed 5 per cent were chemical products, metals and non-metal products, electrical machinery and cotton textiles. If these are added to the first four groups, the combined share will amount to 81.2 per cent. Thus over 80 per cent of total Central government expenditure creates direct demand for the products of just eight broad groups of industries.

Now, if Central government expenditure including departmental undertakings is taken, it is seen that the largest share of expenditure (19.70 per cent) goes to non-electrical machinery and transport equipment, (mainly automobiles and spares, machine tools and accessories and earth-moving machinery

TABLE 6.3

Commodity Composition of Central Government Expenditure on Goods and Services (1977-78)

(Amounts in Rs. crore)

Sl. No.	Items	Central government purchases		Central government purchases excluding railways and other departmental undertakings		Railways and other departmental undertakings
		Amount	Per cent of total	Amount	per cent of total	Amount
		(1)	(2)	(3)	(4)	(5)
1.	Food items	334.91	9.52	334.91	12.18	
	Cost of ration	334.90	9.52	334.90	12.18	
	Fodder	0.01	neg.	0.01	neg.	
2.	Minerals	224.79	6.39			
	Coal	100.35	2.85			100.35
	Petroleum crude					
	Others	124.44	3.54	124.44	4.53	
3.	Edible oils	4.65	0.13	4.65	0 17	
4.	Beverages	1.74	0.05	1.74	0.06	
5.	Tobacco & tobacco procucts	0.58	0.02	0.58	0.02	
6.	Cotton textiles	174.14	4.95	159.30	5.79	14.84
7.	Woollen & silk textiles	70.64	2.01	70.64	2.57	
8.	Jute textiles	98.55	2.80	98.55	3 58	
9.	Wood & wood products	43.89	1.25	35.43	1.25	8.46
10.	Paper & paper products	55.09	1.57	50.16	1.82	4.93
11.	Leather and leather products	34.31	0.98	27.89	1.01	6.42
12.	Rubber & rubber products	55.24	1.56	55.24	2.01	
	Tyres & tubes	33.14	0.94	33.14	1.21	
	Hoses	1.08	0.03	1.08	0.04	
	Contraceptives	13.44	0.38	13.44	0.49	
	Rubberised fabrics	2.64	0.07	2.64	0.10	
	Others	4.94	0.14	4.94	0.18	
13.	Petroleum products	474.75	13.49	330.86	12.03	143.89
14.	Chemicals & chemical products	225.31	6.40	197.18	7.17	28.13
	Drugs & pharmaceuticals	76.62	2.18	67.05	2.44	9.57
	Paints & varnishes	18.83	0.54	16.48	0.60	2.35

TABLE 6.3 (Contd.)

	(1)	(2)	(3)	(4)	(5)
Gases	20.25	0.58	17.72	0.64	2.53
Insecticides	34.67	0.98	30.34	1.10	4.33
Soaps	5.72	0.16	5.01	0.18	0.71
Polythene fibres	34.56	0.98	30.24	1.10	4.32
Others	34.65	0.98	30.34	1.10	4.31
15. Construction materials	515.17	14.64	483.62	17.59	31.55
Road dressing & roof materials	497.97	14.15	467.48	17.00	30.49
Others	17.19	0.49	16.14	0.59	1.05
16. Metals, non-metals & products	252.34	7.17	173.85	6.32	78.49
Gold	3.63	0.07	1.81	0.07	0.82
Silver	0.04	neg.	0.03	neg.	0.01
Others	249.67	7.10	172.01	6.25	77.66
17. Non-electrical machinery & transport equipment	693.08	19.7	410.16	14.91	282.92
Machine tools and accessories	158.28	4.5	93.67	3.41	64.61
Earth-moving machinery & spares	131.97	3.7	78.10	2.84	53.87
Cranes, hoists, lifting jacks, etc.	20.50	0.58	12.13	0.44	8.37
Road-rollers & spares	28.13	0.8	16.65	0.61	11.48
Business & accounting machines	13.09	0 37	7.75	0.28	5.34
Welding electrodes	6.98	0.20	4.13	0.15	2.85
Welding sets & gas cutting sets	5.93	0.17	3.51	0.13	2.42
Computers, accessories & spares	8.87	0.25	5.25	0.19	3.62
Automobiles & spares	211.9	6.02	125.40	4.56	86.50
Marine equipment	40.39	1.15	23.90	0.87	16.49
Rail transport equipment	3.97	0.11	2.35	0.09	1.62
Hospital equipment & others	63.06	1.79	37.32	1.35	25.74
18. Electrical machinery	172.69	4.91	141.56	5.15	31.13
Power transformers	4.87	0.14	3.99	0.14	0.88
Electric lamps & fittings	13.21	0.37	10.83	0.39	2.38
Fans	21.91	0.62	17.96	0.65	3.95
Electronic equipment	20.77	0.59	17.03	0.62	3.74
Cables & wires	16.57	0.47	13.58	0.49	2.99

TABLE 6.3 (Contd.)

	(1)	(2)	(3)	(4)	(5)
Refrigerators & air conditioners	20.87	0.59	17.11	0.62	3.76
Power-plant equipment & switch-gears	19.08	0.54	15.64	0.57	3.44
Storage batteries	23.77	0.67	19.49	0.71	4.28
Furnaces, ovens, blowers etc.	8.37	0.24	6.86	0.25	1.51
Others	23.25	0.66	19.06	0.69	4.19
19. Gas, electricity & water supply, etc	23.38	0.66	23.38	0.85	
20. Other services	25.87	0.74	23.87	0.86	2.00
TOTAL	3518.33	100.00	2750.01	130.00	768.32

Note : Individual items may not add up to the totals of the sub-heads and the sub-head also may not and-up to the total, as the expenditure vector and the total expenditure are devided separetely from independent sources. Since the resultant discrepancy being negligible at about 1 per cent, no attempt has been made to correct it.

and spares). The next largest share is that of construction materials (14.64 per cent) followed by petroleum products (13.49 per cent), food items (9.52 per cent), metals, non-metals and products (7.17 per cent) and minerals (6.39 per cent). These six items constitute 71 per cent of government purchases. Among the others, textiles (cotton, woollen and silk, and jute) and chemicals and chemical products ars important, forming about 16 per cent of government purchases.

Computation of Indirect Demand for Sectoral Output

a. *Methodology*

For quantifying the effect of Government expenditure on the economy, an open-end Leontief model is considered to be well suited, particularly in the short-run with no possibility of substitution among the factors of production and with average input coefficients equal to marginal ones. The model in matrix notation consists of the following:

x = $(n \times 1)$ vector representing the value of output of each of the industries

A = $(n \times n)$ fixed technical coefficients matrix

G = $(n \times 1)$ vector of government expenditure coefficients

g = a scalar representing total government commodity expenditure

C = $(n \times 1)$ vector of private consumption coefficients

c = a scalar of private consumption

F = $(n \times s)$ matrix of s other final demand coefficients including investment, inventory and exports

f = $(s \times 1)$ vector of values of other final demands

B = $(v \times n)$ a matrix of v primary input coefficients

y = $(v \times 1)$ vector of total values of primary inputs (imports, indirect taxes, wages and non-wage income)

H = $(v \times 1)$ direct primary coefficients vector associated with government expenditures

D,E = similar matrices of direct primary coefficients associated with the other final consumption vector.

The static open-end Leontief model can be conveniently expressed in the two identities as given below:

$$x = Ax + Gg + Cc + Ff \quad (1)$$

$$y = Bx + Hg + Dc + Ef \quad (2)$$

From the two identities various types of impact of different final demands on outputs, incomes, imports or employment of primary inputs can be quantified. However, our interest is only in the impact of the demand of the government sector; we intend to study:

(i) direct impact on sectoral outputs;
(ii) total impact on sectoral outputs; and
(iii) impact on demand for impacts.

The value of purchases of goods and services made by the government directly from each of the production sectors forms the first impact or direct impact. This impact is equivalent to Gg vector itself.

The total (i.e., direct + indirect) impact of government purchases on sectoral outputs can be obtained with the help of equation (1). Rearranging the terms we get

$$x = (I - A)^{-1} [Gg + Cc + Ff] \quad (3)$$

That part of output which can be attributed to government demand is

$$Xg = (I - A)^{-1} Gg \quad (4)$$

Since we assume a static model, the marginal coefficients are equal to the average and the sectoral output multipliers of government demand can be obtained as

$$\triangle x_g/\triangle g = x_g/g = (I - A)^{-1} G \quad (5)$$

The impact on imports arises because the additional demand on the production of various sectors causes additional demand also for imports.

Substituting for x in equation (2), we get:

$$y = B (I - A)^{-1} [Gg + Cc + Ff] + Hg + Dc + Ef \quad (6)$$

The impact of government demand on imports can be quantified as:

$$Y_{ig} = B_i [I - A]^{-1} Gg + H_{ig} \quad (7)$$

where Y_{ig} is that part of Y_i attributable to Gg, Y_i being the import element of y — vector. B_i is a row of import coefficients. H_i represents the total direct imports. The multipliers can be computed as:

$$\triangle Y_{ig}/\triangle g = Y_{ig}/g = B_i (I - A)^{-1} G + H_i \quad (8)$$

It should be noted that sectoral disaggregation of additional import demand y_{ig} cannot be obtained directly through the above analysis. For examyle, y_{ig} is a scalar number and represents the total imports rather than sector-wise import demands. This problem, however, can be circumvented by interpreting the concerned row in B matrix as a separate matrix of (n × n) dimension which has the elements of the original row vector as diagonal elements and zeros for all off-diagonal elements. Thus the imports row B_i orginally is (b_{11}, b_{2i},...b_{ni}). This row can be replaced by the matrix B_i:

$$B_i = \begin{bmatrix} b_{11} & 0 & 0 & \dots & 0 \\ 0 & b_{21} & 0 & \dots & 0 \\ 0 & 0 & b_{31} & \dots & 0 \\ 0 & 0 & 0 & \dots & b_{ni} \end{bmatrix}$$

The resultant y_{1g} will be a column vector representing the sector-wise additional import demand generated by government purchases.

To facilitate further analysis, the sectoral impact is also expressed as proportion to sectoral output.

b. *Estimates of direct and indirect demand*

Our measurement of total demand for sectoral output emanating from the government through the use of the input-output matrix yielded the following results. Central government purchases worth Rs. 2536.75 crore[3] generated an additional indirect demand worth Rs. 4063.66 crore making a total demand of Rs. 6600.41 crore (Tables 6.4 and 6.5). Aggregate output multiplier works out to approximately 2.6 (Table 6.6) and the domestic multiplier works out to 2.2. That is, if government spends Rs. 100 crore on goods and services, the total demand for output in the economy would go up by Rs. 220 crore.

The pattern of total (direct and indirect) demand generated resembles little that of direct demand arising from government expenditure. While the major portion of direct demand is on machinery and transport equipment, petroleum products, construction materials and food products, the major portion of indirect demand is on minerals (22.24 per cent) including petroleum crude and coal, edible oils (10.75 per cent), chemicals and chemical products (20.8 per cent), metal and non-metal products (15.4 per cent), petroleum products (17.19 per cent), and construction materials (10.87 per cent).

By comparing the direct demand pattern vector with indirect demand pattern vector, we can classify the 20 groups of commodities into three categories: (i) commodities for which indirect demand is high even though direct demand is low[4] (ii) commodities for which indirect demand is low even though direct demand is high[5] and (iii) commodities for which direct and indirect demands are more or less similar.[6]

Prominent among the first category are coal and other minerals, edible oils, tobacco and tobacco products, beverages, wood and wood products, rubber and rubber products, public utilities, namely, gas, electricity, water supply, and communications as well as other services. Other sectors that fall into

this category are jute textiles, leather and leather products, and metal and non-metal products. These are intermediate commodities which are needed in the production of most of the commodities. Thus, indirect demand for them is high though government does not purchase them directly. The second category includes woollen and silk textiles, food, non-electrical machinery and transport equipment. These are mainly final consumption goods. The third category covers petroleum products, construction materials and electric machinery.

TABLE 6.4

Sector-wise Purchases of Central Government 1977-78

(Rs. crore)

	Commodity purchases at market prices	*Commodity purchases at producer's prices*
	(1)	(2)
1. Food items	334.91	278.84
2. Coal and other minerals	224.79	155.79
3. Edible oils	4.65	3.30
4. Beverages	1.74	1.27
5. Tobacco and tobacco products	0.58	0.25
6. Cotton textiles	174.14	124.07
7. Wollen and silk textiles	70.64	50.24
8. Jute textiles	98.55	68.25
9. Wood and wood products	43.89	29.69
10. Paper and paper products	55.09	39.07
11. Leather and leather products	34.31	22.33
12. Rubber and rubber products	55.24	42.63
13. Petroleum products	474.74	351.41
14. Chemical and chemical products	225.31	150.97
15. Construction materials	515,17	330.60
16. Metal and non-metal products	252.34	184.46
17. Non-electrical machinery and transport equipment	693.08	527.24
18. Electric machinery	172.69	131.18
19. Gas, electricity, water supply and communications	23.38	19.28
20. Other services	25.87	25.88
TOTAL:	3518.33	2536.75

Note: Col. 1 is derived from sources given in Appendix I. Col. 2 is derived from Col. 1 after adjusting for the margins of trade, transport, etc. The price ratios for the purpose of conversion are obtained from Venkatramaiah, P., Kulkarni and Argade (1979).

TABLE 6.5

Sector-wise Direct and Indirect Impact of Central Government Purchases (1977-78)

(Rs. crore)

	Direct demand	*Indirect demand*	*Total demand*
	(1)	(2)	(3)
1. Food items	278.84	160.81	439.65
2. Coal and other minerals	155.79	564.25	720.04
3. Edible oils	3.30	272.66	275.96
4. Beverages	1.27	12.22	13.49
5. Tobacco and tobacco products	0.25	2.95	3.20
6. Cotton textiles	124.07	72.77	196.84
7. Woollen and silk textiles	50.24	11.18	61.42
8. Jute textiles	68.25	180.18	248.43
9. Wood and wood products	29.69	202.98	232.67
10. Paper and paper products	39.07	219.47	258.54
11. Leather and leather products	22.33	42.36	64.69
12. Rubber and rubber products	42.63	187.78	230.41
13. Petroleum products	351.41	436.17	787.58
14. Chemicals and chemical products	150.97	527.37	678.34
15. Construction materials	330.60	275.90	606.50
16. Metal and non-metal products	184 46	390.64	575.10
17. Non-electrical machinery and transport equipment	527.24	139.71	666.95
18. Electrical machinery	131.18	129.71	260.89
19. Gas, electricity, water supply and communications	19.28	95.01	114.29
20. Other services	25.88	139.54	165.42
TOTAL	2536.75	4063.66	6600.41

TABLE 6.6

Sector-wise Direct and Indirect Impact Per Rs. 100 of Government Purchases (1977-78)

(Per cent)

	Direct	*Indirect*	*Total*
	(1)	(2)	(3)
1. Food items	10.99	6.23	17.22
2. Coal and other minerals	6.14	22 24	28.38
3. Edible oils	0.13	10.75	10.88
4. Beverages	0.05	0.48	0.53
5. Tobacco and tobacco products	0.01	0.12	0.13
6. Cotton textiles	4.89	2.87	7.76
7. Woollen and silk textiles	1.98	0.44	2.42
8. Jute textiles	2.69	7.10	9.79
9. Wood and wood products	1.17	8.00	9.17
10. Paper and paper products	1.54	8.65	10.19
11. Leather and leather products	0.88	1.67	2.55
12. Rubber and Rubber products	1.68	8.23	9.91
13. Petroleum products	13.85	17.19	31.04
14. Chemicals and chemical products	5.95	20.79	26.74
15. Construction materials	13.03	10.87	23.90
16. Metal and non-metal products	7.27	15.40	22 67
17. Non-electrical machinery and transport equipments	20.78	5.51	26.29
18. Electric machinery	5.17	5.11	10.28
19. Gas, electricity, water supply and communications	0.76	3.74	4.50
20. Other services	1.03	5.50	6.53
TOTAL	100.00	160.89	260.89

Note: Totals may not tally due to rounding off.

