MASTER OF ARTS IN ECONOMICS

SEMESTER-I

ECO-1.2: PRINCIPLES OF PUBLIC FINANCE & FISCAL POLICY

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PAPER-ECO.1.2: PRINCIPLES OF PUBLIC FINANCE AND FISCAL POLICY

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UNIT - I

1.1 Chapter

PUBLIC FINANCE – AN INTRODUCTION

Objectives

After completing this chapter, you will be able to:

- Understand Public Finance
- Know the classical and modern concept on Public Finance
- Learn the distinction between private and public goods
- Know externalities
- Learn the role of government in allocating resources between private and public sector

Structure:

1.1.1 INTRODUCTION

Public Finance is a study of income and expenditure of a government. It studies the income raised through revenue and expenditure incurred or spent on the activities of public authorities. Income and expenditure of the government are regulated through marginal adjustments so as to give the maximum public benefit. The term '*public authorities*' connotes all sorts of governments though they differ in their functions, operations, sources of income and objectives of expenditure. Further, it relates to the raising and utilisation of their resources. In a narrow sense, they differ widely as concerned to the magnitude of areas and population which they govern, the nature of

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functions which they perform, different objects as well as different methods adopted to achieve the so-called objectives in the form of income, revenue or purposes of expenditure and financial relations with other public authorities at national level or at international level. In a broad sense, these distinctions are only secondary. Basically, there is a difference in the Central or Federal, State and Local Governments.

In the modern era, the various governments all over the world have entered and are entering into a number of public projects for the economic and social security of their citizens such as railways, post and telegraphs, dams, heavy electrical, atomic energy projects etc. Moreover, with the adoption of planning in almost all the countries, the scope of State activity has considerably expanded. In this way, with the gradual expansion of the functions of the modern governments, the total public expenditure is increasing at a very rapid rate. On the other hand, the total expenditure and revenue of a government are much larger than the revenue and expenditure of a single man or single economic and social organisation. Thus, various tools of public finance can be utilised as an instrument for bringing about the desired economic and social changes in a country.

The origin of public finance is traceable in the origin of the modern welfare state. Either due to necessity or due to man being by nature a political animal some form of governmental organisation has existed ever since man passed beyond the most primitive stage of development. In short, the origin of public finance is deep-rooted in antiquity.

Discussion of the various aspects of the public finances has a long history.

1. Public Revenue, which deals with the method of raising funds and the principles of taxation. Thus, within the purview of public revenue, we take up the classification of public revenue, canons and justification of taxation, the problem of incidence and shifting of taxes, effects of taxation, etc.
2. Public Expenditure, which deals with the principles and problems relating to the allocation of public spendings. Here, we study the fundamental principles governing the flow of public funds into different channels; classification and justification of public expenditure; expenditure policies of the government and the measures adopted for general welfare.
3. Public Debt, which deals with the study of the causes and methods of Notes, public loans as well as public debt management.
4. Financial Administration – under this, the problem of how the financial machinery is organised and administered is dealt with.

Scope of Public Finance

The scope of public finance is not just to study the composition of public revenue and public expenditure. It covers a full discussion of the influence of government fiscal operations on the level of overall activity, employment, prices and growth process of the economic system as a whole.

According to Musgrave, the scope of public finance embraces the following three functions of the government's budgetary policy confined to the fiscal department:

(i) the Allocation Branch,

(ii) the Distribution Branch, and

(iii) the Stabilisation Branch.

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These refer to three objectives of budget policy, i.e., the use of fiscal instruments:

(i) to secure adjustments in the allocation of resources,

(ii) to secure adjustments in the distribution of income and wealth, and

(iii) to secure economic stabilisation.

Thus, the function of the allocation branch of the fiscal department is to determine what adjustments in allocation are needed, who shall bear the cost, what revenue and expenditure policies to be formulated to fulfil the desired objectives. The function of the distribution branch is to determine what steps are needed to bring about the desired or equitable state of distribution in the economy and the stabilisation branch shall confine itself to the decisions as to what should be done to secure price stability and to maintain full employment level.

Further, modern public finance has two aspects: (i) Positive aspect and (ii) Normative aspect. In its positive aspect, the study of public finance is concerned with what are the sources of public revenue, items of public expenditure, constituents of budget, and formal as well as effective incidence of fiscal operations. In its normative aspect, norms or standards of the government's financial operations are laid down, investigated, and appraised. The basic norm of modern finance is general economic welfare. On normative consideration, public finance becomes a skilful art, whereas in its positive aspect, it remains a fiscal science.

1.1.2 CLASSICAL CONCEPT ON PUBLIC FINANCE

The origin of the classical concept of public finance can be traced back to the last part of eighteenth century. The real beginning of a scientific look at the subject must be attributed to the writings of Adam Smith in his 'Wealth of Nations' published in 1776 A.D. Book V of the "Wealth of Nations" which is devoted to public expenditure, public revenues and public debts. Various types of public outlay, limited, however, to the arena of three 'duties of sovereign,' classification of revenues into various categories together with enunciation of his famous four canons of taxation and a discussion of the origin and history of the public debt with proposals to reduce it have been the major highlights of Adam Smith's contribution.

Similarly, Rricardo in his "Principles" discusses in details the effects of different taxes on various sectors of the economy, but does not consider the aspects of public expenditure so much important as to be included in his book which has come to be generally referred to as a 'science of taxation'. J.S. Mill's 'Principles of Political Economy', published in 1848 dwelt at length on general principles of taxation, classification of taxes into 'direct' and 'indirect', the comparative effects of different taxes and various problems of the national debt in his Book V. As in the case of Ricardo, Mill, too, paid only scant attention to the problems of public expenditure. The relation of taxpayer and the government was seen by John Stuart Mill in *quid pro quo* terms. Though 'Wealth of Nations' of Adam Smith had the towering influence in moulding the thoughts of his contemporaries and followers, yet we find sharp division among them in giving importance to different aspects of Public Finance and, more particularly, to those of public expenditure.

We still find relatively little systematic discussion of Public finance as a subject in the writings of neo-classical economists. Alfred Marshall's 'Principles' does not make a

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logical approach to Public Finance though issues relating to problems of taxation appear in a number of chapters. Again, it is the science of taxation which engaged the thoughts of Edgeworth who was very emphatic in declaring, 'the science of taxation" comprising two main subjects to which the characters of pure theory may be ascribed, the laws of incidence and the principles of equal sacrifice. This is enough to show that a systematic exposition of the whole subject of Public Finance had disappeared from the major works of economists.

Subsequently, however, there emerged a number of writers who took pains in exclusively devoting to Public Finance rather than treating the subject as an insignificant part of economic theory. One of such primary attempts is Bastable's 'Public Finance', published in 1892, but his general treatment of the subject is similar to that of the better-known successor, Dr. Dalton's 'Public Finance', first published in 1922. He has looked at Public Finance from a scientific point of view and has defined the subject as one which concerns itself with the income and expenditure of public authorities and with the adjustment of one to the other. It is important to note that a number of important writers in the concluding years of nineteenth century, like Pantaleoni, Mazzola, Sax, Wicksell and De Viti Marco did introduce many important thoughts in the subject.

1.1.3 MODERN CONCEPT ON PUBLIC FINANCE

The modern concept of Public Finance can be noticed in the well-known text books published since 1920s. Professor A.C. Pigou has not only discussed in details the principles of taxation and merits and demerits of particular taxes with a broad following on war finance, but has made a thorough enquiry into the ways in which the public authorities may influence aggregate income by fiscal measures. Thus, the subject matter of Public Finance which hardly concerned anything more than the issues of taxation to the early writers has now come to embrace the ever-widening field of fiscal policies.