In the resultant pattern of total demand (Col. 3 of Tables 6.5 and 6.6), minerals, petroleum products, chemicals and chemical products, machinery and transport, construction, metal and non-metal products and food items come out to be prominent.

The demand for output as a result of government purchases constitutes approximately 8 per cent of total supply of goods and services in the economy (Table 6. 7). Of this, direct demand by the government constitutes only 3 per cent and induced demand approximately 5 per cent.

c. *Impact on import demand*

Though the direct government demand for imports is only Rs. 50 crore, indirect demand for imports generated in the economy as a result of government purchases is sizeable—Rs. 918 crore. Thus the total demand created for imports works out to be around Rs. 968 crore (Table 6. 8). Machinery (electric and non-electric) and transport equipment (84 per cent), petroleum products (10 per cent) and metal and non-metal products (4 per cent) are the main commodities imported directly by the Central government. But the indirect import demand by the sectors which supply the goods and services to government mainly centre around minerals (39 per cent), petroleum products (18 per cent) and chemicals and chemical products (12 per cent).

Comparison With Other Estimates

Our estimate of output-multiplier of the Central government demand for goods and services at 2.6 for 1977-78, seems rather high when compared to those estimated by others for different years in the past. Mathur's (1962) output-multiplier of defence expenditure for the years 1957-58 and 1958-59 is 1.99. Paithankar's (1973) output-multiplier is 1.5 for the period 1965-66 to 1968-69. Sarma and Tulsidhar's (1980) output-multiplier is 1.6 for the year 1971-72. Strictly speaking, however, a straight comparison may not be valid. Firstly, the multipliers estimated by the quoted authors are for earlier years. Secondly, all of them are not multipliers relating to total Central government purchases; for example, Mathur (1962) was estimating the

TABLE 6.7

Proportion of Output in the Total Output Attributable to the Impact of Central Government Expenditure (1977-78)

(Per cent)

Sl. No.	*Items*	*Direct Demand*	*Indirect demand*	*Total demands*
		(1)	(2)	(3)
1.	Food items	0.03	0.03	0.08
2.	Minerals	0.46	1.67	2.13
3.	Edible oils	0.05	3.74	3.79
4.	Beverages	0.01	0.09	0.10
5.	Tobacco and tobacco products	—	0.03	0.03
6.	Cotton textiles	0.22	0.13	0.35
7.	Woollen and silk textiles	0.60	0.13	0.73
8.	Jute textiles	1.16	3.07	4.23
9.	Wood and wood products	0.25	1.69	1.94
10.	Paper and paper products	0.38	2.14	2.52
11.	Leather and leather products	0.26	0.50	0.76
12.	Rubber and rubber products	0.48	2.13	2.61
13.	Petroleum products	1.85	2.30	4.15
14.	Chemicals and chemical products	0.28	0.96	1.24
15.	Construction materials	1.23	1.02	2.25
16.	Metal and non-metal products	0.28	0.60	0.88
17.	Non-electric machinery and transport equipment	0.41	0.11	0.52
18.	Electrical machinery	1.06	1.05	2.11
19.	Gas, electricity, water supply and communications	0.02	0.12	0.14
20.	Other services	0.01	0.04	0.05
	All sectors	3.13	5.01	8.14

TABLE 6.8

Direct and Indirect Import Requirements of Central Government Commodity Expenditure

(Rs. crore)

Sl. No.	*Items*	*Direct* (1)	*Indirect* (2)	*Total* (3)
1.	Food items	—	4.32	4.32
2.	Minerals	Neg.	361.34	361.34
3.	Edible oils	—	140.32	140.32
4.	Beverages	—	0.01	0.01
5.	Tobacco and tobacco broducts	—	—	—
6.	Cotton textiles	—	0.44	0.44
7.	Woollen and silk textiles	—	0.98	0.98
8.	Jute textiles	—	0.27	0.27
9.	Wood and wood products	—	26.74	26.74
10.	Paper and paper products	—	0.07	0.07
11.	Leather and leather products	—	0.84	0.84
12.	Rubber and rubber products	Neg.	0.27	0.27
13.	Petroleum products	5.52	162.09	167.61
14.	Chemicals and chemical products	0.10	105.88	105.98
15.	Construction Materials	—	3.47	3.47
16.	Metal and non-metal products	2.20	46.43	48.63
17.	Non-electrical machinery and transport equipment	36.47	19.17	55.64
18.	Electric machinery	4.48	44.26	48.74
19.	Gas, electricity, water supply and communications	—	—	—
20.	Other services	—	1.94	1.94
	TOTAL :	48.77	918.84	967.61

Note: Totals may not tally due to rounding off.

total demand generated by defence expenditure only and Paithankar's study covered not only the Central government expenditure but also the expenditure of other governments and government agencies, since he used DGS&D data without modifications. Thirdly, the method of estimation of government vector by them is different from ours. And lastly, the pattern of government expenditure must have changed substantially over time.

NOTES

1. The induced income multipliers are analogous to the Keynesian consumption multipliers. Assuming that the consumption function for each commodity is linear, the Leontief inverse is recomputed after bringing the household income and consumption into the structural matrix. The last row in the extended inverse, when multiplied with the government vector, yields induced income associated with a unit increase in the final demand for the respective sector. The last entry in the row gives the consumption multiplier.
2. Prepared at the Gokhale Institute of Politics and Economics. See Mathur *et. al.* (1965).
3. At producers' prices.
4. Ratio of indirect demand to direct demand is more than one.
5. Ratio of indirect demand to direct demand is less than one.
6. Ratio of indirect demand to direct demand is equal to or slightly more than one.

7. *Composition and Impact of State Government Purchases—A Case Study of Gujarat*

Introduction

It may be recalled that while examining the impact of the Central government purchases in Chapter 7 it was pointed out that a sizeable proportion of the expenditure by the Central government consisted of grants and loans to the State governments. The impact of these transfers on the economy can only be studied through an analysis of the impact of the expenditures of the State governments. Besides, the States account for more than 50 per cent of the total revenue expenditure of the Centre and the States put together. Hence, the impact of the commodity purchases by the State governments is bound to be at least as significant as the impact of those by the Centre.

The pattern of expenditure by the various States is not uniform. Therefore, an analysis based on the aggregate expenditures of all the States would give misleading results; the impact of the expenditure by each State government will have to be studied separately. This is a stupendous task, which would require a considerable length of time and a large volume of resources. We shall, therefore, confine ourselves to a case study of one State.

Choice of the State

Gujarat State has been chosen for this purpose. The choice is partly because Gujarat has a well-organised system of government purchases and the records of the purchases are well maintained by agencies such as the Central Stores Purchase Organisation and the Departmental Purchase Committees, who handle most of the purchases. Secondly, we had originally thought it would be desirable to choose a State for which an input-output table was available. In a sense, of course, the

choice is arbitrary because there are several other States which would satisfy the two criteria.

As in the case of Central government expenditure, the main objective is to work out the commodity composition of the State government's expenditure. Having obtained the commodity composition of expenditure, i.e., the State government's demand vector, as before, we wish to compute the likely indirect demand for the outputs of different sectors. For this we need a fairly up-to-date input table. We shall first consider the methodology of constructing the government's demand vector and then turn to the choice of the input-output table.

Earlier Attempts at Constructing State Government Demand Vector

Only three attempts have been made to work out the commodity composition of government expenditure at the State level. These are by Mehta, B.C. (1977), Kashyap, S.P. (1979) and Sarma, A. and Parekh, K.M. (1980). Mehta and Kashyap were not specially interested in working out the detailed composition of government commodity purchases; they estimated the government vector as one of the components of final demand in the input-output table they were constructing for Rajasthan and Gujarat. Mehta estimated the government vector for Rajasthan on the basis of the pattern of expenditure contained in the government vector in the all-India input-output table given in the *Technical Note* appended to the *Fifth Five Year Plan*. Kashyap obtained the commodity composition of Gujarat Government expenditure by disaggregating the total expenditure on commodities and services in the same proportions as obtained by Paithankar (1969) who estimated DGS&D purchases for the State governments for 1963-64 by 32 commodity groups. Thus, essentially, Mehta and Kashyap derived the government vector on the basis of the pattern of the Central government purchases.

Recently, Sarma and Parekh (1980) have constructed the government demand vector for four States, namely, Maharashtra, Gujarat, Rajasthan and Madhya Pradesh. For this purpose, they used as their main source of data, the *Demands for Grants*, of the respective State budgets. According to them, they could

obtain from the *Demands for Grants* the commodity composition for as much as 84 per cent of government expenditure for Gujarat. However, we find it difficult to accept their claim of having been able to work out commodity composition of such a large proportion of government expenditure on the basis of the *Demands for Grants*, because with our best efforts, we could not arrive at the commodity composition for more than 24 per cent of the total expenditure on goods and services.[1] Our sources of data and methodology are described below.

Sources of Data and Methodology

In estimating the government vector for Gujarat, four sources have been used:

i. *Detailed Demands for Grants* (DDG) of the Departments;
ii. *Economic-cum-Functional Classification of the State Budget;*
iii. Central Stores Purchase Organisation (CSPO); and
iv. Departmental Purchase Committees (DPC's).

The DDG for the various administrative units gives the details of expenditure (items 1 to 25 in Table 7.1). Such details indicate fairly well the way the government spends money on different programmes and are of help to the political authorities in sanctioning the demands for grants. They do not enable us to gain an idea of the commodity-wise expenditure of the government in detail. However, by close observation, it is possible to identify a large part of the commodity expenditures. Thus, office expenses, payments for professional and special services, major work, minor work, machinery and equipment, motor vehicles, materials and supplies, and diet charges can be said to represent commodity expenditure. In addition, there are two expenditures shown as "suspense", other charges and lump-sum expenses. For want of information 50 per cent of these can be treated as commodity expenditure. Thus, roughly speaking, it is possible to identify (from DDG) commodity expenditure to the tune of Rs. 22,622.58 lakh which is roughly 24 per cent of the total State government expenditure (Table 7.1). But this is not an accurate figure.

The economic and functional classification of the State budget provides a correct picture of total government expenditure on goods and services and is particularly useful for our

TABLE 7.1

Demands for Grants of Gujarat Government (1977-78)

Sl. No.	*Item*	*Total expenditure under all demands (Rs lakh)*	*Per cent of total*
	(1)	(2)	(3)
1.	Salaries and wages	9639.48	10.02
2.	Travel expenses	681.33	0.71
*3.	Office expenses	1608.59	1.67
*4.	Payment for professional and special services	132.84	0.14
5.	Rent, rates and taxes/royalties	131.13	0.14
*6.	Publication	5.99	0.01
*7.	Advertising	476.11	0.49
8.	Grants-in-aid/contribution/subsidies	19264.15	20.22
9.	Scholarships and stipends	244.23	0.25
10.	Hospitality expenses/sumptuary allowances	0.76	—neg.
*11.	Major work	61.37	0.06
*12.	Minor work	943.87	0.98
*13.	Machinery and equipment/tools and plant	362.96	0.38
*14.	Motor vehicles	221.35	0.23
*15.	Maintenance	166.95	0.17
16.	Investment/loans	21463.20	22.31
*17.	Materials and supplies	1327.47	1.38
**18.	Suspense	16384.37	17.03
19.	Pensions/gratuities	2065.47	2.15
20.	Depreciation	7.25	0.01
21.	Inter-account transfers	2787.67	2.90
22.	Write off/losses	87.62	0.09
**23.	Other charges/expenditure	558.24	0.58
*24.	Diet charges	88.28	0.09
25.	Other expenditure	1.30	—neg.
**26.	Lump sum	17510.98	18.20
	TOTAL	96222.26	100.00

Note: All items marked * plus 5 per cent of items marked ** can be identified as expenditure on goods and services.

Source: Government of Gujarat (1979–80), *Budget Documents*.

TABLE 7.2

Expenditure of Gujarat Government by Economic Categories (1973-74 to 1977-78)

(Rs. lakh)

Economic category	*1973-74*	*1974-75*	*1975-76*	*1976-77*	*1977-78*
	(1)	(2)	(3)	(4)	(5)
1. Consumption expenditure	14146	10729	12749	15486	15996
1.1 Compensation to employees	6457	5923	7758	10833	10782
1.2 Commodities and services	6456	4168	4405	4017	3760
1.3 Repairs and maintenance	1233	638	586	636	1454
2. Gross capital formation	7953	10163	9685	9691	13987
2.1 Construction	7452	8335	10469	8915	13735
2.2 Machinery and equipment	351	293	282	346	326
2.3 Increase in inventories	150	1535	—1066	430	—74
Total expenditure (1+2)	22099	20892	22434	25177	29983
Total government expenditure on goods and services	15642	14969	14676	14344	19201

Source: Government of Gujarat, Bureau of Economics and Statistics, *An Economic and Functional Classification of the Gujarat Government Budget* (various issues).

purpose. Current expenditure on goods and services (shown in consumption expenditure), gross fixed capital expenditure on the construction of buildings for office, residential and other purposes, road construction and other capital projects, machinery and equipment (shown in gross capital formation) and charges in inventories constitute the total spending on goods and services.

The bulk of government purchases are routed through the CSPO and the DPC's. In fact until 1964, The CSPO played a vital role in purchasing goods for the government. After 1964, with a view to expediting the purchases and reducing the time involved in the whole process, two major procedural amendments were made. Firstly, the government departments were allowed to buy those items for which rate or running contracts had been entered into either by the DGS&D or by the CSPO, i.e., these items could be bought directly without placing indents with the CSPO. Such purchases are operated by the

direct demanding officers who are Class I gazetted officers in the State government. Secondly, for a few specific departments, the government has appointed some purchase committees to look after their purchases of certain specialised items, which are required by those departments occasionally (See Appendix Table D.1) These DPC's are empowered to make purchases upto a monetary ceiling[2].

It would have been ideal if we could have gathered complete data from all the three sources. For then, we could have accounted for all purchases and obtained the commodity-wise break-down of those purchases. Unfortunately, while we could get, through the good offices of the Finance Department of Government of Gujarat, fairly comprehensive information with the desired details from the CSPO and the various DPC's, we could not get the figures of purchases by the direct demanding officers. The main reason for this is that such direct demanding officers are large in number and are scattered throughout the State.

In order to arrive at the commodity composition of the Gujarat Government expenditure, we have made use of information obtainable from all the sources mentioned above. First, we have to determine the total expenditure on goods and services. We have two estimates of this: one from DDG amounting to Rs. 226.2 crore and the other from the *Economic and Functional Classification of the Budget* (Table 7.2) amounting to Rs. 192.0 lakh (for 1977-78). The former figure is the less accurate one, as the break-down of some of the budgetary items has been worked out on the basis of an assumption (see p. 100). Hence we have taken Rs. 192.0 crore to be the total expenditure on goods and services for 1977-78. The corresponding figures for the other years are also given in Table 7.2.

The next step is to work out the commodity composition of this total for 1977-78. For this purpose we first subtracted from the total expenditure the amount spent on construction as given in *An Economic and Functional Classification of the Gujarat Government Budget*. The problem was then reduced to one of allocating the remainder of the expenditure given in the *Economic and Functional Classification*. For this purpose, the figures of purchases gathered from the CSPO and DPC's as well as

TABLE 7.3

Data on the State Government Purchases Obtained for Various Sources (1977-78)

(Rs. lakh)

Sl. No.	Sectors	Demand for grants	Central stores & purchase organisation	Departmental purchase committees							Total	Per cent of total
				Employment and training	Employees State insurance	Forensic laboratories	Medical and health	Ports	Technical education	Engineering & research		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Food items	88.28	—	—	—	—	—	—	—	—	88.28	3.78
2.	Minerals	—	—	—	—	—	—	—	—	—	—	—
3.	Edible oils	—	—	—	—	—	—	—	—	—	—	—
4.	Beverages	—	—	—	—	—	—	—	—	—	—	—
5.	Tobacco & tobacco products	—	—	—	—	—	—	—	—	—	—	—
6.	Cotton textiles	—	41.27	0.10	—	—	—	—	—	—	41.37	1.77
7.	Woollen & silk textiles	—	4.47	—	—	—	—	—	—	—	4.47	0.19
8.	Jute textiles	—	—	—	—	—	—	10.79	—	—	10.79	0.46
9.	Wood & wood products	—	0.29	0.29	0.16	—	—	—	—	—	0.74	0.03
10.	Paper & paper products	—	24.27	—	—	—	—	—	—	—	24.27	1.04

TABLE 7.3 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
11. Leather & leather products	—	13.37	—	—	—	—	—	—	—	13.37	0.57
12. Rubber & rubber products	—	—	—	—	—	—	—	—	—	—	—
13. Petroleum products	—	7.65	0.95	—	0.12	—	—	—	—	8.63	0.37
14. Chemicals & chemical products	—	6.01	0.13	177.83	0.63	—	1.90	0.42	—	186.92	7.99
15. Construction materials	—	—	—	—	—	—	—	—	—	—	—
16. Metal & non-metal products	—	20.75	2.59	—	0.08	—	—	0.40	—	23.82	1.02
17. Non-electrical machinery & transport equipments	—	93.62	10.27	5.85	0.41	26.90	0.57	9.47	5.07	152.79	6.53
18. Electric machinery	—	29.65	1.26	—	0.66	—	3.80	5.81	—	41.18	1.76
19. Gas, electricity, water supply & communication	1608.59	—	—	—	—	—	—	—	—	1608.59	68.80
20. Other services	132.84	—	—	—	—	—	—	—	—	132.84	5.68
TOTAL	1829.71	241.26	15.59	183.84	1.90	26.90	17.06	16.10	5.07	2338.06	100.00

from DDG were grouped into the 19 sectors other than construction. (Table 7.3), and their relative proportions were obtained. The unallocated Government expenditure was multiplied by these proportions in order to obtain its break-down. The results are presented in Table 7.4. It may be noted that we have obtained the proportions on the basis of the purchases made by CSPO and DPC's. Thus it has been assumed that the pattern of purchases by the direct demanding officers is more or less the same, as those routed through the CSPO and the DPC's.

It was possible to obtain information on the CSPO and DPC purchases only for the year 1977-78. On the assumption that the pattern of Government expenditure does not change significantly from year to year, the proportions of 1977-78 were applied to the years 1973-74 to 1976-77. The Government demand vectors thus worked out for all the years from 1973-74 to 1977-78 are given in Table 7.4. These vectors at market prices were converted into producers' prices to put them on the same basis as the input-output table. The conversion was made on the basis of the producers' purchase's price ratios estimated by Venkatramaiah, *et. al.* (1979). The resulting figures are presented in Table 7.5.

Composition of Government Purchases

Tables 7.4 and 7.5 show the composition of government purchases. Three items, namely, construction materials; gas, electricity, water supply and communication; and chemicals and chemical products accounted for more than 90 per cent of the government purchases in 1977-78. Other commodities like jute textiles, woollen and silk textiles, wood and wood products, paper and paper products, and leather and leather products accounted for negligible proportions. In 1977-78, of the total government purchases worth Rs. 13,138 lakh, at producer prices (Rs. 19,201 lakh at market prices), Rs. 8,814 lakh were on account of construction materials, and Rs 3,110 lakh were on account of gas, electricity, water supply and communication.

It will be noticed that according to the break-down available there were no purchases of rubber and rubber products by the Government. But this should not be construed to mean that the Government did not purchase rubber and rubber pro-

ducts at all. It is possible that the information collected from DPC's did not contain the purchases of rubber and rubber products or that such purchases were merged with some category. This is indicative of the weakness of data collected from DPC's.

Total Impact of Government Purchases

a. *Input-output table*

The latest available input-output table for Gujarat is a decade old. Further, it is a highly aggregated one and does not correspond to the sectors mentioned in the earlier chapters. Constructing a new input-output table for Gujarat would be a separate study by itself. On the other hand, it would not serve our purpose to make use of the existing one. There is another important reason why we decided not to use the input-output table for Gujarat. The economy of a State is an open one in the sense that imports into the State from the other States tend to form a large proportion of the total demands emanating from the State and the industries operating in the State likewise tend to export a large proportion of their products to the other States. Thus, a substantial part of the direct demand of the State government as well as the indirect demand arising from it may spill over to the industries located in the other States. Therefore, the full impact of the State government's demand on the economy would not be captured, if we confine ourselves to the computation of the impact on Gujarat's economy. Moreover, even for that computation, it would be necessary to know the break-down of the State government's commodity expenditure by "imports" and home purchases. Such a break-down with the necessary degree of disaggregation is not available. We have, therefore, opted to use the input-output table for the Indian economy and to compute the total impact of the commodity purchases by the Government of Gujarat on the industries in the economy as a whole. In using the input-output table for 1977-78, we have aggregated the 89-sector table into 20 sectors.

b. *Measurement of indirect demand*

In order to measure the indirect demand of Government purchases for the years 1973-74 to 1977-78, the vector of Government expenditure for each year was first expressed in terms

TABLE 7.4

Gujarat Government Vector at Market Pricess (1973-74 to 1977-78)

Sl. No.	*Sector*	*1973-74*	*1974-75*	*1975-76*	*1976-77*	*1977-78*
		(1)	(2)	(3)	(4)	(5)
1.	Food items	309.58	250.77	159.02	205.22	206.61
2.	Minerals	—	—	—	—	—
3.	Edible oils	—	—	—	—	—
4.	Beverages	—	—	—	—	—
5.	Tobacco & tobacco products	—	—	—	—	—
6.	Cotton textiles	144.96	117.42	74.46	96.09	96.75
7.	Woollen & silk textiles	15.56	12.60	7.99	10.32	10.39
8.	Jute textiles	37.67	30.52	19.35	24.97	25.14
9.	Wood & wood products	2.46	1.99	1.26	1.63	1.64
10.	Paper & paper products	85.18	68.99	43.75	56.46	56.85
11.	Leather & leather products	46.68	37.81	23.98	30.95	31.16
12.	Rubber & rubber products	—	—	—	—	—

TABLE 7.4 (Contd.)

	(1)	(2)	(3)	(4)	(5)
13. Petroleum products	30.30	24.55	15.57	20.09	20.22
14. Chemicals & chemical products	654.38	530.06	336.14	433.78	436.73
15. Construction materials	7452.00	8335.00	10469.00	8915.00	13735.00
16. Metal & non-metal products	83.54	67.67	42.91	55.38	55.75
17. Non-electrical machinery	534.81	433.20	274.72	354.51	356.93
18. Electric machinery	144.14	116.76	74.04	95.55	96.20
19. Gas, electricity, water supply & communication	5634.72	4564.19	2894.42	3735.15	3760.61
20. Other services	465.19	376.81	238.96	308.37	310.47
TOTAL	15641.17	14968.34	14675.57	14343.47	19200.45

TABLE 7.5

Gujarat Government Vector at Producer Prices (1973-74 to 1977-78)

Sl. No.	*Sector*	*Price indices*	*1973-74*	*1974-75*	*1975-76*	*1976-77*	*1977-78*
		(1)	(2)	(3)	(4)	(5)	(6)
1.	Food items	0.83	257.76	209.69	132.40	170.87	172.02
			(2.29)	(1.98)	(1.32)	(1.71)	(1.31)
2.	Minerals	0.64	—	—	—	—	—
3.	Edible oils	0.72	—	—	—	—	—
4.	Beverages	0.72	—	—	—	—	—
5.	Tobacco & tobacco products	0.68	—	—	—	—	—
6.	Cotton textiles	0.71	103.30	83.67	53.06	68.47	68.94
			(0.92)	(0.79)	(0.53)	(0.68)	(0.52)
7.	Woollen & silk textiles	0.71	11.09	8.98	5.69	7.35	7.40
			(0.10)	(0.08)	(0.06)	(0.07)	(0.06)
8.	Jute textiles	0.69	26.09	21.14	13.40	17.29	17.41
			(0.23)	(0.20)	(0.13)	(0.17)	(0.13)
9.	Wood & wood products	0.68	1.67	1.35	0.86	1.11	1.12
			(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
10.	Paper & paper products	0.71	60.75	49.20	31.20	40.27	40.55
			(0.54)	(0.46)	(0.31)	(0.40)	(0.31)
11.	Leather & leather products	0.65	30.34	24.58	15.59	20.12	20.25
			(0.27)	(0.23)	(0.16)	(0.20)	(0.15)

TABLE 7.5 (Contd.)

		(1)	(2)	(3)	(4)	(5)	(6)
12.	Rubber & rubber products	0.77	—	—	—	—	—
13.	Petroleum products	0.22	6.67	5.40	3.43	4.42	4 45
			(0.06)	(0.05)	(0 03)	(0 04)	(0.03)
14.	Chemicals & chemical products	0.67	438.17	354.93	225.08	290.46	292 43
			(3.89)	(3.35)	(2.24)	(2.90)	(2.23)
15.	Construction materials	0.64	4781.95	5348.57	6717.96	5720.76	88'3.75
			(42.46)	(50.47)	(66.87)	(57 12)	(67.08)
16.	Metal & non-metal products	0.74	61.59	49.89	31.64	40.83	41.10
			(0.55)	(0.47)	(0.31)	(0.41)	(0.31)
17.	Non-electric machinery	0.76	406.46	329.23	208.79	269.43	271.27
			(3.61)	(3.11)	(2.08)	(2.69)	(2.06)
18.	Electrical machinery	0.67	96.01	77.77	49.32	63.65	64.08
			(0.85)	(0.73)	(0.49)	(0.64)	(0.49)
19.	Gas, electricity, water supply & communication	0.83	4660.48	3775.04	2393.97	3089.34	3110 40
			(41.38)	(35.62)	(23.83)	(30.84)	(23.67)
20.	Other services	0.69	319.49	258.79	164.12	211.79	213.23
			(2.84)	(2.44)	(1.63)	(2.11)	(1.62)
	TOTAL	—	11261.82	10598.23	10046.51	10016.16	13138.40
			(100 00)	(100.00)	(100.00)	(100.00)	(100.00)

Notes: 1. Figures in parentheses are percentage shares in total purchases.

2. Totals may not tally because of rounding off.

TABLE

Sectoral Multipliers of Government (1973-74 to

S. No.	Sector	1973-74			1974-75		
		Direct impact	Indirect Impact	Total Impact	Direct Impact	Indirect Impact	Total Impact
		(1)	(2)	(3)	(4)	(5)	(6)
1.	Food items	2.29	2.77	5.06	1.98	2.54	4.51
2.	Minerals	—	15.73	15.73	—	14.96	14.96
3.	Edible oils	—	5.50	5.50	—	5.07	5.07
4.	Beverages	—	0.35	0.35	—	0.32	0.32
5.	Tobacco and tobacco products	—	1.12	1.12	—	0.97	0.97
6.	Cotton textiles	0.92	1.01	1.93	0.79	0.91	1.70
7.	Woollen and silk textiles	0.10	0.16	0.26	0.08	0.16	0.24
8.	Jute textlles	0.23	6.83	7.06	0.20	7.36	7.55
9.	Wood and wood products	0.01	2.48	2.49	0.01	2.21	2.22
10.	Paper and paper products	0.54	7.40	7.94	0.46	6.67	7.13
11.	Leather and leather products	0.27	8.51	0.78	0.23	0.45	0.69
12.	Rubber and rubber products	—	22.85	22.85	—	19.82	19.82
13.	Petroleum products	0.06	22.74	22.80	0.05	20.31	20.36
14.	Chemicals and chemical products	3.89	9.71	13.60	3.35	8.81	12.16
15.	Construction materials	42.46	5.65	48.11	50.47	5.40	55.67
16.	Metal and non-metal products	0.55	5.76	6.31	0.47	5.49	5.96
17.	Non-electric machinery and transport equipments	3.61	3.78	7.39	3.11	3.48	6.59
18.	Electric machinery	0.85	1.86	2.71	0.73	1.65	2.38
19.	Gas, electricity, water supply and communication	41.38	2.18	43.56	35.52	2.05	37.67
20.	Other services	2.84	3.20	5.04	2.44	2.96	5.40
	Total	100.00	121.59	221.59	100.00	111.57	211.57

Note: Totals and sub-totals may not tally because of rounding off.

7.6

Commodity Expenditure in Gujarat
1977-78)

(Per cent)

1975-76			*1976-77*			*1977-78*		
Direct impact	*Indirect impact*	*Total impact*	*Direct impact*	*Indirect impact*	*Total impact*	*Direct impact*	*Indirect impact*	*Total impact*
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.32	2.04	3.36	1.71	2.33	4.04	1.31	2.04	3.35
—	13.36	13.36	—	14.31	14.31	—	13.34	13.34
—	4.18	4.18	—	4.71	4.71	—	4.16	4.16
—	0.25	0.25	—	0.29	0.29	—	0.25	0.25
—	0.66	0.66	—	0.85	0.85	—	0.66	0.66
0.53	0.69	1.22	0.68	0.82	1.50	0.52	0.68	1.21
0.06	0.15	0.21	0.07	0.15	0.23	0.06	0.15	0.21
0.13	8.44	8.57	0.17	7.79	7.97	0.13	8.45	8.58
0.01	1.65	1.66	0.01	1.98	1.99	0.01	1.64	1.65
0.31	5.17	5.48	0.40	6.06	5.46	0.31	5.15	5.45
0.16	0.36	0.52	0.20	0.42	0.62	0.15	0.35	0.51
—	13.62	13.62	—	17.31	17.31	—	13.54	13.54
0.03	15.34	15.37	0.04	18.30	18.34	0.03	15.27	15.31
2.24	6.95	9.19	2.90	8.06	10.96	2.23	6.93	9.16
66.87	4.88	71.75	57.12	5.19	62.31	67.08	4.88	71.96
0.31	4.93	5.24	0.41	5.26	5.67	0.31	4.92	5.24
2.08	2.88	4.95	2.69	3.24	5.93	2.06	2.87	4.93
8.49	1.22	1.71	0.64	1.47	2.11	0.49	1.21	1.70
23.83	1.78	25.61	30.84	1.94	32.78	23.67	1.78	25.45
1.63	2.44	4.07	2.11	2.75	4.86	1.62	2.44	4.06
100.00	90.99	190.99	100.00	103.22	203.22	100.00	90.73	190.73

TABLE

Direct and Indirect Demands of
(1973-74 to

S. No.	Sector	1973-74			1974-75		
		Direct demand	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*
		(1)	(2)	(3)	(4)	(5)	(6)
1.	Food items	257.76	312.37	570.13	209.69	268.77	478.46
2.	Minerals	—	1771.89	1771.89	—	1585.18	1585.18
3.	Edible oils	—	619.76	619.76	—	537.29	537.29
4.	Beverages	—	39.30	39.30	—	33.62	33.62
5.	Tobacco and tobacco products	—	126.66	126.66	—	103.07	103.07
6.	Cotton textiles	103.30	113.88	217.18	83.67	95.99	179.66
7.	Woollen & silk textiles	11.09	18.17	29.26	8.98	16.80	25.77
8.	Jute textiles	26.09	768.89	794.98	21.04	779.57	800.61
9.	Wood & wood products	1.67	279.04	280.71	1.35	233.88	235.23
10.	Paper & paper products	60.75	833.03	893.78	49.20	706.47	755.66
11.	Leather and leather products	30.34	57.10	87.44	24.58	48.65	73.22
12.	Rubber and rubber products	—	2572.86	2572.86	—	2100.45	2100.45
13.	Petroleum products	6.67	2560.98	2567.65	5.41	2152.84	2158.24
14.	Chemicals and chemical products	438.17	1093.75	1531.92	354.93	934.08	1289.01
15.	Construction materials	4781.95	636.09	5418.04	5348.57	572.27	5920.84
16.	Metal & non-metal products	61.59	648.87	710.46	49.89	581.75	631.64
17.	Non-electric machinery	406.46	425.46	831.92	329.23	369.07	698.31
18.	Electric machinery	96.01	208.95	304.96	77.77	174.52	252.29
19.	Gas, electricity, water supply & communication	4660.48	245.64	4906.12	3775.04	217.24	3992.28
20.	Other services	319.49	360.90	680.38	258.79	313.24	572.03
	Total	11261.82	13693.58	24955.47	10598.23	11824.63	22422.86

Note: Totals and sub-totals may not tally due to rounding off.