Since the great depression of 1930s and the war-time inflationary period and more particularly, since the publication of Keynes's General Theory, it has been clearly recognised that the discussion on effects of particular taxes and of government expenditure is but a part of the subject matter of public finance and that any complete treatment must include a full discussion of the influence of government fiscal operations on the level of overall economic activity and employment fiscal operations on the level of overall economic activity and employment. The use of taxation, public expenditure and public debt to realise certain extra-budgetary objectives to influence the level of economic activity indicates an important development in the study of the subject of public finance.

While the main problem of high income economies is how to arrest the fluctuations in economic activity and bring about stability in them, the major task facing the low income economy is to achieve rapid economic development. Public Finance has come to recognise this problem and the instruments of fiscal policy are gainfully employed to achieve the goals of stability and growth. Public Finance has no more remained as mere science of taxation, but has increasingly focused attention to the influence of fiscal instruments on the aggregate economic activity like income, investment, employment, stability, growth etc. It is no more the study of a sound finance' requiring always balancing of the budget, but the discussion is now diverted to the question of how

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economy could be influenced by deliberate creation of budget deficits and budget surpluses.

Nurkse believes that Public Finance assumes a new significance in the face of problems of capital formation in underdeveloped countries. Capital accumulation through taxation, public investment on economic infrastructure, control and regulation of economic life and redistribution of income and wealth through fiscal measures, can promote economic development of low-income economies. Thus, the role of Public Finance has assumed increasing dimensions as the state activities are in-roading into widening area of economic life of people.

1.1.4 DEFINITION OF PUBLIC FINANCE

Though different writers define Public Finance differently and the scope of the subject has undergone vast changes, the study of the subject chiefly centres round different aspects of government revenues and government expenditure in relation to the State's economy and people. One of the earliest definitions comes from the English economist. Professor Bastable, according to whom Public Finance is the subject that deals with expenditure and income of public authorities of the State, the relation between these two aspects and the functions relating to the State's financial administration and control.

Similar is the definition given by:

"Public Finance is the study of the principle underlying the spending and raising of funds by public authorities. As a positive science, it is concerned with facts as they exist; it investigates the intricate flux of these financial events and discovers their hidden uniformities by means of patient and systematic inquiry which we call research."

— Professor Shirras

Professor Dalton's treatment of the subject, though similar to that of Bastable is more elaborate and better known. He points out the link that Public Finance has to maintain between politics and economics and defines Public Finance as the subject that is **"concerned with the income and expenditure of public authorities and with the adjustments of one to the other."** After the inroad of new welfare economics into the domain of Public Finance, modern writers have been of the view that any economic activity should ultimately aim at the increased welfare of society and hence, the subject of Public Finance which so intimately studies the governmental activities, should concern itself with the ideals of welfare maximisation.

U.K. Hicks, thus, points out the inadequacy of the market sector of economy which is unable to provide all goods and services needed by the consumers and underlines the necessity of State participation in production and distribution in the society. The main content of Public Finance, according to her, therefore, consists of the examination and appraisal of the methods by which governing bodies provide for the collective satisfaction of wants, and secure the necessary funds to carry out their purposes.

Public Finance deals with the finances of the public as an organised group under the institution of Government. It is concerned with the operation of the 'fisc'

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or public treasury. Hence, to the degree that is a science, public finance is the fiscal science; its policies are fiscal policies, its problems are fiscal problems.

— Philip E. Taylor

Thus, Taylor has attached maximum importance to the attainment of extra-budgetary objectives of public finance that can be secured through operation of fiscal instruments like taxation, public expenditure, public debt management, etc.

Significantly, the modern writers consider government expenditure as a means of attaining policy objectives rather than burdens to be financed.

"Major role of Public Finance is played by government expenditure in altering resource allocation to provide public goods as well as to adjust for externalities and in choosing among alternative expenditure programmes and selecting means of producing public goods".

— Davie and Duncombe

Government expenditure must be financed and, for the purpose funds are raised through taxes and other revenues. Davie and Duncombe, therefore, define Public Finance as the use of Government expenditures and revenues to pursue policy objectives which are seen as emerging from the welfare-increasing actions of individual citizens, private groups and public officials.

Perhaps the most comprehensive definition which is at once of scientific frame and of up-to-date variety is presented by R.A. Musgrave. In terms of his explanation,

"The complex problems that centre around the revenue expenditure process of government is referred to traditionally as Public Finance. while operations of public household involve flows of receipts and expenditure. The basic problems are not issues of finance; they are not concerned with money, liquidity or capital markets; rather, they are problems of resource allocation, distribution of income, full employment, price level stability and growth. We must think of our task as an investigation into those aspects of economic policy that arise in the operations of public budget."

Thus, public budget is implicitly a pen picture of the governmental programmes that can be implemented through the framework of a revenue-expenditure complex. Budgetary provision of public goods and services may be financed either by taxation or by public debt or by both. In both cases, the problems of policies and principles that should guide their administration do arise. It should, therefore, be the task of public finance to search for proper principles and policies relating to taxation, public expenditure and debt management.

Determination of appropriate measures for raising funds implies an understanding of the flow of production from and income through the private economy, and therefore, of the way the whole economy works.[1] The same line of thinking appears in Professor Buchanan's work, according to which, the government, considered as a unit, may be defined as the subject of the study of public finance. What it means, more specifically, is that public finance studies the economic activity of government as a unit.[2]

1. P.E. Taylor—*op. cit.*, p. 3.
2. J.M. Buchanan— "The Public Finance", Richard D Irwin, 1970, p. 16.

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1.1.5 PLACE OF PUBLIC FINANCE IN ECONOMICS

Public Finance occupies an important place in the study of economic life of a society. From brief survey on the historical development of the subject, we have seen how the scope of study of public finance has extended from the narrow aspect like 'Science of taxation' to the wide areas of taxation, public expenditure and public debt together with the other problems of optimal resource allocation distribution of income and employment generation with price level stability and growth. Almost all aspects of economic well-being of the people are today studied in the public finance.

The place of public finance in economics may be described along the following heads.

(i) Concern with Economic Development. Economic development of a society requires among other things, increased production and productivity proper channelisation of economic resources, motivation among agents of production for output maximisation, optimum utilisation of inputs, etc. which are greatly influenced by the use of fiscal instruments and budgetary means that are studied by public finance. Hence, public finance forms an important part of economics. Musgrave, has rightly pointed out that the problems of public finance must be dealt with by economic analysis as well. The general body of economic theory which has been applied so successfully to such special fields as international trade, must be applied with equal rigour to public finance.[3]

(ii) Correcting Deficiency of Private Sector. There are a number of services which are essentially required by the people but which cannot be supplied by the private market as they cannot be subjected to price payment like private goods. Since the services are lumpy and individual cannot be excluded from the benefits of these services, public works etc. And are defined as those services that are consumed in equal amounts by all.[4] Public finance is concerned with this aspect of inability of the private market mechanism. Since these services are essential and since they cannot be supplied though private market, they need to be supplied through the budget free of direct charges (but cost of production is covered through taxation) if they are to be satisfied at all and the subject matter of public finance centres round this problem of the society.

1.1.6 PRIVATE AND PUBLIC GOODS

Introduction

Wants can be classified into private and public wants. Public wants are those wants which are provided through the budget and goods that go to satisfy these wants are called public goods. These goods are made available free of direct charge to the user. Private goods which go to satisfy private wants are financed and supplied by the market on price payments; they do not need any budgetary mechanism.

Private Goods and their Characteristics

The market economy provides private goods and does so efficiently. This type of economy operates on two principles, viz.,

3. Richard A. Musgrave—*op. cit.*, p. V (1959).
4. *Ibid.*—Page 8.

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(i) **Application of Exclusion Principle.** According to exclusion principle, those who do not pay the market price for goods are excluded from their consumption. Thus, A consumes a good because he pays the price for it and B is excluded from its consumption since he does not pay the price. Exchange in the market takes place when goods to be exchanged bear property titles. Existence of property rights requires exclusion.