7.7

Government Purchases in Gujarat
1977-78)

(Rs. lakh)

1975-76			*1976-77*			*1977-78*		
Direct demand	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
132.40	205.20	337.60	170.87	233 85	404.71	172.02	267.50	439.52
—	1342.50	1342.50	—	1433.32	1433.32	—	1752.93	1752.93
—	419.55	419.55	—	471.40	471.40	—	547.14	547.14
—	25.31	25.31	—	29.12	29.12	—	32.98	32.98
—	66.42	66.42	—	84.77	84.77	—	86.32	86.32
53.06	69.06	122.12	68.47	81.80	150.27	68.94	89.93	158.87
5.69	15.34	21.03	7.35	15.64	22.99	7.40	20.05	27.45
13.45	847.47	860.93	17.29	780.55	797.84	17.41	1110.16	1127.56
0.86	165.92	166.78	1.11	198.48	199.59	1.12	216.03	217.15
31.20	518.96	550.17	40.27	606.72	646.99	40.55	676.10	716.6
15.59	36.25	51.84	20.12	41.99	62.11	20.25	47.23	67.48
—	1368.83	1368.83	—	1733.77	1733.77	—	1779.45	1779.45
3.43	1541.01	1544.44	4.42	1832.61	1837.02	4.45	2006.72	2011.17
225.08	698.68	923.77	290.46	806.94	1097.40	292.43	910.52	1202.95
6717.96	490.75	7208.71	5720.76	519.82	6240.58	8813.75	640.89	9454.64
31.64	495.27	526.91	40.83	527.07	567.90	41.10	646.74	687.83
208.79	288.91	497.69	269.43	324.14	593.58	271.27	376.77	648.04
49.32	122.47	171.79	63.63	147.57	211.20	64.08	159.42	223.50
2393.97	178.76	2572.73	3089.34	194.30	3283.65	3110.48	233.31	3343.79
164.12	245.37	409.49	211.79	275.13	486.92	213.24	319.99	533.22
0046.51	9142.10	19188.61	10016.14	10338.99	20355.13	13138.49	11920.18	25058.64

TABLE

Percentage Distribution of Direct & Indirect Demand of (1973-74 to

S. No.	Sector	1973-74			1974-75		
		Direct demand	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*
		(1)	(2)	(3)	(4)	(5)	(6)
1.	Food items	2.29	2.28	2.28	1.98	2.27	2.13
2.	Minerals	—	12.93	7.10	—	13.41	7.07
3.	Edible oils	—	4.52	2.48	—	4.54	2.40
4.	Beverages	—	0.29	0.15	—	0.28	0.15
5.	Narcotics	—	0.92	0.51	—	0.87	0.46
6.	Cotton textiles	0.92	0.83	0.87	0.79	0.81	0.80
7.	Woollen textiles	0.10	0.13	0.12	0.08	0.14	0.11
8.	Jute textiles	0.23	5.61	3.19	0.20	6.59	3.57
9.	Wood & wood products	0.01	2.04	1.12	0.01	1.98	1.05
10.	Paper and paper products	0.54	6.08	3.58	0.46	5.97	3.37
11.	Leather & leather products	0.27	0.42	0.35	0.23	0.41	0.33
12.	Rubber & rubber products	—	18.79	10.31	—	17.76	9.37
13.	Petroleum products	0.06	18.70	10.28	0.05	18.21	9.63
14.	Chemicals & chemical products	3.89	7.99	6.14	3.35	7.90	5.75
15.	Construction materials	42.46	4.65	21.71	50.47	4.84	26.41
16.	Metal & non-metal products	0.55	4.74	2.85	0.47	4.92	2.82
17.	Non-electric machinery	3.61	3.11	3.33	3.11	3.12	3.11
18.	Electric machinery	0.85	1.53	1.22	0.73	1.48	1.13
19.	Gas, electricity, water supply & communications	41.38	1.79	19.65	35.62	1.84	17.80
20.	Other services	2.84	2.64	2.73	2.44	2.65	2.55
	Total	100.00	100.00	100.00	100.00	100.00	100.00

Note: Totals may not tally due to rounding off.

7.8

the Gujarat Government among the Different Sectors 1977-78)

(Per cent)

1975-76			*1976-77*			*1977-78*		
Direct demand	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*	*Direct demand*	*Indirect demand*	*Total demand*
(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.32	2.24	1.76	1.71	2.26	1.99	1.31	2.24	1.75
—	14.68	7.00	—	13.86	7.04	—	14.71	7.00
—	4.59	2.19	—	4.56	2.32	—	4.59	2.18
—	0.28	0.13	—	0.28	0.14	—	9.28	9.28
—	0.73	0.35	—	0.82	0.42	—	0.72	0.34
0.53	0.76	0.64	0.68	0.79	0.74	0.52	0.75	0.63
0.06	0.17	0.11	0.07	0.15	0.11	0.06	0.17	0.11
0.13	9.27	4.49	0.17	7.55	3.92	0.13	9.31	4.50
0.01	1.81	0.87	0.01	1.92	0.98	0.01	1.81	0.87
0.31	5.68	2.87	0.40	5.87	3.18	0.31	5.67	2.86
0.16	0.40	0.27	0.20	0.41	0.31	0.15	0.40	0.27
—	14.97	7.13		16.77	0.98	—	14.93	7.10
0.03	16.86	8.05	0.04	17.73	8.52	0.03	16.83	8.03
2.24	7.64	4.81	2.90	7.80	5.39	2.23	7.64	4.80
66.87	5.37	37.27	57.12	5.03	30.66	67.08	5.38	37.73
0.31	5.42	2.75	0.41	5.10	2.79	0.31	5.43	2.74
2.18	3.16	2.59	2.69	3.14	2.92	2.06	3.16	2.59
0.49	1.34	0.90	0.64	1.43	1.04	0.49	1.34	0.89
23.72	1.96	13.41	30.84	1.88	16.13	23.67	1.96	13.34
1.63	2.68	2.13	2.11	2.66	2.39	1.62	2.68	2.13
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

of proportions to total and then was pre-multiplied by the Leontief inverse to obtain the desired output multipliers. Table 7.6 gives the sectoral multiplier for each of the sectors during the period 1973-74 to 1977-78. The first column under each year gives the percentage shares of the expenditures of the State government on different commodities. These percentage shares represent the direct impact. The entries in the second column indicate the indirect impact, and the entries in the third column indicate the total of direct and indirect impact. Several interesting results may be noted:

i. The output multiplier for the year 1977-78 works out to 1.9, i.e., if Gujarat government spends Rs. 100 crore on goods and services, the total demand for output in the economy would go up by Rs. 191 crore (Table 7.6). Thus the commodity expenditure of Rs. 131.38 crore incurred in 1977-78 would generate an additional indirect demand worth 119.20 crore making a total demand worth Rs. 250.58 crore (Table 7.7).

ii. The pattern of indirect demand for goods and services seems to have little relationship with the direct demand for goods and services. This is evident from the fact that while the major portion of the direct demand is for construction and gas, electricity, water supply and communication, the major portion of indirect demand is for minerals, petroleum products, chemicals and chemical products, jute and textiles and construction materials;

iii. The pattern of indirect demand arising from direct demand falls into three categories: (i) food items, cotton textiles, woollen and silk textiles, jute textiles, wood and wood products, paper and paper products, leather and leather products, chemicals and chemical products, metal and non-metal products, non-electric machinery and transport equipment, electric machinery and other services, have high indirect demand although direct demand for them is low (i.e., the ratio of indirect demand to direct demand is more than one); (ii) construction materials, gas, electricity, water supply and communications have low indirect demand although direct demand for them is high (i.e., the ratio of indirect demand

to direct demand is less than one); and (iii) minerals' edible oils, beverages, tobacco and tobacco products rubber and rubber products, are subject to high indirect demand although direct demand for them is nil;

iv. The output multiplier has declined from 2.22 in 1973-74 to 2.12 in 1974-75, 1.99 in 1976-77 and 1.91 in 1977-78. This means that during those four years, indirect demand created by purchases of the government has been declining. Since we have used the same input-output matrix and since we have kept the pattern of all expenditures other than construction the same for all the years, the fall in the value of the multiplier should be traced to the increase in the proportion of construction expenditure.

NOTES

1. In respect of Maharashtra, Madhya Pradesh and Rajasthan, they claim to have identified specific items of expenditure accounting for 76 per cent, 88 per cent and 84 per cent, respectively, of the expenditure of the concerned governments.
2. For more details see Appendix D.

8. Summary of Findings

Introduction

THE main objectives of the study are to analyse the growth of the Central government expenditure in relation to such major variables as national income, population and prices, to assess the relative growth of expenditure under different functional and economic categories, to work out the commodity composition of the Central government expenditure and to measure its total impact on sectoral output. Among the factors that affect the growth of government expenditure, an attempt has been made to isolate the influence of change in the prices of commodities bought, the volume of commodities bought, growth in employment, change in real wages and change in money wages to counter inflation. The analysis of the impact of government's commodity expenditure on the economy is also carried out in relation to the expenditure of one State government, namely, Gujarat, as a case study.

Trends in Expenditure

During the period 1950-51 to 1977-78, the Central government expenditure increased by 30 times in nominal terms, $8\frac{1}{2}$ times in real terms and 5 times in per capita real terms. Government expenditure in nominal terms as a percentage of GNP increased from 5.22 in 1950-51 to 16.86 in 1977-78; in real terms this ratio increased from 5.5 per cent to 16.75 per cent during the same period (see p. 23).

Factors Contributing to the Growth of Central Government Expenditure

During 1950-51 to 1965-66, 40 per cent of the increase in the total Central government expenditure was on account of changes in prices and 60 per cent was on account of the increase in the quantity of goods and services purchased. During 1966-67 to 1977-78, as much as 71 per cent of the increase was on account of changes in prices and only 29 per cent of the

increase was on account of the increase in the quantity of goods and services purchased.

During the period 1950-51 to 1965-66, in regard to goods and services (on current account) the relative contributions of volume increase and price rise were almost equal (49 and 51 per cent) and in regard to capital formation, equal; in regard to transfers, the contribution of volume increase formed the major part of the increase. By contrast, during the period 1966-67 to 1977-78, much of the increase in expenditure was accounted for by the price rise: the increase in the volume of goods and services expenditure contributed only 18 per cent, that of capital formation 1.3 per cent and that of loans and investments 22 per cent. The share of volume increase was higher in the case of transfers but still less than 40 per cent. If we take all the five components together, it is seen that, during the first period considered, 60.9 per cent of the increase in the five components of expenditure was due to the increase in real expenditure and 39.1 per cent was reflective of price rise. On the other hand, during the second period, as much as 73.3 per cent of the increase in nominal expenditure was reflective of price rise and only 26.7 per cent represented the increase in real expenditure. Thus the greater part of the additional resources mobilised by the Central government went to maintain the real value of the base year expenditure in the face of price rise.

As regards the increase in the expenditure on wages and salaries of the Civil Departments, it has been estimated that 59 per cent of it was accounted for by inflation adjustments (intended or unintended), 28 per cent by the increase in real wages and 13 per cent by the increase in employment.

Structure of Central Government Expenditure

There has been a significant change in the composition of Central government expenditure with a pronounced increase in the share of expenditure on economic services. In terms of economic classification, the shares of transfer payments and financial investments and loans went up, while that of final outlays went down during the period under study. This leads to the conclusion that the expenditure policy of the Central government has been in favour of decentralisation in spending.

Expenditure on final outlays (consumption expenditure and capital formation) at current prices has grown continuously, but in per capita real terms it has remained roughly constant for the past 14 years. The main reason for this constancy seems to be the sluggish growth in direct capital formation.

As of 1977-78, transfer payments (current and capital) constituted 36 per cent of Central government expenditure at current prices, while current transfers and capital transfers accounted for 31.22 and 5.03 per cent, respectively. Subsidies, an important component of transfers, increased tremendously (49 times in nominal terms and 15 times in real terms) during the period under study. As of 1977-78 subsidies constituted 8.59 per cent of the Central government expenditure and 23.69 per cent of transfer payments (current and capital transfers combined) at current prices.

As of 1977-78, a substantial portion of subsidies (59.5 per cent) was given under "economic services", namely, agriculture, industry, transport and communication, while social services get very little. Among the economic services, industry including export promotion got the major share.

Between 1957-58 and 1965-66, the relative shares in total Central government expenditure of defence services, economic services and social services increased, while those of general services other than defence and unallocable services decreased. In the period 1966-67 to 1972-73, there was no marked shift in the shares of various functions. However, in the period 1973-74 to 1977-78, there was an upward shift in the share of economic services and a downward shift in that of defence services and near *status quo* in those of general services other than defence, social services and unallocable services. Particularly noteworthy is the fact that the share of economic services increased from 39 per cent in 1973-74 to 50 per cent in 1977-78, while that of defence services declined from 20 to 17 per cent.

Income Elasticities of Expenditure

During the period 1965-66 to 1977-78, the elasticity of per capita government expenditure under all the functional heads considered with respect to per capita GNP at current prices was greater than unity. The co-efficients of the elasticities of the

different categories of expenditure did not differ much, the range falling between 1.01 for education and 1.51 for medical and public health. If the elasticities are computed for per capita expenditure in real terms with reference to per capita GNP in real terms, they are found to diverge as between different kinds of expenditures. It is also found that the elasticities computed in real terms are higher than those computed in nominal terms except in the case of education. The income elasticity of per capita total current expenditure including defence was 1.17 in nominal terms and 1.83 in real terms.

Commodity Composition of Central Government Expenditure

a. *Direct Demand*

If Central government expenditure excluding departmental undertakings is considered, the largest share of expenditure (17.6 per cent) goes to construction materials (mainly road dressing and roof materials). Next comes the share of non-electrical machinery and transport equipment (14.9 per cent) followed by the shares of food items and petroleum products (12.2 and 12.0 per cent, respectively). Thus the above-mentioned four groups of items account for 56.7 per cent of total expenditure. Other groups whose shares exceed 5 per cent are chemicals and chemical products, metal and non-metal products, electrical machinery and cotton textiles. If these are added to the first four groups, the combined share will amount to 81.2 per cent. Thus over 80 per cent of the total Central government expenditure creates direct demand for the products of just eight broad groups of industries.

If Central government expenditure excluding departmental undertakings is considered, the largest share of expenditure (19.7 per cent) goes to non-clectrical machinery and transport equipment. Next comes the share of contruction material (14.6 per cent), followed by petroleum products (13.5 per cent), food items (9.5 per cent), metals, non-metals and products (7.2 per cent) and minerals (6.4 per cent). These six broad groups of items constitute 71 per cent of government purchases.

b. *Direct and Indirect Demand*

The aggregate output multiplier of the Central government

commodity expenditure works out to approximately 2.6. That is, if the government spends Rs. 100 crore on goods and services the total demand for output in the economy would go up by Rs. 260 crore.

While the major portion of direct demand is for machinery and transport equipment, petroleum products, construction materials and food products, the major portion of indirect demand is for minerals (22.24 per cent) including petroleum crude and coal, edible oils (10.75 per cent) chemicals and chemical products (20.8 per cent), metal and non-metal products (15.40 per cent) and petroleum products (10.87 per cent)

The demand for output as a result of government purchases constitutes approximately 8 per cent of the total supply of goods and services in the economy. Of this, the direct demand by the government constitutes only 3 per cent and induced demand approximately 5 per cent.

The pattern of total (direct+indirect) demand generated resembles little that of direct demand by government. Three patterns have emerged:(i) commodities for which the ratio of indirect demand to direct demand is high; (ii) commodities for which the ratio of indirect demand to direct demand is low; (iii) commodities for which the ratio of direct to indirect demand is near unity. Prominent among the first one are coal and other minerals, edible oils, tobacco and tobacco products, beverages, wood and wood products, paper and paper products, rubber products, public utilities such as gas, electricity, water supply and communications, as well as other services. Other sectors that fall into this category are jute textiles, leather and leather products, metal and non-metal products. These are intermediate types of commodities which are needed in the production of most of the commodities. Thus, indirect demand for them is high though government does not purchase them directly. The second one includes woollen and silk textiles, food, non-electrical machinery and transport equipment. These are mainly final consumption goods. In the third category fall petroleum products, construction materials and electrical machinery. In the resultant pattern of total demand, minerals, petroleum products, chemicals and chemical products, machinery and transport, construction,

metal and non-metal products and food items come out to be prominent.