(ii) **Consumer is Revealed Preference.** Under the existence of exclusion, the market functions as an auction system. Consumers bid for the product and in the process they reveal their preference. Producers take the signal thus given and produce those goods which consumers want. In this way, the market operates on information given by consumers. Those who all fail to provide such information, that is, are unable to reveal their preference will be excluded from consumption.

Public Goods and their Characteristics

Private economics is concerned with the activities of the individual that are directed towards the satisfaction of individual wants. Public finance studies the production activities of the State as directed towards the satisfaction of public wants. Issues involved in this study are the choice of the public services which are to be produced and the determination of their respective shares and the distribution of the cost among the consumers, etc. Therefore, the core of fiscal theory addresses the question of what public services should be provided by the public sector sector and how much. There are several answers to this question. Let us begin by analysing the views of the classical economists.

The classical economists developed the operation of the public sector in the context of a natural order which is based on the principle of non-interference. The need for the public sector arises only in exceptional cases where the market economy fails to perform efficiently. They treated government expenditures and taxation as separate issues.

"Taxes were regarded as a sort of hail that destroys part of the crop".

— De Viti de Marco

Adam Smith provided a broader ground for the study of public finance. But he did not allow an unlimited and unquestioned power to the State. He was in favour of a system of natural liberty that establishes itself of its own accord once governmental restraints are withdrawn. Yet the government is needed and it has to perform three functions namely, (i) protection of the society from foreign invasion, (ii) maintenance of law and order so that every member of the society is protected from the injustice of every other member, and (iii) the erection and maintenance of certain public works such as roads, bridges and canals which contribute to the advancement of commerce and educational institutions for the instruction of the people.

Private and Public Wants

Human wants are the mainspring of economic activity. They are the ends since economic activity is directed toward them. From the point of view of resource use, wants can be classified into private and public wants. Public wants are those wants which are provided through the budget and goods that go to satisfy these wants are called public goods. These goods are made available free of direct charge to the user. Private goods which go to satisfy private wants are financed and supplied by the market on price payments; they do not need the budgetary mechanism.

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Private and public wants, or private and public goods, that go to provide for them, may be classified on the basis of want determination and nature of benefits as under:

Types of Wants

Basis of Want Determination	*Nature of Benefits*	
	Internal	*External*
Individual (Ci)	Private	Social
Imposed (Cg)	Merit	Merit

In the above chart we have private wants on the one hand and two types of public wants, social and merit, on the other. Private and social wants or goods are distinguished on the basis whether the benefit resulting from the satisfaction of these wants is internal or external. Similarity between them rests on the fact that both (private and social wants) reflect individual preferences. Both social and merit wants are public wants. In this respect, they are similar. Difference lies in the fact that social wants are produced in line with consumer preference while merit wants reflect the preference scale of a ruling group and are imposed on the individual consumer. Benefits resulting from merit wants may be both internal and external. Let us now have a close look at the nature of these wants.

Provision of Private Goods

The market economy provides private goods and does so efficiently. This economy operates on two principles: (i) the exclusion principle and (ii) revealed preference.

Exclusion Principle: Simply stated, this principle means that those who do not pay the market price for goods are excluded from their consumption. Thus, A consumes a good because he pays the price for it and B is excluded from its consumption since he does not pay the price. Exchange in the market takes place when goods to be exchanged bear property titles. Existence of property rights requires exclusion.

Revealed Preference: Under the existence of exclusion, the market functions as an auction system. Consumers bid for the product and in the process they reveal their preference. Producers take the signal thus given and produce those goods which consumers want. In this way, the market operates on information given by consumers. Those who fail to provide such information, that is, are unable to reveal their preference, will be excluded from consumption.

Based on these two principles, the market provides private goods efficiently because the benefits derived from these goods accrue to consumers who pay for them. In other words, benefits are internal and consumption is rival. For most goods and services, the market can function well, that is, they can be provided in a satisfactory way.

Provision of Public Goods

There are goods for which preferences will not be revealed fully and effective application of the exclusion principle is not possible. Their consumption is non-rival. They can not, therefore, be provided in a satisfactory way by the market. These are public goods belonging to the category of either social goods or merit goods.

In order to understand the difference between private and public goods properly, let us consider the following three characteristics which all goods and services have in some measure.

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1. Consumption of goods is either rival or non-rival. Rival means competitiveness in consumption. A mango eaten by X cannot be eaten by Y. Non-rival implies jointness in consumption. Street lighting is consumed jointly. The more street lighting one person gets the more street lighting others in that street also get.
2. The costs and benefits of the production and consumption of a good may be internal or external. When costs and benefits of a good are enjoyed exclusively by the producers and consumers of that good, it is called internal. They are external when benefits and costs accrue to third parties. Externalities may be called spillovers, social costs and benefits or neighbourhood effects. If the owner allows his house to fall in disrepute, he suffers an internal loss due to the fall in property value. But his neighbours suffer an external loss since disreputable house brings down the value of neighbouring buildings as well. If A is protected by inoculation from cholera, it is an internal benefit to him. But he confers external benefits too because he is now less likely to infect those who come in contact with him.
3. A consumer has to purchase from a vast array of goods presented before him. He can comprehend the benefits from most of them. In such cases, he is likely to make a rational choice. But benefits in some cases may not be easily comprehended and ignorance might be the reason.

In situation where consumption is non-rival and exclusion principle cannot be applied, consumers do not reveal their preferences. Jointness of consumption rules out the possibility of excluding "free riders" from other people's consumption. On the basis of competitiveness and excludability characteristics, goods can be classified into four cases.

Consumption	*Exclusion*	
	Feasible	*Not feasible*
Rival	1	2
Non-rival	3	4

Case 1 is a clear-cut private-good case which combines rival consumption with excludability. Provision of such good through the market is both feasible and efficient. In the three other cases, market mechanism fails. Market failure in case 2 is due to the non-applicability of exclusion while in case 3 it is because of non-rival consumption. Both impediments are present in the fourth case. Thus, market failure occurs in all cases except the first. The term social good is a applied to cases 3 and 4, while case 2 is the field of merit good.

Social Goods

Social goods are goods which are provided by the State because their consumption is non-rival and exclusion principle is inapplicable. Benefits accruing from them are external. Good examples are defence, law and order, urban parks, etc. It is to be noted that social goods are subject to the principle of consumer sovereignty, that is, they are produced on the basis of individual preferences. In this respect social goods are similar to private goods. Since the satisfaction derived from social goods by an individual consumer is independent of his own contribution, their costs are met through the public budget (tax, for instance) and not through the market where private buyers pay.

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In spite of the technical distinction between public and social goods (the latter is only a part of the former), the two are often used interchangeably. Hence when one analyses the theory of social goods, he, in fact, has often in his mind, public goods.

Merit Goods

In 1959, R.A. Mengrave developed the concept of merit goods. These are commodities that should be provided even if the members of society do not demand them.

Merit goods too are public goods but their provision cannot be explained in the same term as the provision of social goods. The provision of merit goods involves interference with consumer choice, which is substituted by imposed choice. The necessity of imposed choice arises since these goods are under-consumed in a free market because of ignorance and externalities. Education and health services are good examples of merit goods. If left to the free market choice, these goods will not be produced in adequate quantity either because benefits from them (benefits accruing to society as a whole as a result of literacy, for instance) cannot be taken into account in a market economy. Demerit goods are goods which are over-consumed because of ignorance or externalities. The basic characteristics of private and public goods are summarised in the following chart:

Private Goods	*Public Goods*
1. Private costs and benefits	1. Externalities
2. Rival consumption	2. Non-rival consumption
3. Knowledge:	3. Ignorance
(a) Payment and benefit simultaneous	(a) Payment and benefit not simultaneous
(b) Benefits obvious	(b) Benefits obscure
(c) Payee and beneficiary identical	(c) Payee and beneficiary not identical

On the basis of what has been said above, it should be obvious that in the private sector transactions are made in a *quid pro quo* basis, whereas in the public sector benefits are not related to revenue that finances public sector expenditure. When a citizen receives a private benefit, he pays for it directly and individually and he chooses freely what he wants. There is no direct link between cost and benefit in the public sector. Absence of the direct link between costs and benefits exists because most government benefits are collective in nature. So, voluntary payment cannot be used to finance public goods; budget provision is needed. Every citizen benefits equally from a public good whether or not he has paid for it. If voluntary payment method is applied, everybody would like to be a "free rider". The desire to redistribute income is another explanation for the use of the budget principle in the provision of public goods. The acceptance of this goal leads to deliberate violation of the *quid pro quo* principle since it is desired that the poor should get more benefits from goods than they are asked to pay.

Mixed Goods

The distinction between private goods, benefits of which are wholly internal (rival) and public goods (social as well as merit) whose benefits are wholly external (non-rival) might be helpful in understanding the essential differences between them, but it is not realistic because mixed situation of many kinds arises. Problems which a social good

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creates arise in the budgetary context; they may also arise where private consumption or production external benefits.

1.1.7 EXTERNALITIES

Externalities and the Role of Government

Externalities arise from interactions between the production functions of firms or utility (consumption) functions of individuals that are not reflected in prices charged for the goods the production consumption of certain goods gives rise to externalities such as benefits or costs to persons other than those who acquire the goods. With externalities, the need for government action arises (because) to ensure that benefited party compensates the person or firm that is providing the benefits economies or to ensure that the damaged (affected) party receives compensation from the person or firm that reflects the costs.

Thus, when private and social external valuations diverge, government action is needed to impose appropriate taxes on benefited parties or provide subsidies to damaged parties to equalise private and social valuation. But the government need not produce the goods, since the private market can allocate them efficiently once the government insures that their prices reflect social marginal costs. When there is divergence between social and private costs or benefits and the government can make them coincide in an appropriate way. We are discussing below consumption externalities, production externalities, external diseconomies or spill-over effects.

Consumption Externalities

A consumption externality occurs whenever the welfare of one individual is affected by the consumption pattern of another individual on when activities like house painting or lawn mowing, garden rearing etc. create positive externalities since one's well-being is increased by having a neighbour's property well-maintained.

Similarly, entering a congested highway creates negative externalities because when one slows down all other travellers and imposes additional costs upon them, negative externality is created.

In the first case, private valuation (of benefit) is less than the total social benefits received from the activity by the neighbours.

In the second case, the private costs are less than the social costs.

Production Externalities

A production externality occurs when one firm's output enters as an input into another firm's production function. Such type externality virtually exists in every industry, since most firms use materials produced by other firms to produce their own output.

(i) Preliminary economies arises whenever price of an input falls as this scale output (of an other firm) increases. When the scale of the efficient firm in the input producing industry is sufficiently large so that its average costs fall over the relevant range of output. If the input is produced by a natural monopoly firm if its scale is sufficiently large, its

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average cost falls and the other firms which use its output as their input are subject to preliminary external economies.

(ii) Preliminary external diseconomies arises when a firms increases the inputs produced by an increasing cost industry. Example: The output of textiles increases, the unit cost of textiles will rise because the cost of cotton rises or inferior land externality arises to produce cotton.

Example: Aluminium product may be subject to preliminary external economies of the cost of electricity if rises/falls as the utilisation of electricity rises.

It occurs whenever the producer of a given activity cannot realise all the gains, i.e., not forced to bear all the costs that consequently accrue to other forms or members of society. Role of Government as an agent for economic planning and development. Private and public mechanism for allocation of resources.

In order to understand the role of government in the economy, it is necessary to understand the make distinction between economic efficiency, which is referred to as (pareto optimality), and social optimality which is referred to as (social welfare optimum).

Economic efficiency reflects how the free market allocates resources among the production of various goods and how it allocates products among various consumers. It may also show that such allocation of resources may lead to situations that are not efficient or that may be viewed as inequitable from society's point of view.

In a competitively organised market, allocation of resources among consumers and producers may be efficient but this may not be desirable from society's point of view regarding the distribution of economic welfare. In this case, resource transfers will have to be made, which may entail (necessitate) a trade-off (balance) between the economic efficiency and distributional welfare goals of society (social optimality).

A pareto optimum or optimality is said to exist when resources are allocated in such a way that no individual can be made better-off without making another individual worse-off, and the production of no commodity can be increased without reducing the production of another commodity. In principle, an infinite number of pareto optimal resource allocation is possible.

A social welfare optimum/optimality is said to exist when the allocation of resources not only represents a pareto optimum, but also represents a highest level of attainable social (equitable distribution income) given the resource endowment constraints technology tastes, attitudes of the society towards, income distribution and so forth.

1.1.8 GOVERNMENT ROLE IN OPTIMAL ALLOCATION OF RESOURCES BETWEEN PRIVATE SECTOR AND GOVERNMENT SECTOR

Efficient Allocation of Resources

It is a common view that resources should be utilised efficiently and effectively ensuring the promotion of the welfare of the society at large. It is called the objective of economic efficiency or Pareto optimality. Therefore, allocation of resources should be in an economical and efficient manner that cannot be altered to make some persons better-off without making others worse-off. Sometimes, the objectives of efficiency and equity

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are not compatible and create confusion. But, economic efficiency is the main motto of consumer sovereignty which accounts the production of those goods and services that general consumer value most highly. Thus, proper resources allocation decision should be given top priority to achieve optimum utilisation of these resources with minimum sacrifice of others.

Inter-sectoral Resource Allocation

Generally, resource allocation is not made exclusively in a single sector but it determines the optimal mix between the private sector as well as public sector of an economy. However, optimal allocation of resources will exist at any given point of time. It is also called as social balance. In short, inter-sectoral resource allocation and optimal inter-sectoral resource allocation may either coincide or the two may deviate from one another. If not so, then actual resource allocation is sub-optimal or alternatively called imbalance or misallocation of resources in the economy. Optimal inter-sectoral resource allocation between private sector and public sector has been illustrated in Figure 1.1.1.

Optimal and Sub-optimal Resource Allocation

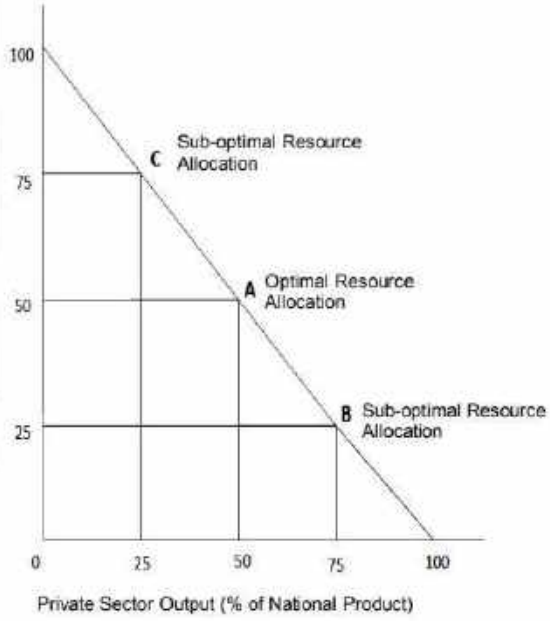

Fig. 1.1.1

In Fig. 1.1.1, private sector output in terms of percentage of national product has been shown on X-axis and public sector output as percentage of national product on Y-axis. Point *A* represents optimal resource allocation between public sector and private sector, i.e., 50 per cent resource allocation in favour of private sector while remaining 50 per cent in favour of public sector. Therefore, point A is the optimum and actual inter-sectoral allocation of resource in an economy. However, in the same figure, point *B* or *C* are the sub-optimal resource allocation, i.e., imbalance in the social balance, i.e., at point *C*, 75 per cent for public sector and 25 per cent for private sector. The distribution of resource at point *B*, is the *vice versa* of point *C*, i.e., 25 per cent for public sector and 75 per cent for private sector respectively. Hence, point *A* is the optimal resource allocation in inter-sector of public and private sectors of the economy.