Though the direct government demand for imports is relatively small, the indirect demand for imports generated in the economy as a result of government purchases is sizeable.

Commodity Composition of Gujarat Government Expenditure

a. *Direct Demand*

Three items, namely, construction materials; gas, electricity, water supply and communication; and chemicals and chemical products accounted for more than 90 per cent of the government purchases in 1977-78. Other products like jute textiles, woollen and silk textiles, wood and wood products, paper and paper products, leather and leather products accounted for negligible proportions.

b. *Direct and Indirect Demand*

The output multiplier of the Gujarat government purchases is somewhat lower than the output multiplier of the Central government purchases. It is 1.91 for the year 1977-78. That is, if Gujarat government spends Rs. 100 crore on goods and services, the total demand for output in the economy would go up by Rs. 191 crore. The indirect demand arising from government expenditure for petroleum products, wood products, jute and textiles and metal and non-metal products is high relatively to the direct demand for them by the government. But the direct demand for construction and gas, electricity, water supply and communications is low relatively to the indirect demand for them arising from government purchases.

The aggregate output multiplier has declined during the past five years: from 2.22 in 1973-74 to 1.91 in 1977-78. Since we have used the same input-output matrix and since we have kept the pattern of all expenditures other than construction the same for all the years, the fall in the value of the multiplier should be traced to the increase in the proportion of construction expenditure.

Future Research

As stated at the outset, in order to gain an adequate idea of

the impact of public expenditure in the country, it would be necessary to include in the study the expenditures of at least the Central and State governments. For various reasons, it has not been possible to cover the State governments in the present study. This is indeed a limitation of the study. Hence, our attempt may be looked upon as constituting the first stage of an extended programme of work. It may be also recalled that since a proper functional break-down of expenditure was not available even for the Central government for the years prior to 1966-67, our analysis of the relative growth of expenditures under different functional categories could not be extended to cover the entire period of study. The agenda of future research in this area should, *inter alia*, aim to make a more comprehensive study of public expenditure through the inclusion of the expenditures of State governments and tracing the growth of functional categories of expenditure over a somewhat longer span of time.

APPENDIX A

METHODOLOGY ON AGGREGATION OF INPUT-OUTPUT MATRIX

The latest Input-output Table is for 1977-78 and is an 89-sector, commodity by industry matrix. Since the 89-sector matrix is unwieldy for our purpose, we have aggregated the matrix into 20 sectors, so that the multipliers will be sizeable and amenable for analysis (Table A.I). They are : (i) Food; (ii) Minerals; (iii) Edible oil; (iv) Beverages; (v) Tobacco and tobacco products; (vi) Cotton textiles; (vii) Woollen, silk, art silk textiles; (viii) Jute textiles; (ix) Wood and wood products; (x) Paper and paper products; (xi) Leather and leather products; (xii) Rubber and rubber products; (xiii) Petroleum products; (xiv) Chemicals and chemical products; (xv) Construction materials; (xvi) Metal and non-metal products; (xvii) Machinery and transport equipment excluding electrical machinery; (xviii) Electrical machinery; (xix) Gas, electricity, water supply and communications, and (xx) other services. The commodities falling in each of these 20 sectors are detailed in Table A.1.

It may be noted that the adoption of such an input-output. model (be it 89-sector model or 20-sector model) involves the assumption that at the individual industry level, only one commodity is produced by each of the industries.

TABLE A.1

Details of Aggregation of Input-Output Matrix

Sl. No.	*Aggregated sector*	*Sl. No. of Input-output table*	*Commodity*
	(1)	(2)	(3)
1.	Food items	1.	Paddy
		2.	Wheat
		3.	Jowar
		4.	Bajra
		5.	Other cereals
		6.	Pulses
		7.	Sugarcane

TABLE A.1 (Contd.)

(1)	(2)	(3)
	8.	Jute
	9.	Cotton
	10.	Plantations
	11.	Other crops
	12.	Milk and milk products
	13.	Other animal husbandry
	14.	Forestry and logging
	15.	Fishing
	20.	Miscellaneous food products
	21.	Sugar
	22.	Gur and khandsari
2. Minerals	16.	Coal and lignite
	17.	Petroleum and natural gas
	18.	Iron ore
	19.	Other minerals
3. Edible oils	23.	Hydrogenated oil vanaspati
	24.	Edible oil excluding vanaspati
4. Beverages	25.	Tea and coffee
	26.	Other beverages
5. Tobacco and tobacco products	27.	Tobacco manufactures
6. Cotton textiles	28.	Cotton textiles excluding handloom and khadi
	29.	Cotton textiles—handloom and khadi
	33.	Readymade garment textiles
	34.	Miscellaneous textile products
7. Woollen and silk textiles	30.	Woollen and silk fabrics
	31.	Art silk fabrics
	35.	Carpet weaving
8. Jute textiles	32.	Jute textiles
9. Wood and wood products	36.	Wood products
10. Paper and paper products	37.	Paper, paper products, newsprints
	38.	Printing and publishing
11. Leather and leather products	39.	Leather and leather products
	40.	Leather footwear
12. Rubber and rubber products	41.	Rubber products
13. Petroleum products	42.	Plastics and synthetic rubbers
	43.	Petroleum products
	44.	Mineral, coal, petrol products
14. Chemicals and chemical products	45.	Inorganic heavy chemicals
	46.	Organic heavy chemicals

TABLE A.1 (Contd.)

(1)	(2)	(3)
	47.	Chemical fertilizers
	48.	Insecticides, fungicides
	49.	Drugs and pharmaceuticals
	50.	Soaps and glycerine
	51.	Cosmetics
	52.	Man-made fibres
	53.	Other chemicals
	54.	Refractories
15. Construction materials	55.	Cement
	79.	Construction
16. Metals and non-metal products	56.	Other non-metallic products
	57.	Iron and steel, ferro-alloys
	58.	Iron and steel castings and forging
	59.	Iron and steel structure
	60.	Non-ferrous metal including alloys
	61.	Metal products
17. Non-electrical machinery and transport equipments	62.	Tractors and other agricultural implements
	63.	Machine tools
	64.	Office, domestic and communication equipments
	65.	Other non-electric machinery
	72.	Ships and boats
	73.	Rail equipments
	74.	Motor vehicles
	75.	Motor-cycles and bicycles
	76.	Other transport equipments
	77.	Watches and clocks
	78.	Miscellaneous manufacturing industries
18. Electrical machinery	66.	Electrical motors
	67.	Electrical cables and wires
	68.	Batteries
	69.	Electrical household goods
	70.	Communication electronics equipments
	71.	Other electrical machinery
19. Gas, electricity, water supply and communications	80.	Gas, electricity, water supply
	83.	Communications
20. Other services	81.	Railways

TABLE A.1 (Contd.)

(1)	(2)	(3)
	82.	Other transports
	84.	Trade, storage and housing
	85.	Banking and insurance
	86.	Real estate and owner dwelling
	87.	Education
	88.	Medical health
	89.	Other services.

APPENDIX B

BACKGROUND NOTE ON CENTRAL STORES PURCHASE ORGANISATION

Prior to 1964, the responsibility for the procurement of stores required by various departments of the State government was wholly vested with the Department of Health and Industries operating through its purchase organisation, namely, the Directorate of Industries and Central Purchasing Office. This comprised:

i. purchase wing, (responsible for the purchase of stores);
ii. inspecting wing, (responsible for the inspection of stores purchased by the purchase wing, preparation of specifications and drawings, maintenance of samples of stores, technical advice to indentors, assistance to the purchase wing in the scrutiny of indents, and reporting upon the capacity of new suppliers); and
iii. coordination wing (responsible for compilation of indents, maintenance of samples received from the Indenting Departments and contractors, registration of firms as approved suppliers, and general establishment matters.

The procurement of all classes of stores was arranged by the Central Stores Purchase Organisation (CSPO). The indents (in triplicate) were submitted to the CSPO along with the requisite certificate of financial sanction. In the case of Plan schemes, however, the indentor had to submit a Plan scheme certificate stating that the financing sanction had been asked for. It was necessary that complete technical particulars of the required stores had to be specified fully and correctly in the indents. Further, the indentors had to indicate clearly in their indents the specific delivery date and place where the stores were required. For the sake of convenience, the indenting officers were asked to bulk their annual requirement as far as possible.

It was experienced that in certain cases suppliers did not respond favourably and, subsequently, failed to supply the

goods within the stipulated time. One reason that might be attributed to this was perhaps the fact that the rate contract had become quite obsolete. Moreover, there was no binding on the parties to supply the items at the contract rate. The CSPO used to keep some security deposits from the suppliers for the risk purchases. If the party failed in the supply of items within that time, the CSPO had powers to procure the stores from the open market and the difference in their prices, if any, could be deducted from the security of the supplier with whom the order had been placed earlier.

If the supplier was registered with either CSPO or National Small-Scale Industrial Corporation or the DGS & D, then 3 per cent of the total value of contract was taken as the security, provided the value of the contract exceeded Rs. 25,000. If the value of the contract did not exceed Rs. 25,000 then no security was necessary. For non-registered suppliers, the security for any value of the cash was 5 per cent of the value. In the event of a firm failing to furnish the said security within the period, then that firm got black-listed. If the firm was registered, then its registration was liable to cancellation.

In this way, on account of the formalities observed by the CSPO, procurement of the stores required used to get delayed (before 1964). With a view to expediting these purchases certain procedural amendments were made in June 1964. Firstly, the items for which rate or running contracts had been entered into either by the DGS&D or the CSPO, could be purchased without placing the indents with the CSPO. Such purchases could be operated directly by the Direct Demanding Officers. Secondly, Departmental Purchase Committees were appointed by the State Government and were given freedom to purchase items of special nature. These DPCs were empowered to make purchases upto a ceiling. The ceiling differed from department to department. This practice continues even today. The Departmental Committee consists of a representative from the CSPO, the financial adviser and the head of the concerned department. The first such Committee was formed for the Directorate of Manpower, Employment and Training. By the end of 1977-78, in all, eight Departmental Committees were in operation in the State of Gujarat. The list of the DPCs along with the date of the Government G.R. are given in Table B.I.

TABLE B.I

Departmental Purchase Committees on March 31, 1978

Sl. No.	*Name of the Departmental Purchase Committee*	*No. and date of the goverment G.R. constituting the committee*
1.	Directorate of Manpower Employment and Training, Ahmedabad	Education and Labour Department No. TRM-3362-D, dated 7.11.1962
2.	E.S.I. Scheme, Ahmedabad	Panchayat and Health Department G.R. No. ESI-1066-3288-D, dated 24.12.1966 as reconstituted by Education and Labour Department G.R. No. TBK-7774/56587-B, dated 20.9.1974
3.	Forensic Science Laboratory, Ahmedabad	Home Department No.SB-11/FSL/1368/5707, dated 5.10.1968
4.	Directorate of Health and Medical Services, Ahmedabad	P & H Department No.HSP-1070-3644 Chh, dated 17.6.1970
5.	P.W.D. Purchase Committee for Kadana, Dharoi and Watrak Projects	P.W.D. No. KDN/6171/D-2174-K-3, dated 27.10.1971
6.	Directorate of Ports, Ahmedabad	P.W.D. No. WKS-7372-70395-M, dated 27.8.1972
7.	Directorate of Technical Education, Ahmedabad	E & L Department No. TEM/1173/14951 GN, dated 2.4.1974
8.	Gujarat Engineering Research Institute, Baroda,	P.W.D. No.STN-5975/48971/81/Q, dated 1.9.1975
9.	Chief Conservator of Forests, Baroda	A.F. Co-op.Department No.FYP/1975/G, dated 5.5.1976
10.	Accelerated Rural Water Supply Scheme and other programmes, Ahmedabad	Health and Family Welfare Department G.B. No. MM-1077-6113-P, dated 17.10.1977

APPENDIX C

SOURCES OF DATA

The sources of data used are as given below:

Central government expenditure. (a) All the series of the Central government expenditure by economic and functional categories are taken generally from *An Economic and Functional Classification of the Central Government Budget* published annually by Economic Division, Department of Economic Affairs, Ministry of Finance, Government of India; (b) However, for 1957-58, we have taken the figures from *Economic-Functional Classification of Central and State Government Budgets 1957-58*, published by NCAER; (c) Expenditure on functional categories for the period 1950-51 to 1965-66 is taken from *Indian Economic Statistics: Public Finance*, brought out in a mimeographed form, annually, by Economic Division, Department of Economic Affairs, Ministry of Finance, Government of India; and for the period 1965-66 to 1977-78, it is taken from an *Economic and Functional Classification of the Central Government Budget* published annually by Economic Division, Department of Economic Affairs, Ministry of Finance, Government of India.

Combined expenditure. The combined expenditure of the Central government, the State governments and the Union Territories is taken from *Indian Economic Statistics: Public Finance.*

Commodity composition of the Central government expenditure. For arriving at the commodity composition of the Central government expenditure, the sources used are (i) *Detailed Demands for Grants*, (ii) *Directory of Government Purchases*, published by the DGS&D (iii) *An Economic and Functional Classification of the Central Government Budget*, (v) *Annual Reports* of Posts and Telegraphs, (vi) *Annual Reports and Performance Budgets* of different Ministries; and (vii) data supplied by DGS&D.

Gross National Product at market prices. We have taken this series from *National Accounts Statistics*, published by the Central Statistical Organisation, Government of India, except

for the years 1950-51 to 1959-60 for which we have built up the estimates on the basis of national accounts figures.

Price series relevant for deflation. The sources for building up the various price series are as follows:

i. *Implicit price index of compensation of employees of government administration.* This has been constructed on the basis of the relevant data in (a) *Estimates of National Income 1948-49 to 1962-63*, February 1964; (b) *National Accounts Statistics*, October 1976 and (c) *National Accounts Statistics*, January 1979, published by the CSO, Department of Statistics, Government of India.

ii. *Price deflator of government purchases.* This has been obtained from DGS&D, Government of India.

iii. *Implicit price index of gross capital formation.* This has been constructed by us on the basis of the relevant data in (i) *National Accounts Statistics 1960-61 to 1974-75*, October 1976 and (ii) *National Accounts Statistics, 1970-71 to 1976-77*, Jannuary 1979, published by the CSO, Government of India.

iv. *Implicit price index of GDP at factor cost.* This has been built on the basis of CSO's publications, *Estimates of National Income*, February 1964, and *National Accounts Statistics*, October 1976 and January 1979.

Commodity composition of Gujarat Government expenditure. The sources are as follows:

i. Government of Gujarat, *Economic and Functional Classification of the Gujarat Government Budget*, Bureau of Economics and Statistics, Gandhi Nagar, various issues.

ii. Government of Gujarat, *Detailed Demands for Grants* of the various Departments.

iii. Information supplied by the Central Stores Purchase Organisation, Government of Gujarat.

iv. Information supplied by the Departmental Purchase Committees, Government of Gujarat.

v. Government of Gujarat (1979-80), *Budget Document.*

STATISTICAL APPENDIX

TABLE A.1

Combined Government Expenditure of Centre, States and Union Territories: At Current Prices (1950-51 to 1977-78)

Year	Total Expenditure		As per cent of GNP	
	Excluding loans (Rs. crore)	Including loans (Rs. crore)	Excluding loans	Including loans
	(1)	(2)	(3)	(4)
1950-51	855.27	883.74	8.86	9.15
1951-52	996.84	1037.22	9.86	10.26
1952-53	902.55	932.72	9.17	9.48
1953-54	928.68	979.36	8.80	9.28
1954-55	1134.91	1194.55	11.59	12.20
1955-56	1271.71	1375.29	12.23	13.22
1956-57	1515.54	1614.16	12.65	13.47
1957-58	1869.98	1990.11	15.42	16.41
1958-59	1899.43	2094.50	13.97	15.40
1959-60	1998.36	2332.30	14.13	16.49
1960-61	2247.99	2627.05	15.04	17 58
1961-62	2514.35	2847.22	15.83	17.93
1962-63	3020.03	3475.51	17.77	20.46
1963-64	3640.09	4189.09	18.63	21.43
1964-65	3960.08	4683.43	17.30	20.45
1965-66	4460.99	5397.88	18.63	22.54
1966-67	5001.54	6073.48	18.23	22.14

TABLE A.1 (Contd.)

	(1)	(2)	(3)	(4)
1967-68	5276.51	6151.32	16.47	19.20
1968-69	5544.53	6285.10	16.79	19.03
1969-70	6241.71	6683.26	17.06	18.27
1970-71	7049.71	7665.00	17.58	19.11
1971-72	8568.82	9152.90	19.82	21.17
1972-73	9382.51	10211.75	19.66	21.40
1973-74	10357.69	11173.58	17.60	18.98
1974-75	12457.47	13920.99	17.91	20.01
1975-76	15181.27	17162.28	20.62	23.31
1976-77	17053.14	19670.99	21.48	24.78
1977-78	18716.03	21015.64	21.06	23.64

Note: *Col. 1:* Excludes—(a) loans and advances (net) by the Centre and the States, (b) self balancing items and (c) transfer to funds.

Col. 2: Includes—(a) loans and advances (net) by the Centre and the States, (b) self balancing items and (c) transfer to funds.

Source: Government of India, Department of Economic Affairs, Ministry of Finance, *Indian Economic Statistics, Public Finance*, various issues.

TABLE A.2

Price Deflators: 1950-51 to 1977-78
1970-71 = 100

Year	*Implicit price index of compensation of employees in public administration and defence*	*Price index of government purchases supplied by DGS&D*	*Price index of government purchases estimated by us*	*Implicit price index of gross capital formation in the public sector*	*Implicit price index of GDP at factor cost*	*Implicit price index of Central government consumption expenditure*
	(1)	(2)	(3)	(4)	(5)	(6)
1950-51	54.12	45.70*	46.70	42.53	52.51	49.80
1951-52	55.46	48.00*	70.30	45.36	53.35	51 84
1952-53	56.23	50.42*	46.50	44.76	50.49	53.48
1953-54	57.55	52.96	64.90	45.20	50.90	55.54
1954-55	58.10	55.11	66 00	47.68	45.54	56 79
1955-56	61.73	57.35	45.80	46.62	46.65	59.86
1956-57	61.91	61.70	49.30	48.46	51.08	61 81
1957-58	61.74	62.10	50.90	48.53	52.09	61.93
1958-59	63.98	63.80	51.40	55.55	54.06	63.89
1959-60	65.32	63.80	52.60	56.43	55.08	64.56
1960-61	69.96	66.60	57.30	59.16	55.02	68.46

TABLE A 2 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)
1961-62	72.49	66.80	58.50	61.40	56.23	69.70
1962-63	72.22	68.80	64.40	63.16	58.57	70.41
1963-64	75.53	72.00	66.80	66.28	63.72	73.41
1964-65	77.93	74.20	73.70	68.92	69 47	75.89
1965-66	84.10	78.40	79.60	73.43	75.99	80.99
1966-67	88.39	85.80	87.20	82.26	86.71	87.04
1967-68	96.23	88.90	91.20	86.71	93.75	92.57
1968-69	98.92	90.30	92.60	88.60	93.33	94.49
1969-70	99.67	94.30	97.50	93.43	97.12	96.94
1970-71	100.00	100.00	100.00	100.00	100.00	100.00
1971-72	102.58	107.30	105.20	105.74	105.44	104.99
1972-73	106.07	112.10	117.60	114.42	117.50	109.14
1973-74	112.12	125.30	151.20	129.70	139.16	118.13
1974-75	136.68	169.20	212.60	163.65	161.57	149.15
1975-76	143.93	177.60	222.60	176.25	154.26	157.74
1976-77	146.62	181.00	233.00	179.34	165.16	161.70
1977-78	157.92*	190.10*	244.00	179.29	170.85	171.97

*Figures have been estimated.

TABLE A.3

Central Government Expenditure by Economic Categorics at Current Prices (1951 to 1978)

(Ks. crore)

Year	*Final outlays*							*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure (7+10+11)*
	Government consumption expenditure			*Gross capital formation*								
	Wages and salaries	*Commodities and services*	*Total Central government consumption (1+2)*	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation (4+5)*	*Total final outlays (3+6)*	*Current transfers*	*Capital transfers*	*Total transfers (8+9)*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	124.10	110.60	234.70	79.50	0.60	80.10	314.80	110.90	6.00	116.90	72.00	503.70
1951-52	127.90	104.30	232.20	90.00	15.40	105.40	337.60	168.40	10.80	179.20	93.30	610.10
1952-53	132.10	106.00	238.10	85.20	—16.70	68.50	306.60	145.40	9.60	154.00	124.50	585.10
1953-54	143.20	103.90	247.10	107.10	—21.20	85.90	333.00	137.00	11.50	148 50	179.50	661.00
1954-55	147.00	107.80	254.80	134.20	65.60	199.80	454.60	155.60	43.30	198.90	267.00	920.50
1955-56	157.50	111.60	269.10	177.40	—24.70	152.70	421.80	202.80	48.40	251.30	301.40	974.50
1956-57	169.90	146.20	316.10	234.00	13.80	247.80	563.90	196.80	48.50	245.20	308.40	1117.50
1957-58	185.40	212.80	398.20	268.70	59.00	327.70	725.90	279.50	31.90	311.40	513.70	1551.00
1958-59	196.60	215.30	411.90	287.50	37.20	324.70	736.60	292.90	42.20	335.10	567.50	1639.20
1959-60	203.60	198.70	402.30	270.10	—33.20	236.90	639.20	371.40	58.10	429.50	640.60	1709.30
1960-61	245.60	187.40	433.00	302.10	5.40	307.50	740.50	426.50	68.70	495.20	570.00	1805.70

TABLE A.3 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961-62	253.20	224.60	477.84	331.40	11.70	343.10	820.90	457.10	74.00	531.10	687.20	2039.20
1962-63	318.20	342.00	660.20	424.90	7.20	432.10	1092.30	532.90	90.70	623.60	816.60	2532.50
1963-64	410.80	592.00	1002.80	498.70	53.10	551.80	1554.60	567.70	97.00	664.70	987.30	3206.60
1964-55	468.30	537.80	1006.10	551.30	46.40	597.70	1603.80	671.40	107.30	778.70	1106.40	3488.90
1965-66	523.40	585.70	1109.10	549.10	—28.70	520.40	1629.50	753.80	131.90	885.70	1478.40	3993.60
1966-67	590.40	621.70	1212.10	506.50	—6.30	500.20	1712.20	1053.90	141.70	1195.60	1757.50	4665.40
1967-68	666.00	613.80	1279.80	455.40	11.70	467.10	1746.90	1112.10	137.10	1249.70	1501.10	4497.70
1968-69	705.70	679.90	1385.60	448.70	—172.80	275.90	1661.50	1048.00	128.10	1176.10	1688.10	4525.80
1969-70	745.60	731.30	1476.90	430.30	—37.20	393.10	1870.00	1163.00	191.70	1354.70	1700.00	4924.70
1970-71	839.20	830.20	1669.40	485.00	34.30	519.30	2188.70	1239.10	193.30	1432.40	1955.50	5576.60
1971-72	981.60	1072.90	2054.50	566.10	31.30	597.40	2651.90	1722.70	283.80	2006.50	2051.30	6709.70
1972-73	1079.80	1182.30	2262.10	664.80	12.30	677.10	2939.20	1851.50	428.60	2280.10	2630.00	7849.30
1973-74	1193.10	1119.40	2312.50	711.40	70.90	782.30	3094.80	2059.50	356.30	2415.00	2620.20	8130.80
1974-75	1619.80	1247.00	2866:80	822.60	404.80	1227.40	4094.20	2449.80	375.00	2824.80	2865.90	9784.90
1975-76	1856.50	1592.70	3449.20	949.60	254.70	1204.30	4653.50	3017.70	535.70	3553.40	3829.60	12036.50
1976-77	1835.20	1770.70	3605.90	1089.70	22.10	1111.30	4717.70	3944.70	501.90	4446.60	3985.80	13150.10
1977-78	1902.50	1775.70	3678.20	1118.50	-- 11.30	1107.20	4785.40	4677.90	754.60	5432.50	4767.70	14985.60

TABLE A.4

Central Government Expenditure by Economic Categories at 1970-71 Prices (1951 to 1978)

(*Rs. crore*)

Year	*Final outlay*							*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure (7+10+11)*
	Government consumption expenditure				*Gross capital formation*							
	Wages and salaries	*Commodities and services*	*Total Central government consumption expenditure (1+2)*	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation (4+5)*	*Total final outlays (3+6)*	*Current transfers*	*Capital transfers*	*Total transfers (8+9)*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	329.31	242.01	471.32	186.93	1.41	188.34	659.66	211.20	14.11	225.31	137.12	1022.09
1951-52	230.62	217.29	447.91	198.41	33.95	232.36	680.27	315.65	23.81	339.46	174.88	1194.61
1952-53	234.93	210.32	445.25	190.35	—37.31	153.04	598.29	287.98	19.21	307.19	246.58	1152.06
1953-54	248.33	196 04	444.87	236.95	—46.90	190.04	634.91	269.16	25.44	294.60	352.65	1287.16
1954-55	252.01	195.64	448.65	281.46	137.58	419.04	867.69	341.68	90.81	432.49	586.30	1886.48
1955-56	235.14	194.43	449.57	380.52	—52.98	327.54	777.11	434.73	103.82	538.55	646.09	1961.75
1956-57	274.43	236.95	511.38	482.87	28.48	511.35	1022.73	385.26	100.08	485.36	603.76	2111.85
1957-58	300.29	342.67	642.96	553.68	121.57	675.25	1318.21	536.57	65.73	602.30	986.18	2906.69
1958-59	307.28	337.46	644.74	517.55	66.97	584.52	1229.26	541.81	75.97	617.78	1049.76	2896.80
1659-60	311.70	311.44	623.14	478.65	—58.83	419.81	1042.95	674.29	102.26	777.25	1163.04	2983.24

TABLE A.4 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1960-61	351.06	281.38	632.44	510.65	9.13	519.78	1152.22	775.17	116.13	891.30	1035.99	3079.51
1961-62	349.29	336.23	685.52	539.74	19.06	558.79	1244.31	812.91	120.52	933.43	1222.12	3399.86
1962-63	446.60	497.09	937.69	672.74	11.40	684.14	1621.83	909.85	143.60	1053.45	1394.23	4069.51
1963-64	543.89	822.22	1366.11	752.41	80.11	832.53	2198.64	890.93	146.35	1037.28	1549.44	4785.36
1964-65	600.92	724.80	1325.72	799.91	67.32	867.24	2192.96	966.46	155.69	1122.15	1592.63	4907.74
1965-66	622-35	747.07	1369.42	747.79	—39.08	708.70	2078.12	991.97	179.63	1171.60	1945.52	5195.24
1966-67	667.95	724.59	1392.54	615.73	—7.66	608.07	2000.61	1215.43	172.26	1387.69	2026.87	5415.17
1967-68	692.09	690.44	1382.53	525.20	13.49	538.69	1921.22	1186.24	158.11	1344.35	1601.17	4866.74
1968-69	713.40	752.93	1466.33	506.43	—195.03	311.40	1777.73	1122.90	144.58	1267.48	1808.85	4854.06
1969-70	748.07	775.50	1523.57	460.56	—39.82	420.74	1944.71	1197.49	205.18	1402.67	1750.41	5097.39
1970-71	839.20	830.20	1669.40	485.00	34.30	519.30	2188.70	1239.10	193.30	1432.40	1955.50	5576.60
1071-72	956.91	999.91	1856.82	535.37	29.60	564.97	2521.79	1633.82	269.39	1902.21	1945.47	6369.47
1972-73	1018.01	1054.68	2072.69	581.02	10.75	591.77	2664 46	1575.74	374.53	1950.32	2238.30	6853.08
1973-74	1064.13	893.38	1957.51	548.50	54.66	603.16	2560.67	1479.95	274.71	1754.66	1882.87	6198.20
1974-75	1180.10	737.00	1922.10	502.66	247.36	750.02	2672.12	1516.25	229.15	1745.40	1773.78	6191.30
1975-76	1289.86	896.79	2186.65	538.78	144·51	683.29	2869.94	1956·24	303.94	2260.18	2482.56	7612.68
1976-77	1291.67	978.29	2229.96	607.62	12.32	619.94	2849.90	2388,41	279.86	2668.27	2413.30	7931.47
1977-78	1204.72	934.09	2138.81	623.85	—6.30	617.55	2756.36	2738.02	420.88	3158.90	2790.58	8705.84

TABLE A.5

Per Capita Central Government Expenditure by Economic Categories at Current Prices (1951 to 1978)

(*Rs.*)

Year	*Final outlays*						*Total final outlays* (3+6)	*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure* (7+10+11)
	Government consumption expenditure			*Gross capital formation*								
	Wages and salaries	*Commodities and services*	*Total Central government consumption expenditure* (1+2)	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation* (4+5)		*Current transfers*	*Capital transfers*	*Total transfers* (8+9)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	3.46	3.08	6.54	2.21	0.02	2.23	8.77	3.09	0.17	3.26	2.01	14.03
1951-52	3.50	2.36	6.36	2.47	0.42	2.89	9.25	4.61	0.30	4.91	2.56	16.72
1952-53	3.55	2.85	6.40	2.29	—0.45	1.84	8.24	3.91	0.23	4.14	3.35	15.73
1953-54	3.78	2.74	6.52	2.83	—0.56	2.27	8.79	3.61	0.30	3.92	4.74	17.44
1954-55	3.81	2.79	6.60	3.48	1.70	5.18	11.78	4.03	1.12	5.15	6.92	23.85
1955-56	4.01	2.84	6.85	4.51	—0.63	3.89	10.73	5.16	1.23	6.39	7.67	24.80
1956-57	4.24	3.65	7.88	5.84	0.34	6.18	14.06	4.91	1.21	6.11	7.69	27.87
1957-58	4.53	5.20	9.74	6.57	1.44	8.01	17.75	6.83	0.78	7.61	12.56	37.92

TABLE A.5 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1958-59	4.70	5.15	9.85	6.88	0.89	7.77	17.62	7.01	1.01	8.02	13.58	39.52
1959-60	4.78	4.66	9.44	6.34	—0.78	5.56	15.00	8.72	1.36	10.08	15.04	40.12
1960-61	5.66	4.32	9.98	6.96	0.12	7.09	17.06	9.83	1.58	11.41	13.13	41.61
1961-62	5.70	5.06	10.76	7.46	0.26	7.73	18.49	10.30	1.67	11.96	15.48	45.93
1962-63	7.01	7.53	14.54	9.36	0.16	9.52	24.06	11.74	2.00	13.74	17.99	55.78
1963-64	8.85	12.76	21.61	10.75	1.14	11.89	33.50	12.23	2.09	14.33	21.28	69.11
1964-65	9.88	11.35	21.23	11.63	0.98	12.61	33.84	14.16	2.26	16.43	23.34	73.61
1965-66	10.79	12.08	22.87	11.32	—0.59	10.73	33.60	15.54	2.72	18.26	30.48	82.34
1966-67	11.93	12.56	24.49	10.23	—0.13	10.11	34.59	21.29	2.86	24.15	35.51	94.25
1967-68	13.16	12.13	25.29	9.00	0.23	9.23	34.52	21.98	2.71	24.69	29.67	88.88
1968-69	13.62	13.13	26.75	8.66	—3.34	5.33	32.08	20.23	2.47	22.70	32.59	87.37
1969-70	14.09	13.82	27.92	8.13	—0.70	7.43	35.35	21.98	3.62	25.61	32.14	93.09
1970-71	15.51	15.35	30.86	8.96	0.63	9.60	40.46	22.90	3.57	26.48	36.15	103.08
1971-72	17.72	19.37	37.08	10.22	0.56	10.78	47.87	31.10	5.12	36.22	37.03	121.11
1972-73	19.08	20.89	39.97	11.75	0.22	11.96	51.93	32.71	7.57	40.28	46.47	138.68
1973-74	20.61	19.33	39.94	12.29	1.22	13.51	53.45	35.57	6.15	41.72	45.25	140.43
1974-75	27.41	21.10	48.51	13.92	6.85	20.77	69.28	41.45	6.35	47.80	48.49	165.57
1975-76	30.74	26.37	57.11	15.72	4.22	19.94	77.04	49.96	8.87	58.83	63.40	199.28
1976-77	29.79	28.75	58.54	17.69	0.36	18.05	76.59	64.04	8.15	72.19	64.70	213.48
1977-78	30.25	28.23	58.48	17.78	—0.18	17.60	76.08	74.37	12.00	86.37	75.80	238.24