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Indifference Curve Approach and Optimal Resource Allocation

The inter-sectoral optimal resource allocation can be shown with the help of indifference curve technique. Fig. 1.1.2 illustrates the optimum allocation of resources in the inter-sectors of the economy.

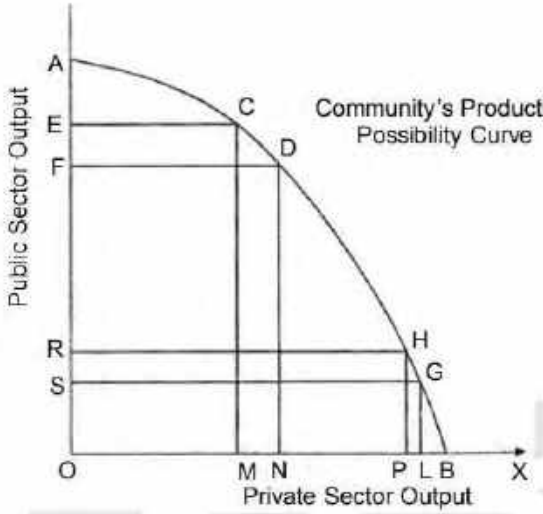

Fig. 1.1.2

In the Fig. 1.1.2, *AB* is the production possibility curve of an economy. It shows the marginal rate of transformation between private goods and public goods with a given productive resources. The higher position of the production possibilities indicates greater production potential due to superior quality of its given total production resources. At point *B*, society's entire resources are allocated to the private sector while at point *A*, all resources are allocated to the public sector. The production possibility curve *AB* is concave to the origin. It means that the scarce resources cannot be substituted with equal efficiency between the production of the public and private goods. Therefore, any reallocation of resources along with upper part of the production possibility curve (*AB*), as from *C* to D, would add more to the private sector output. Additional private sector output has been measured by the distance *MN*. As a result, amount of goods sacrifice in the public sector output is shown by the distance *EF*. This is because of existence of diminishing returns in the production of public goods. On the contrary, along the lower portion of the production possibility curve, as from G to *H*, will add more to the public sector output than the loss suffered in the private sector. This is found due to the existence of diminishing returns in the production of private sector output. In short, unequal trade between the output of public goods and private goods occur on account of following causes:

1. Some economic goods are produced more efficiently with less input cost per unit in one sector than the other.
2. Increasing cost tends to work when too many goods are produced by one sector due to diminishing returns. It always comes into operation in the long-run period.

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Social Indifference Curve Map and Optimal Allocation of Resources

Being familiar with the community production possibility curve, let us study the optimal inter-sectoral resource allocation involving social or community indifference curves. In Fig. 1.1.3, a map of social indifference curves IC^1, IC^2, IC^3, IC^4, IC^5 *and* IC^5 has been drawn. It shows social marginal sales of substitution between consumption of private goods and public goods. It means that each indifference curve shows the various alternative combinations of private and public goods giving constant welfare to the society. We also know that higher social indifference curve means higher level of social welfare since a larger aggregate real output is consumed by the society on a higher social indifference curve. Here, individual preference for public or private goods is meaningless unless these are made effective by the private purchasing power or produced for political representation of public sector.

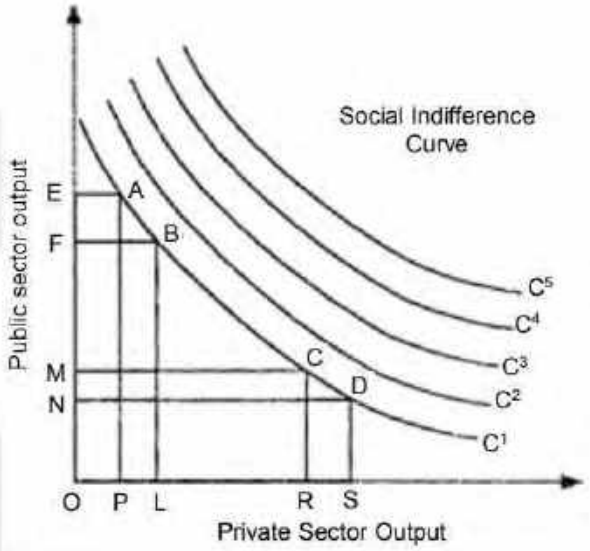

Fig. 1.1.3

The social indifference curves are convex to the origin which shows that along each curve there is a diminishing marginal rate of substitution between public goods and private goods at a given level of social welfare. Toward the upper end of the ICs, quantity of public goods that the society would be willing to sacrifice to attain an additional unit of private goods as greater than towards the lower end of the same curve. For instance, a downward movement on the social indifference IC from point *A* to *B* yields greater loss of *EF* amount of public goods for the smaller portion of gain *PL* amount of private goods. As the society starts consuming more private goods toward the lower end of the social indifference curve, it would be willing to give up a larger quantity of private goods. This has been shown by a movement from *C* to *D* along with the same indifference curve (IC) as it shows the small loss of *MN* of public goods and larger gain of *RS* amount of private goods. Its main reason is diminishing marginal rate of substitution between the consumption of private and public goods. Other reasons are: *(i)* marginal utility of the social goods increases relative to the marginal utility of the other goods which becomes relatively plentiful and *(ii)* social indifference curve is convex and significant loss of both political and economic freedom are incurred as government allocation becomes dominant near the upper end of the curve.

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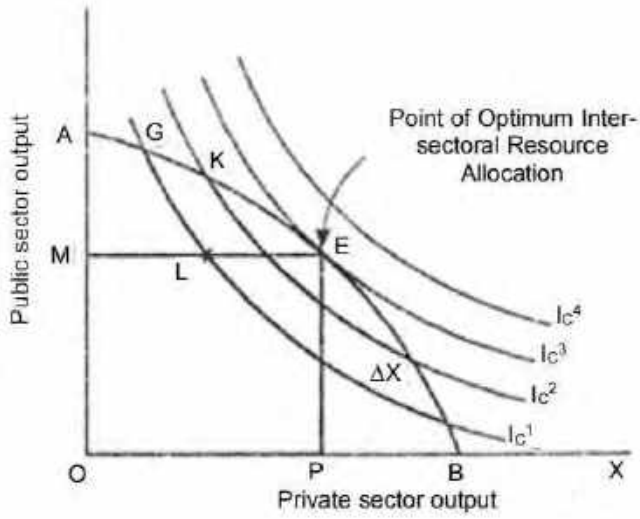

Fig. 1.1.4

The Fig. 1.1.4 combines two earlier figures showing the point of optimal inter-sectoral resource allocation through the social indifference curve approach. In this, the production potential of the society at a given level of resources and technology, is brought into a relevant relationship with society's preferences for the public and private goods. At point *E*, where production possibilities curve *AB* is tangent to the social indifference curve IC^3, is the point of optimum inter-sectoral resource allocation. Here, allocation of resources in a economy provides *OP* output in the private sector and *OM* output in the public sector. In other words, at point *E*, marginal rate of transformation (MRT) in the production of private goods and public goods is equal to the marginal rate of substitution (MRS) in the consumption of these goods. Therefore, *E* can be called the condition of Pareto optimality is satisfied. It is, however, kept in view that actual inter-sectoral division of resources may not take place at the point of optimal resource allocation due to market imperfections *(E)*. Therefore, actual inter-sectoral allocation of resources can be anywhere on the production possibility curve or inside of it like *G*, *K* or *L*. These points are the sub-optimal inter-sectoral division of resources in the economy. It means that effective preferences for economic goods are not being accurately focused by the market and government institutions of allocation. There are also chances that even points *G*, *K* where social imbalance exists, may be the situation of full employment of resources. This can be possible as society is enjoying total welfare even at the lowest social indifference curve.