TABLE A.6

Per Capita Central Government Expenditure by Economic Categories at 1970-71 Prices (1951 to 1978)

(*Rs*)

Year	*Final outlays*						*Total final outlays* (3+6)	*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure* (7+10+11)
	Government consumption expenditure			*Gross capital formation*								
	Wages and salaries	*Commodities and services*	*Total Central government consumption expenditure* (1+2)	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation* (4+5)		*Current transfers*	*Capital transfers*	*Total transfers* (8+9)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	6.39	6.74	13.13	5.21	0.04	5.25	18.37	5.88	0.39	6.28	3.82	28.47
1951-52	6.32	5.95	12.27	5.44	0.93	6.37	18.64	8.65	0.65	9.30	4.79	32.73
1952-53	6.32	5.65	11.97	5.12	—1.00	4.11	16.08	7.74	0.52	8.26	6.63	30.97
1953-54	6.57	5.17	11.74	6.25	—1.24	5.01	16.75	7.10	0.67	7.77	9.30	33.83
1954-55	6.55	5.07	11.62	7.29	3.56	10.86	22.48	8.85	2.35	11.20	15.19	48.87
1955-56	6.49	4,95	11.44	9.68	—1.35	8.33	19.77	11.06	2.64	13.70	16.44	49.92

TABLE A.6 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1956-57	6.84	5.91	12.75	12.04	0.71	12.75	25.50	9.61	2.50	12.10	15.06	52.66
1957-58	7.34	8.38	15.72	13.54	2.97	16.51	32.23	13.12	1.61	14.73	24.11	71.07
1958-59	7.35	8.07	15.42	12.38	1.60	13.98	29.41	12.96	1.82	14.78	25.11	69.30
1959-60	7.32	7.31	14.63	11.24	—1.38	9.85	24.48	15.83	2.42	18.25	27.30	70.03
1960-61	8.09	6.48	14.57	11.77	0.21	11.98	26.55	17.86	2.68	20.54	23.87	70.96
1961-62	7.87	7.57	15.44	12.16	0.43	12.59	28.03	18.31	2.71	21.02	27.53	76.57
1962-63	9.70	10.95	20.65	14.82	0.25	15.07	35.72	20.04	3.16	23.20	30.71	89.64
1963-64	11.72	17.72	29.44	16.22	1.73	17.94	47.38	19.20	3.15	22.36	33.39	103.13
1964-65	12.68	15.29	27.97	16.88	1.42	18.30	46.26	20.39	3.28	23.67	33.60	103.54
1965-66	12.83	15.40	28.24	15.42	—0.81	14.61	42.85	20.45	3.70	24.16	40.11	107.12
1966-67	13.49	14.64	28.13	12.44	—0.15	12.28	40.44	24.55	3.48	28.03	40.95	109.40
1967-68	13.68	13.65	27.32	10.38	0.27	10.65	37.97	23.44	3.12	26.57	31.64	96.18
1968-69	13.77	14.54	28.31	9.78	—3.77	6.01	34.32	21.68	2.79	24.47	34.92	93.71
1969-70	14.14	14.66	28.80	8.71	—0.75	7.95	36.75	22.64	3.88	26.52	33.09	96.36
1970-71	15.51	15.35	30.86	8.96	0.63	9.60	40.46	22.90	3.57	26.48	36.15	103.08
1971-72	17.27	18.05	35.32	9.66	0.53	10.20	45.52	29.49	4.84	34.34	35.12	114.97
1972-73	17.99	18.63	36.62	10.27	0.19	10.46	47.08	27.84	6.62	34.46	39.55	121.08
1973-74	18.38	15.43	33.81	9.47	0.94	10.42	44.23	25.56	.74	30.31	32.52	107.05
1974-75	20.05	12.47	32.52	8.51	4.19	12.69	45.21	25.66	3.88	29.53	30.01	104.76
1975-76	21.36	14.85	36.20	8.92	2.39	11.31	47.52	32.39	5.03	37.42	41.10	126.04
1976-77	20.32	15.88	36.50	9.86	0.20	10.06	46.26	38.77	4.54	43.32	39.18	128.76
1977-78	19.15	14.85	34.00	9.92	—0.10	9.82	43.82	43.53	6.69	0.22	44.37	138.41

TABLE A.7

Central Government Expenditure by Economic Categories as Percentage of GNP at Current Prices (1951 to 1978)

(*Percent*)

Year	*Final outlays*						*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure (7+10+11)*
	Government consumption expenditure			*Gross capital formation*		*Total final outlays (3+6)*	*Current transfers*	*Capital transfers*	*Total transfers (8+9)*		
	Wages and salaries	*Commodities and services*	*Total Central government consumption expenditure (1+2)*	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation (4+5)*					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	1.29	1.15	2.43	0.82	0.01	0.83	3.26	1.15	0.06	1.21	0.75	5.22
1951-52	1.27	1.03	2.30	0.89	0.15	1.04	3.34	1.67	0.11	1.77	0.92	6.04
1952-53	1.34	1.08	2.42	0.87	—0.17	0.70	3.11	1.48	0.09	1.56	1.26	5.94
1953-54	1.36	0.98	2.34	1.01	—0.20	0.81	3.13	1.30	0.11	1.41	1.70	6.24
1954-55	1.50	1.10	2.60	1.37	0.67	2.04	4.64	1.59	0.44	2.03	2.73	9.40
1955-56	1.51	1.07	2-59	1.71	—0.24	1.47	4.06	1.95	0.47	2.42	2.90	9.37
1956-57	1.42	1.22	2.64	1.95	0.12	2.07	4.71	1.64	0.40	2.05	3.57	9.33
1957-58	1.53	1.75	3.28	2.22	0.49	2.70	5.99	2.30	0.26	2.57	4.24	12.79
1958-59	1.45	1.58	3.03	2.11	0.27	2.39	5.42	2.15	0.31	2.46	4.17	12.05

TABLE A.7 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1959-60	1.44	1.41	2.85	1.91	—0.23	1.68	4.52	2.63	0.41	3.04	4.53	12.09
1960-61	1.64	1.25	2.90	2.02	0.04	2.06	4.95	2.85	0.46	3.31	3.81	12.08
1961-62	1.59	1.41	3.01	2.09	0.07	2.16	5.17	2.88	0.47	3.34	4.33	12.84
1962-63	1.87	2.01	3.89	2.50	0.04	2.54	6.43	3.14	0.53	3.67	4.81	14.90
1963-64	2.10	3.03	5.13	2.55	0.27	2.82	7.95	2.90	0.50	3.40	5.05	16.41
1964-65	2.05	2.35	4.39	2.41	0.20	2.61	7.00	2.93	0.47	3.40	4.83	15.24
1965-66	2.19	2.45	4.63	2.29	—0.12	2.17	6.80	3.15	0.55	3.70	6.17	16.68
1966-67	2.15	2.27	4.42	1.85	—0.02	1.82	6.24	3.84	0.52	4.36	6.41	17.01
1967-68	2.08	1.92	3.99	1.42	0.04	1.46	5.45	3.47	0.43	3.90	4.69	14.04
1968-69	2.14	2.06	4.20	1.36	—0.52	0.84	5.03	3.17	0.39	3.56	5.11	13.90
1969-70	2.04	2.00	4.04	1.18	—0.10	1.07	5.11	3.18	0.52	3.70	4.65	13.46
1970-71	2.09	2.07	4.16	1.21	0.09	1.29	5.46	3.09	0.48	3.57	3.88	13.90
1971-72	2.27	2.48	4.75	1.31	0.07	1.38	6.13	3.98	0.66	4.64	4.74	15.52
1972-73	2.26	2.48	4.74	1.39	0.03	1.42	6.16	3.88	0.90	4.78	5.51	16.45
1973-74	2.03	1.90	3.93	1.21	0.12	1.33	5.26	3.50	0.61	4.10	4.45	13.81
1974-75	2.33	1.79	4.12	1.18	0.58	1.76	5.88	3.52	0.54	4.06	4.12	14.06
1975-76	2.52	2.16	4.68	1.29	0.35	1.64	6.32	4.10	0.73	4.83	5.20	16.35
1976-77	2.31	2.23	4.54	1.37	0.03	1.40	5.94	4.97	0.63	5.60	5.02	16.56
1977-78	2.14	2.00	4.14	1.26	—0.01	1.25	5.38	5.26	0.85	6.11	5.36	16.86

TABLE A.8

Central Goverment Expenditure by Economic Categories as Percentage of GNP at 1970-71 Prices (1951 to 1978)

(Per cent)

Year	Final Outlays						Total final outlays (3+6)	Transfer payments to the rest of the economy			Financial investments and loans to the rest of the economy	Total Central government expenditure (7+10+11)
	Government consumption expenditure			Gross capital formation								
	Wages and salaries	Commodities and services	Total Central government consumption expenditure (1+2)	Gross fixed capital formation	Increase in inventories	Total gross capital formation (4+5)		Current transfers	Capital transfers	Total transfers (8+9)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	1.24	1.31	2.56	1.01	0.01	1.02	3.58	1.15	0.08	1.22	0.74	5.55
1951-52	1.22	1.15	2.36	1.05	0.18	1.23	3.59	1.67	0.13	1.79	0.92	6.31
1952-53	1.20	1.08	2.28	0.98	-0.19	0.78	3.07	1.48	0.10	1.57	1.26	5.90
1953-54	1.20	0.94	2.14	1.14	-0.23	0.92	3.06	1.30	1.12	1.42	1.70	6.18
1954-55	1.17	0.91	2.08	1.31	0.64	1.94	4.03	1.58	0.42	2.01	2.72	8.75
1955-56	1.14	0.87	2.01	1.71	-0.24	1.47	3.48	1.95	0.47	2.41	2.90	8.79
1956-57	1.17	1.01	2.18	2.05	0.12	2.18	4.35	1.64	0.43	2.07	2.57	8.99
1957-58	1.29	1.47	2.76	2.38	0.52	2.90	5.66	2.30	0.28	2.58	4.23	12.47
1958-59	1.22	1.34	2.56	2.06	0.27	2.32	4.88	2.15	0.30	2.45	4.17	11.51
1959-60	1.21	1.21	2.42	1.86	-0.23	1.63	4.06	2.62	0.40	3.02	4.52	11.60
1960-61	1.29	1.04	2.33	1.88	0.03	1.91	4.24	2.86	0.43	3.28	3.82	11.35

TABLE A.8 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961-62	1.24	1.19	2.43	1.91	0.07	1.98	4.41	2.88	0.43	3.31	4.33	12.05
1962-63	1.52	1.71	3.23	2.32	0.04	2.36	5.59	3.14	0.50	3.63	4.81	14.04
1963-64	1.77	2.68	4.45	2.45	0.26	2.71	7.17	2.91	0.48	3.38	5.05	15.60
1964-65	1.82	2.20	4.02	2.43	0.20	2.63	6.65	2.93	0.47	3.40	4.83	14.89
1965-66	1.97	2.37	4.34	2.37	-0.12	2.25	6.59	3.15	0.57	3.72	6.17	16.48
1966-67	2.11	2.29	4.41	1.95	-0.02	1.92	6.34	3.85	0.55	4.39	6.42	17.14
1967-68	2.03	2.02	4.05	1.54	0.04	1.58	5.62	3.47	0.46	3.93	4.69	14.24
1968-69	2.02	2.13	4.14	1.43	-0.55	0.88	5.02	3.17	0.41	3.58	5.11	13.72
1969-70	1.99	2.06	4.04	1.22	-0.11	1.12	5.16	3.18	0.54	3.72	4.65	13.53
1970-71	2.09	2.07	4.16	1.21	0.09	1.29	5.46	3.09	0.48	3.57	4.88	13.90
1971-72	2.33	2.44	4.77	1.30	0.07	1.38	6.14	3.98	0.65	4.63	4.74	15.52
1972-73	2.50	2.09	5.10	1.43	0.33	1.45	6.55	3.87	0.92	4.80	5.50	16.85
1973-74	2.52	2.11	4.63	1.30	0.13	1.43	6.05	3.50	0.65	4.15	4.45	14.65
1974-75	2.75	1.71	4.46	1.17	0.57	1.74	6.21	3.52	0.53	4.05	4.12	14.38
1975-76	2.71	1.88	4.59	1.13	0.30	1.43	6.02	4.11	0.64	4.74	5.21	15.98
1976-77	2.61	2.04	4.65	1.27	0.03	1.29	5.94	4.98	0.58	5.56	5.03	16.52
1977-78	2.32	1.80	4.12	1.20	—0.01	1.19	5.31	5.27	0.81	6.08	5.37	16.75

TABLE A-9

Percentage Distribution of Central Government Expenditure by Economic Categories at Current Prices (1951 to 1978)

(Per cent)

Year	Final outlays							Transfer payments to the rest of the economy			Financial investments and loans to the rest of the economy	Total Central government expenditure (7+10+11)
	Government consumption expenditure			Gross Capital Formation			Total final outlays (3+6)	Current transfers	Capital transfers	Total transfers (8+9)		
	Wages and salaries	Commodities and services	Total Central government consumption expenditure (1+2)	Gross fixed capital formation	Increase in inventories	Total gross capital formation (4+5)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	24.64	21.96	46.60	15.78	0.12	15.90	62.50	22.02	1.19	23.21	14.29	100.00
1951-52	20.96	17.10	38.06	14.75	2.52	17.28	55.34	27.60	1.77	29.37	15.29	100.00
1952-53	22.58	18.12	40.69	14.56	-2.85	11.71	52.40	24.85	1.47	26.32	21.88	100.00
1953-54	21.76	15.79	37.55	16.28	-3.22	13.05	50.15	20.82	1.75	22.57	27.28	100.00
1954-55	15.97	11.71	27.68	14.58	7.13	21.71	49.39	16.90	4.70	21.61	29.01	100.00
1955-56	16.16	11.45	27.61	18.20	-2.53	15.97	43.28	20.81	4.98	25.79	30.93	100.00
1956-57	15.20	13.08	28.29	20.94	1.23	22.17	50.46	17.61	4.33	21.94	27.60	100.00
1957-58	11.95	13.72	25.67	17.32	3.80	21.13	46.80	88.02	2.06	20.06	33.12	100.00
1958-59	11.99	13.13	25.13	17.54	2.27	19.81	44.94	17.87	2.57	20.44	34.62	100.00
1959-60	11.91	11.62	23.54	15.80	-1.94	13.86	37.40	21.73	3.40	25.13	37.48	100.00

TABLE A.9 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1960-61	13.60	10.38	23.98	16.73	0.30	17.03	41.01	23.62	3.80	27.42	31.57	100.00
1961-62	12.42	11.01	23.43	16.25	0.57	16.83	40.26	22.42	3.63	26.04	33.70	100.00
1962-63	12.56	13.50	26.07	16.78	0.28	17.06	43.13	21.04	3.58	24.62	32.24	100.00
1963-64	12.81	18.46	31.27	15.55	1.66	17.21	48.48	17.70	3.03	20.73	30.79	100.00
1964-65	13.42	15.41	28.84	15.80	1.33	17.13	45.97	19.24	3.08	22.32	31.71	100.00
1965-66	13.11	14.67	27.77	13.75	-0.72	13.03	40.80	18.88	3.30	22.18	37.02	100.00
1966-67	12.65	13.33	25.98	10.86	-0.14	10.72	36.70	22.59	3.04	25.63	37.67	100.00
1967-68	14.81	13.65	28.46	10.13	0.26	10.39	38.84	24.73	3.05	27.78	33.38	100.00
1968-69	15.59	15.02	30.62	9.91	-3.82	6.10	36.71	23.16	2.83	25.99	37.30	100.00
1969-70	15.14	14.85	29.99	8.74	-0.76	7.98	37.97	23.62	3.89	27.51	34.52	100.00
1970-71	15.05	14.89	29.94	8.70	0.62	9.31	39.25	22.22	3.47	25.69	35.07	100.00
1971-72	14.63	15.99	30.62	8.44	0.47	8.90	39.52	25.67	4.23	29.90	30.57	100.00
1972-73	13.76	15.06	28.82	8.47	0.16	8.63	37.45	23.59	5.46	29.05	33.51	100.00
1973-74	14.67	13.77	28.44	8.75	0.87	9.62	38.06	25.33	4.38	29.71	32.23	100.00
1974-75	16.55	17.74	29.30	8.41	4.14	12.54	41.84	25.04	3.83	28.87	29.29	100.00
1975-76	15.42	13.23	28.66	7.89	2.12	10.01	38.66	25.07	4.45	29.52	31.82	100.00
1976-77	13.96	13.47	27.42	8.29	0.17	8.45	35.88	30.00	3.82	33.81	30.31	100.00
1977-78	12.70	11.85	24.54	7.46	-0.08	7.39	31.93	31.22	5.04	36.25	31.82	100.00

TABLE A.10

Percentage Distribution of Central Government Expenditure by Economic Categories at 1970-71 Prices (1951 to 1978)

(Per cent)

Year	*Final outlays*							*Transfer payments to the rest of the economy*			*Financial investments and loans to the rest of the economy*	*Total Central government expenditure (7+10+11)*
	Government consumption expenditure			*Gross capital formation*								
	Wages and salaries	*Commodities and services*	*Total Central government consumption expenditure (1+2)*	*Gross fixed capital formation*	*Increase in inventories*	*Total gross capital formation (4+5)*	*Total final outlays (3+6)*	*Current transfers*	*Capital transfers*	*Total transfers (8+9)*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1950-51	22.43	23.68	46.11	18.29	0.14	18.43	64.54	20.66	1.38	22.04	13.42	100.00
1951-52	19.30	18.19	37.49	16.61	2.84	19.45	56.94	26.42	1.99	28.42	14.64	100.00
1952-53	20.39	18.25	38.65	16.52	—3.24	13.28	51.94	25.00	1.67	26.66	21.40	100.00
1953-54	19.41	15.29	34.70	18.48	—3.66	14.82	49.52	20.99	1.98	22.98	27.50	100.00
1954-55	13.41	10.37	23.78	14.92	7.29	22.21	46.00	18.11	4.81	22.93	31.08	100.00
1955-56	13.01	9.91	22.92	19.40	—2.70	16.70	39.61	22.16	5.29	27.45	32.93	100.00
1956-57	12.99	11.22	24.21	22.86	1.35	24.21	48.43	18.24	4.74	22.98	28.59	100.00
1957-58	10.33	11.79	22.12	19.05	4.18	23.23	45.35	18.46	2.26	20.72	33.93	100.00
1958-59	10.61	11.65	22.26	17.87	2.31	20.18	42.44	18.70	2.62	21.33	36.24	100.00
1959-60	10.45	10.44	20.89	16.04	—1.97	14.07	34.96	22.60	3.45	26.05	38.99	100.00
1960-61	11.40	9.14	20.54	16.58	0.30	16.88	37.42	25.17	3.77	28.94	23.64	100.00

TABLE A.10 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1961-62	10.27	9.89	20.16	15.88	0.56	16.44	36.60	23.91	3.54	27.45	35.95	100.00
1962-63	10.83	12.22	23.04	16.53	0.28	16.81	39.85	22.36	3.53	25.89	34.26	100.00
1963-64	11.37	17.18	28.55	15.72	1.67	17.40	45.95	18.62	3.06	21.68	32.38	100.00
1964-65	17.24	14.77	27.01	16.30	1.37	17.67	44.98	19.69	3.17	22.66	32.45	100.00
1965-66	11.98	14.38	26.36	14.39	—0.75	13.64	40.00	19.09	3.46	22.55	37.45	100.00
1966-67	12.33	13.38	25.72	11.37	—0.14	11.23	36.96	22.44	3.18	25.63	37.43	100.00
1967-68	14.22	14.19	28.41	10.79	0.28	11.07	39.48	24.37	3.25	27.62	32.90	100.00
1968-69	14.70	15.51	30.21	10.43	—4.02	6.42	36.62	23.13	2.98	26.11	37.26	100.00
1969-70	14.68	15.21	29.89	9.04	—0.78	8.25	38.14	23.49	4.03	27.52	34.34	100.00
1970-71	15.05	14.89	29.94	8.70	0.62	9.31	39.25	22.22	3.47	25.69	35.07	100.00
1971-72	15.02	15.70	30.72	8.41	0.46	8.87	39.59	25.65	4.21	29.86	30.54	100.00
1972-73	14.85	15.39	30.24	8.48	0.16	8.64	38.88	22.99	5.47	28.46	32.66	100.00
1973-74	17.17	14.41	31.58	8.85	0.88	9.73	41.31	23.88	4.43	28.31	30.38	100.00
1974-75	19.14	11.90	31.05	8.12	4.00	12.11	43.16	24.49	3.70	28.19	28.65	100.00
1975-76	16.94	11.78	28.72	7.08	1.90	8.98	37.70	25.70	3.99	29.69	32.61	100.00
1976-77	15.78	12.33	28.12	7.66	0.16	7.82	35.93	30.11	3.53	33.64	30.43	100.00
1977-78	13.84	10.73	24.83	7.66	—0.07	7.09	31.66	31.45	4.82	36.28	32.05	100.00

TABLE

Central Government Expenditure by Functional
(1966 to

Year	*General services*			*Social services*			
	Defence services	*Services other than defence*	*Total general services (1+2)*	*Education*	*Medical & public health*	*Other social services*	*Total social services (4 to 6)*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1965-66	844.60	296.60	1141.20	117.40	66.90	142.40	326.70
1966-67	381.00	533.00	1414.00	89.20	62.90	152.30	304.40
1967-68	940.30	365.00	1305.30	87.40	63.80	120.50	271.70
1968-69	998.20	403.90	1402.10	81.70	76.90	116.00	274.60
1969-70	1058 40	433.70	1492.10	90.50	85.60	127.80	303.90
1970-71	1151.60	626.30	1777.90	109.30	86.30	168.40	364.00
1971-72	1473.70	543.50	2017.20	109.60	134.10	208.30	452.00
1972-73	1592.60	736.80	2329.40	160.20	161.70	342.30	664.20
1973-74	1616.50	835.30	2451.80	146.70	99.70	354.70	601.10
1974-75	2019.90	597.80	2617.70	181.20	111.60	299.60	592.20
1975-76	2359.90	984.00	3343.90	215.20	226.30	342.20	783.70
1976-77	2426.80	874.50	3301.30	241.30	260.00	398.60	899.90
1977-78	2492.50	778.70	3271.20	265.00	229.80	475.40	970.20

A.11

Categories at Current Prices
1978)

(Rs. crore)

Economic services						Unallocable	Total Central government expenditure (3+7+13+14)
Agriculture	Industry	Transport and communications	Other economic services	Block grants and loans	Total economic services (8 to 12)		
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
401.30	624.70	569.00	419.40	0.00	2014.40	511.30	3993.60
502.30	728.60	504.60	309.90	0.00	2086.40	860.60	4665.40
250.70	596.20	484.20	80.00	584.90	1996.00	924.20	4497.20
155.60	610.10	446.00	117.50	631.00	1960.20	886.90	4525.80
243.20	616.60	423.10	117.30	647.60	2047.80	1080.90	4924.70
211.50	573.70	622.40	223.60	663.10	2294.30	1140.30	5576.50
326.80	783.80	640.60	199.70	723.50	2674.40	1566.00	6709.60
547.40	927.20	760.30	277.50	772.30	3284.70	1571.00	7849.30
384.00	810.10	795.70	395.60	767.50	3152.90	1925.00	8130.80
703.00	1522.60	936.50	322.40	898.70	4383.20	2191.80	9784.90
814.00	2283.00	1085.30	359.20	1146.90	5688.40	2220.50	12036.50
732.60	2782.10	1067.40	381.70	1310.40	6274.20	2674.70	13150.10
975.30	2991.70	1129.00	413.90	1957.50	7467.40	3276.80	14985.60

TABLE A.12

Central Government Expenditure by Functional Categories at 1970-71 Prices (1966 to 1978)

(*Rs. crore*)

Year	General services			Social services				Economic services						Unallocable	Total Central government expenditure (3+7+13+14)
	Defence services	services other than defence	Total general services (2+2)	Education	Medical & public health	Other social services	Total social services (4 to 6)	Agriculture	Industry	Transport and communications	Other economic services	Block grants and loans	Total economic services (8 to 12)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1965-66	1098.74	385.85	1484.58	152.73	87.03	185.25	425.00	522.05	812.67	740.21	545.60	0.00	2620.53	665.15	5195.26
1966-67	1022.58	618.66	1641.24	103.54	73.01	176.78	353.32	583.02	845.69	585.69	407.29	0.00	2421.70	998.01	5415.17
1967-68	1017.57	394.99	1412.56	94.58	69.04	130.41	294.03	271.30	645.19	523.99	86.57	632.96	2160.01	1000.14	4866.74
1968-69	1070.60	433.29	1503.80	87.63	82.48	124.41	294.52	166.89	654.35	478.35	126.02	676.77	2102.37	953.37	4854.06
1969-70	1095.51	448.91	1544.72	93.67	88.60	132.28	314.56	251.73	683.22	437.94	121.41	670.31	2119.61	1118.80	5097.39

TABLE A.12 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1970-71	1151.60	626.63	1777.90	109.30	86.30	168.40	364.00	211.50	573.70	622.40	223.60	663.10	2294.03	1140.30	5576.50
1971-72	1398.99	515.95	1914.94	104.04	127.30	197.74	429.09	310.23	744.07	608.13	189.58	686.82	2538.83	1486.61	6369.47
1972-73	1390.47	643.29	2033.76	139.87	141.18	298.86	579.90	477.92	809.52	663.80	242.28	674.28	2867.81	1371.61	6853.08
1973-74	1232.28	636.76	1869.03	111.83	76.00	270.39	458.23	292.73	617.55	606.57	301.57	585.07	2403.49	1467.45	6198.20
1974-75	1278.07	378.25	1656.32	114.53	70.61	189.57	374.41	444.82	963.41	592.56	204.00	568.64	2773.43	1386.84	6191.30
1975-76	1492.56	622.35	2114.90	136.11	143.13	216.43	495.66	514.83	1443.92	686.42	227.18	725.38	3597.72	1404.39	7612.68
1976-77	1463.72	527.45	1991.18	145.54	156.82	240.42	542.77	441.87	1678.02	643.80	230.22	790.37	3784.28	1613.24	7931.47
1977-78	1448.01	452.38	1900.39	153.95	133.50	276.18	563.63	566.60	1738.02	655.89	240.45	1137.20	4328.16	1903.65	8705.94

TABLE A.13

Percentage Distribution of Central Government Expenditure by Functional Categories at Current Prices (1966 to 1968)

(*Per cent*)

Year	*General services*			*Social services*				*Economic services*						*Unal-*	*Total*
	Defence services	*Services other than defence*	*Total general services (1+2)*	*Education*	*Medical & public health*	*Other social services*	*Total social services (4 to 6)*	*Agriculture*	*Industry*	*Transport and communication*	*Other economic services*	*Block grants & loans*	*Total economic services (8 to 12)*	*locable*	*Central government expenditure (3+7+13+14)*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1965-66	21.15	7.43	28.58	2.94	1.68	3.57	8.18	10.05	15.64	14.25	10.50	0.00	50.44	12.80	100.00
1966-67	18.98	11.42	30.31	1.91	1.35	3.26	6.52	10.77	15.62	10.82	7.52	0.00	44.72	18.45	100.00
1967-68	20.91	8.12	29.02	1.94	1.42	2.68	6.04	5.57	13.26	10.77	1.78	13.01	44.38	20.55	100.00
1968-69	22.06	8.92	30.98	1.81	1.70	2.56	6.07	3.44	13.48	9.85	2.60	13.94	43.31	19.64	100.00
1969-70	21.40	8.81	30.30	1.84	1.74	2.60	6.17	4.94	12.52	8.59	2.38	13.15	41.58	21.95	100.00

TABLE A.13 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1970-71	29.65	11.23	31.88	1.96	1.55	3.02	6.53	3.79	10.29	11.16	4.01	11.89	41.14	20.45	100.00
1971-72	21.96	8.10	30.06	1.63	2.00	3.10	6.74	4.87	11.68	9.55	2.98	10.78	39.86	23.34	100.00
1972-73	29.29	9.39	29.68	2.04	2.06	4.36	8.46	6.97	11.81	9.69	3.54	9.84	41.85	30.01	100.00
1973-74	19.88	10.27	30.15	1.80	1.23	4.36	7.39	4.72	9.96	9.79	4.87	9.44	38.78	23.68	100.00
1974-75	20.64	6.11	26.75	1.85	1.14	3.06	6.05	7.18	15.56	9.57	3.29	9.18	44.80	22.40	100.00
1975-76	19.61	8.18	27.78	1.79	1.88	2.84	6.51	6.76	18.97	9.02	2.98	9.53	47.26	18.45	100.00
1976-77	18.45	6.65	25.10	1.83	1.98	3.03	6.84	5.57	21.16	8.12	2.90	9.96	47.71	20.34	100.00
1977-78	16.63	5.20	21.83	1.77	1.53	3.17	6.47	6.51	19.96	7 53	2.76	13.06	49.83	21.87	100.00

TABLE A.14

Central Government Expenditure by Functional Categories as Per Cent of GNP at Current Prices (1966 to 1978)

(Per cent)

Year	*General services*				*Social services*			*Economic services*						*Unal-locable*	*Total Central government expenditure (3+7+13+14)*
	Defence services	*Services other than defence*	*Total general services (1+2)*	*Education*	*Medical & Public health*	*Other social services*	*Total social services (4 to 6)*	*Agriculture*	*Industry*	*Transport and communication*	*Other economic services*	*Block grants & loans*	*Total economic services (8 to 12)*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1965-66	3.53	1.24	4.77	0.49	0.28	0.59	1.36	1.68	1.75	2.38	2.61	0.00	8.41	2.14	16.68
1966-67	3.21	1.94	5.15	0.33	0.23	0.56	1.11	1.83	2.66	1.84	1.28	0.00	7.61	3.14	17.01
1967-68	2.94	1.14	4.07	0.27	0.20	0.38	0.85	0.78	1.86	1.51	0.25	1.83	6.23	7.88	14.04
1968-69	3.02	1.22	4.25	0.25	0.23	0.35	0.83	0.47	1.85	1.35	0.36	1.91	5.94	2.69	13.70
1969-70	2.89	1.19	4.08	0.25	0.23	0.35	0.83	0.66	1.69	1.16	0.32	1.77	5.60	2.95	13.46

TABLE A.14 (Contd.)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1970-71	2.87	1.56	4.43	0.27	0.22	0.42	0.91	0.53	1.43	1.55	0.56	1.65	5.72	2.84	13.90
1971-72	3.41	1.26	4.67	0.25	0.31	0.48	1.05	0.76	1.81	1.48	0.67	6.16	6.19	3.62	15.52
1972-73	3.34	1.54	4.88	0.34	0.34	0.72	1.39	1.15	1.94	1.50	0.58	1.62	6.88	3.79	16.45
1973-74	2.75	1.42	4.17	0.25	0.17	0.60	1.02	0.65	1.38	1.35	0.67	1.30	5.36	3.27	13.81
1974-75	2.90	0.86	3.76	0.26	0.16	0.43	0.85	1.01	2.19	1.35	0.46	1.29	6.30	3.15	14.06
1975-76	3.21	1.34	4.54	0.29	0.31	0.46	1.06	1.11	3.10	1.47	0.49	1.56	7.73	3.02	16.35
1976-77	3.06	1.10	4.16	0.30	0.33	0.50	1.13	0.92	3.50	1.34	0.48	1.65	7.90	3.37	16.56
1977-78	2.80	0.88	3.68	0.30	0.26	0.53	1.09	1.10	3.37	1.27	0.47	2.20	8.40	3.69	16.86

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