So, points *G*, *K* represents the situation of full-resource utilisation but not efficient resource utilisation. To conclude, it is only at point *E* where optimal inter-sectoral resource allocation is possible otherwise there is either social imbalance or resource underutilisation or under employment of productive resources of the economy.

1.1.9 SUMMARY

Public Finance is concerned with the income and expenditure of public authorities and with the adjustment of one to the other, adjustment not necessarily to equality, but to whatever arithmetical relationship, in given conditions, is best.

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The economics of public finance is fundamentally concerned with the process of rising and dispersion of funds for the functioning of the government. Thus, the study of public revenue and public expenditure constitutes the main division in the study of public finance.

The basic functions of public finance are: (i) the provision of social goods to satisfy collective wants, (ii) to make proper adjustments in income distribution; and (iii) to use fiscal instruments for economic stabilisation.

The financial operations of public finance can be effectively utilised to achieve various social and economic goals: (i) Public finance can serve the interests of economic policy. Government spending can stimulate private sector, e.g., expenditure on industrial estates. (ii) Public finance is designed to bring about an appropriate allocation of productive resources such that national product is maximised and income distributed equitably. (iii) Public finance can be an instrument of social policy. Through fiscal operations, if national income is equitably distributed, harmony among different classes of people can be achieved. (iv) Financial operations can improve general welfare if major public spending is used for welfare projects. (v) Government's financial operations have a unique significance in developing economies like India when public expenditure is devoted to promote capital formation and investment.

1.1.10 SELF ASSESSMENT QUESTIONS

1. What is Public Finance?
2. State the scope of Public Finance.
3. Give an account of the classical concept in Public Finance.
4. Explain modern concept in Public Finance.
5. Distinguish between Public Finance and Private Finance.
6. Distinguish between private goods and public goods.
7. Analyse the role of Government in optimal allocation of resources between public and private sectors.

1.1.11 Key Terms

1. **Public Finance:** The study of the role of government in the economy, including how it collects revenue and allocates resources for public goods and services.
2. **Government Budget**: A financial plan outlining the government's expected revenues and expenditures for a specific period, usually a fiscal year.
3. **Fiscal Policy:** The use of government spending and taxation to influence the economy, typically to achieve macroeconomic goals such as economic growth, price stability, and full employment.
4. **Taxation:** The process by which governments impose charges on individuals and entities to finance public expenditures.
5. **Public Expenditure:** The money spent by governments on goods and services, including infrastructure, education, healthcare, defense, and social welfare programs.
6. **Public Revenue:** The funds collected by governments through taxation, fees, fines, and other sources.
7. **Budget Deficit:** The amount by which government spending exceeds government revenue in a given period, often leading to borrowing to cover the shortfall.
8. **Budget Surplus:** The amount by which government revenue exceeds government spending in a given period, resulting in savings or debt reduction.
9. **Debt:** The accumulation of past deficits, representing the total amount owed by the government to its creditors.
10. **Public Goods:** Goods and services that are non-excludable and non-rivalrous, meaning that consumption by one individual does not reduce the availability of the good for others, and it is difficult to exclude anyone from enjoying its benefits.

1.1.12 Reference:

1. The Theory of Public Finance- R.A. Musgrave

2. Government Finance (Economics of the Public Sector)- J.F Due and F. Friedlander

3. Modern Public Finance- B.P. Herber

4. A Study of Public Finance- A. C. Pigou

5. Financing Government-M. A. Groves

6. Public Finance in Underdeveloped Countries- A. R. Priest

7. Public Finance and Fiscal Policies- Allan Williams

8. Economics of Co-Public Expenditure- T. Mathew

9. Economics of Control Chapters on functional finance- A. P. Lerner

UNIT - II

2.1 Chapter

PUBLIC EXPENDITURE

Objectives

After completing this chapter, you will be able to:

- Understand the concept of public expenditure
- Know the nature and rise of public expenditure
- Understand various theories of public expenditure
- Know the effects of public expenditure
- Know the welfare aspect of public expenditure

Structure:

2.1.1 INTRODUCTION

Government or public expenditure is that expenditure which is incurred by the public authorities (i.e., Central, State and Local governments) to satisfy the common wants which the people in their individual capacity are unable to satisfy efficiently. Public expenditure is meant to satisfy collective social wants. Public expenditure reflects the decisions of legislative and executive bodies as to the field and scope of public activities and expenses. The actual normal expenditure in any given year is, thus, largely determined by previous legislations and historical trends of governmental action.

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In recent years, the role of government expenditure and expenditure management is growingly recognised in the pursuit of prudent medium-term fiscal policies in developing countries (Premchand and Chattopadhyay, 2004).

In the fiscal architecture, public expenditure can serve as an effective fiscal device to be used by the government to accomplish desired socio-economic goals. Much of the quality of socio-economic life enjoyed in a market-oriented but mixed political economy depends, by and large, on how the government behaves in its spending activity under the fiscal framework of the country. In the contemporary era, all economies, whether developed or developing are mixed political economies with varying degrees of government intervention in the system. As such, public expenditure is crucial in a modern fiscal framework. In fact, the government expenditure constitutes the edifice of fiscal management framework of the budgetary exercise in an economy. In the budgetary processes, the level of public expenditure is determined first and then the sources of public revenue and need for the public borrowing is traced.

The basic problems of developed and developing countries including Malaysia and India, etc. are, however, different. The role of public expenditure, therefore, tends to differ widely in these countries. In general, public spending in developed countries is basically undertaken to check fluctuations in effective demand. In developing economies, on the other hand, public spending reflects government's aspirations, efforts and intentions to promote economic development and accelerate economic growth, to reduce income disparities, improve overall standards of living and eradicate abject poverty in the shortest duration possible. Ostensibly, in a developing country, it is the composition and pattern of public expenditure (as well as pattern of financing) rather than its mere growth in the expanding fiscal framework that is important in achieving the socially desirable objectives. In short, government expenditure has a unique role to play in developing economies such as India, which has a vision for socio-economic transformation and positioning a leading big emerging economy in the global setting into a developed country status.

Current and Capital Expenditure

Technically, in the structure of a budget, most governments classify public expenditure into two: current expenditure and capital expenditure. All sorts of administrative and defence expenditure and debt services are called current expenditure. They are also referred to as non-developmental expenditure. They are intended for continuing the existing flow of goods and services and maintaining the capital of the community intact. On the other hand, capital expenditures are intended for the criterion of net productive assets in the economy. They contribute to increased productive capacity of the nation and therefore, are known as development expenditures. Expenditures on construction of dams, public works, state enterprises, agricultural and industrial development, etc. are instances of capital expenditure.

2.1.2 NATURE OF PUBLIC EXPENDITURE

Public expenditure is not merely a financial mechanism. It is rather a means of securing social objectives. Socialism, in any sense, can be realised only through progressive taxation and their distribution afterwards.

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The traditional economists held the view that the State should not interfere in the general activity, for the government is merely an agent for the people to keep the political organisation intact. Hence, it should spend public funds discreetly and sparingly.

A new approach to public finances has, however, evolved in the thirties since the Keynesian revolution in economic thought. Modern economists conceive that public expenditure has a positive role to play to achieve definite ends. Its goal is to promote maximum social welfare. In fact, the significance of public spending lies in the supply of those essential services by the government for the satisfaction of collective wants, which might not otherwise be provided economically and efficiently by the private sector. Its importance lies in its lubricating quality also, as deficit spending of the government amounts to the criterion of additional money, which facilitates trade and exchange and stimulates further production and growth of national income.

In the modern era, public expenditure has the following objectives: (i) Provision of collective wants in order to optimise society's consumption in a rational way and to maximise social and economic welfare. (ii) Control of the depression tendency in the market economy. Public spendings should be designed to optimise the level of investment in such a way as to maintain full employment with growth. In a free enterprise economy, though public expenditure incurred for appropriate public works programme, the gap of inadequacy of investment in the private sector has to be filled adequately. According to Keynes, public spending is, thus, required to sustain the level of effective demand in an economy. (iii) In a backward economy, public expenditure should accelerate the tempo of economic development by constructing the infrastructure of the economy and increasing the capital formation for augmenting industrial activity and allied production of goods and services. (iv) A better distribution of income is also an equally important goal under socialism. Public expenditure for providing public services should lead to a just distribution of welfare.

Indeed, economic and social environment in a country are profoundly affected by public spendings. In recent years, with the increase in its scope and magnitude, the economic consequences of public expenditure are very significant in the realisation of the general economic welfare. Public expenditure affects economic welfare in a community through its effects on production, distribution, and economic growth at large.

Public expenditure has a vital role to play in the developmental process of a country. It can promote economic development as follows:

1. By building economic overheads, e.g., roads, railways, irrigation, power, etc., the tempo of economic development can be boosted. Similarly, undertaking of social overheads such as hospitals, schools, etc. are also of great help.
2. By bringing about balanced regional growth, public expenditure can channelise the allocation of resources in a proper way and avoid lopsided development and can correct regional imbalances. More public spending can be incurred in the backward regions to uplift their economy.
3. By augmenting the development of agriculture and industry.
4. By exploiting and developing mineral resources, coal and oil.
5. By rural electrification programmes, it can bring about rural development.

In short, public expenditure has to create and maintain conditions conducive to economic development. It has to improve the climate for investment. It should provide incentives to save, invest and innovate.

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The major objects of public expenditures are summarised below:

- Administration of law and order and justice.
- Maintenance of police force.
- Maintenance of army and provision for defence goods.
- Maintenance of diplomats in foreign countries.
- Public administration.
- Servicing of public debt.
- Development of industries.
- Development of transport and communications.
- Provision for public health.
- Creation of social goods.

2.1.3 RISE OF PUBLIC EXPENDITURE

Till the 19th century, public expenditure was very important as the doctrine of *laissez-faire* policy was in vogue and under the concept of sound finance, balanced budgets to its minimum size was considered to be the ideal. Adam Smith recognised only a limited scope of government functions such as: (i) to protect society from violence and invasion; (ii) to protect every member of society from the injustice or oppression of every other member of it, and (iii) to create and maintain certain public works and certain public institutions which it can never be for the interest of any person or group of persons, to erect and maintain; when these involve high expenses with low returns.

In the 20th century, however, under the dogma of welfare state, the functions of the state have been enlarged and the significance of public expenditure has come to the limelight.

In modern times, public expenditure in all countries has increased tremendously. In India, for instance, the aggregate public expenditure of the Central and State governments together has increased from ₹ 8,847 crores in 1970-71 to ₹ 60,748 crores in 1983-84. The increasing trend of public expenditure is clearly revealed by the data presented in Table 2.1.1.

TABLE 2.1.1: AGGREGATE PUBLIC EXPENDITURE OF CENTRAL AND STATE GOVERNMENTS IN INDIA

(₹ in crores)

Year	Aggregate Public Expenditure (Current + Capital)	Public Expenditure as a Percentage of GDP
1970-71	8,847	22.9
1980-81	39,160	28.8
1990-91	1,66,818	30.9
1991-92	1,90,174	30.9
1992-93	2,08,494	29.5
1993-94 (R)	2,38,370	29.7
1994-95	2,66,568	29.1

Source: RBI Report on Currency and Finance, Various Issues.

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2.1.4 WAGNER'S LAW OF INCREASING STATE ACTIVITIES

A German economist, Adolph Wagner was the first economist to systematically observe the historical facts of increasing expenditure activities of public authorities particularly in his own country and to explain the causes of growth in public expenditure in terms of his famous "law of increasing state activities." Wagner explains his law in the following words, "Comprehensive comparisons of different countries and different times show that, among progressive people, with which alone we are concerned, an increase regularly takes place in the activity of both the Central and the Local governments. This increase is both extensive and intensive; the Central and Local governments constantly undertake new functions, while they perform both old and new functions more efficiently and completely. In this way, the economic needs of the people, to an increasing extent and in a more satisfactory fashion, are satisfied by the Central and Local governments."

If we study the expenditure trend of modern states, we find that Wagner's law is perfectly valid and that economic growth of a country has always been accompanied by increasing state activities and, hence, increasing public expenditure. F.S. Nitti studied the expenditure trend of public authorities in widely varying countries of the world and concluded that centralised and decentralised governments, war-like and peaceful nations, large and small nations, show essentially similar tendencies towards market increase particularly during the nineteenth century. Has Nitti been able to include the first half of the twentieth century in his study, he could have shown not only a continuation but an acceleration of expenditure growth. The accelerated growth of public expenditure was rather more prominent in the second half of twentieth century and will continue to be so in the coming decades.

The Wagner Hypothesis

According to Wagner's law, the expenditure of public authorities has a continuous increasing trend due to three reasons. Firstly, the expenditures on basic functions of the state were expanding. These functions traditionally are defence, administration and maintenance of law and order. The variety and coverage of such functions have gradually increased. The expenditure on defence, for example, has progressively expanded.

A Theoretical Analysis of Public Sector Growth

According to Adolf Wagner, there exists a functional relationship between the growth of an economy and the relatively increasing governmental activity through the expansion of public sector. He, thus, set a hypothesis which contends that the real per capita output of the public sector grows as a proportion of aggregate economic activity, as the real per capita income tends to rise in a modern welfare state. That is to say:

$$\frac{(PCG)t_2}{(PCI)t_2} > \frac{(PCPG)t_1}{(PCI)t_1}$$

where, $PCPG$ = Real per capita output of public goods

PCI = Real per capita income

t_1 = Initial point of time

t_2 = Later point of time

The Wagner Hypothesis of the relative growth of public sector economy over a period of time may be presented in graphical terms in Figure 2.1.1.

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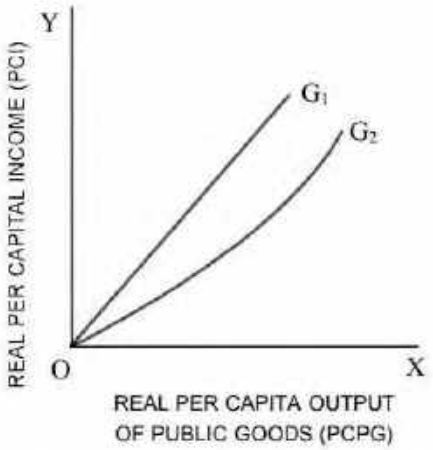

Fig. 2.1.1: The Wagner Hypothesis

In Figure 2.1.1, X-axis represents the real per capita output of public goods (*PCPG*) and the Y-axis the real per capita income (PCI). Time factor is implicitly considered the third dimension.

Line G_1 is taken as a reference point which represents a constant proportion of public sector goods in aggregate real output of the economy over a period of time. Thus, along with the line G_1, we have:

$$\frac{(PCPG)t_1}{(PCI)t_1} > \frac{(PCPG)t_2}{(PCI)t_2}$$

Taking G_1 as the reference point, line G_2 is drawn which measures the relative expansion of government activity in terms of the increasing relative proportion of per capita real public goods in the national outputs over a period of time, thus,

$$\frac{(PCPG)t_2}{(PCI)t_2} > \frac{(PCPG)t_1}{(PCI)t_1}$$

because the arts and science of military activities have increasingly become sophisticated, but also because outlays on men, materials and maintenance have been on the rise. Similar is the case with expenditure on internal protection and administration. Increasing areas of administration and government machinery with expertise have become more and more expensive.

Secondly, with the passage of time and emergence of newer philosophy of state-craft, the functions of public authorities have far exceeded the traditional state activity area of defence, justice, maintenance of law and order and of social overheads. Modern nations were gradually emerging as welfare states under which state activities relating to public welfare were expanding in newer areas of responsibility. Socio-cultural development and social security measures required increasing government expenditures like those on education, public health, housing food subsidy, input supply, old age pension etc. and other public welfare programmes.

The third reason, according to Wagner, was the state activity relating to public goods. The necessity to provide social and merit goods through budgetary means free of direct charges, was increasingly recognised. Thus, state activities expanded to the areas like irrigation and flood control projects, construction and maintenance of public parks,

provision of education and health care, building up of economic overheads, etc. These activities meant heavy investment in public enterprises. NOTES

This is the "law of increasing state activities" as advanced by Adolph Wagner. His theory based on the historical study of other countries public expenditure supports the theory as shown by Nitti. The gradual growth in public expenditure may be obstructed sometimes due to shortage of funds. But this is only a short-term phenomenon. Wagner says that the trend of increasing state activity will be regained in the long run.

Wagner has not, however, established a specific functional relationship between the rate of growth of economy and the growth rate of public expenditure. In the initial stage of development, the growth of public expenditure will undoubtedly be at a higher rate than the growth rate of national income, but it will be lower than the rate of growth of national income when the economy attains maturity. Because the theory is based on historical experience of the nineteenth century after which the world underwent many changes which compelled enormous increase in state activities, the degree of future rise in public expenditure could not be predicted.

2.1.5 WISEMAN-PEACOCK THEORY AND CRITICAL LIMIT HYPOTHESIS

Two more important ideas about the nature of increase in public expenditure need our close attention. One is based on the findings of Wiseman and Peacock[1] on their study of public expenditure of England for the period of first half of the twentieth century, while the other is the 'Critical Limit' hypothesis of Colin Clark.[2]

The study of Wiseman and Peacock shows that public expenditure does not maintain a smooth rate of continuous increase, but jumps upward at intervals due to recurrence of abnormal situations. Hence, the rising curve of public expenditure has kinky points of change as distinguished from Wagnerian law of continuous increase. Thus, in Fig. 2.1.3, kinky rise in public expenditure occurs at points *A*, *B* and *C* in the periods 1, 2 and 3 respectively as against the continuous rise according to Wagner's law shown in Fig. 2.1.2. The kinky movement from *A* to B or from *B* to *C* due to emergence of abnormal need for increase in public expenditure is called the **'displacement effect'**. In the situation of such jump in public expenditure, the existing revenue earnings of government falls much short of the need. This requires an upward earnings of revenue mobilisation and a review of the situation is made both by the government and the tax-paying public. Such review is referred to as **'inspection effect'**. Wiseman and Peacock argue that though increased revenue mobilisation at this stage will undoubtedly generate some displeasure among taxpayers in the initial stage, they will gradually prepare themselves to accept this tax pressure and attain a new level of **'tax tolerance'**.

The study also experiences that along with Kinky rise in public expenditure, it is the Central Government that comes to assume larger and larger role of State activities leaving lesser responsibilities to the regional and local public authorities. This has been referred to as **'concentration effect'** of increasing state activities.

1. J. Wiseman and A.T. Peacock—"The Growth of Public Expenditure in the United Kingdom", 1961.
2. Colin Clark—"Public Finance and Changes in Value of Money", *Economic Journal*, December, 1945.

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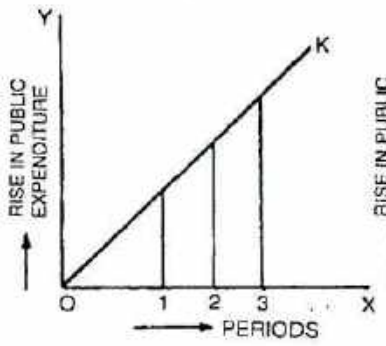

Fig. 2.1.2: Wagnerian Increase in Public Expenditure

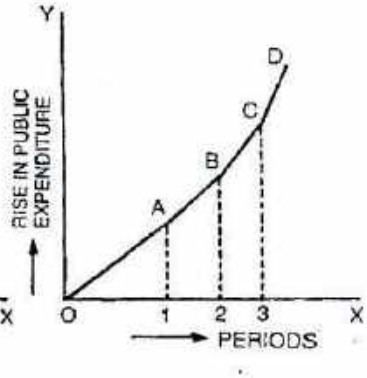

Fig. 2.1.3: Kinky Increase under Wiseman-Peacock Hypothesis

Colin Clark, on the other hand, in his 'critical limit' hypothesis argues that when public expenditure reaches 25 per cent of the total economic activity or the aggregate amount of expenditure in the country, the taxpayers' ability to pay more tax is exhausted. Any further public expenditure would, therefore, mean disincentive to producers and fall in production due to taxation beyond tolerance level. Since, on the other hand, increase in government expenditure would constitute rising demand, the result would be inflation in the economy.

There are, however, defects in both these theories, Wiseman-Peacock hypothesis unduly stresses on recurrence of jumps in public expenditure. Along with the assumption of larger responsibilities by the modern states relating to public welfare, growth in public expenditure has become a regular compulsion rather than occurring in abnormal situations. The situations which were once considered abnormal have come to be now regarded as normal ones. Similar is the undue emphasis given by Colin Clark on his critical limit of 25 per cent. In the modern world, there are many countries incurring public expenditure much beyond this limit without having to face worse situation than those which have always kept their public expenditure below the critical limit.

2.1.6 CAUSES OF GROWTH IN PUBLIC EXPENDITURE

The rising trend of public expenditure in modern times may be attributed to a multitude of causes. The major causes of public expenditure growth are spelled out below.

1. Income Elasticity and Increase in Per Capita Income: According to Musgrave, a rising share of public expenditure in national income is associated with a rise in per capita income which over a period of time may cause a relative rise in public expenditure. This is because the demand for public goods tends to expand with the rise in per capita income. Usually, it rises faster than the latter. Hence, the income elasticity of public expenditure (IEPE) turns out to be greater than one. Musgrave estimated the IEPE for the USA as 4.8 for the period 1890-1963 and 4.5 for the UK in 1890-1955.

2. Welfare State Ideology and Wagner's Law: The modern state is a welfare state. It aims at promoting the economic, political, and social well-being of citizens. It makes every effort to improve the living standard of the common people. For this purpose, it has to undertake many functions and services never visualised before. Even in an avowed

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capitalistic economy, there has been increasing state intervention, through legislative and administrative measures, for augmenting production and improving distribution. Many wants which were formerly satisfied individually by private means are now satisfied collectively through public expenditure.

In the classical era, the state was assumed to have a very limited function under the laissez-faire policy. The functions of the state were restricted to justice, police, and arms.

Today, however, the role of the state has changed under the welfare criterion and there is a persistent trend towards an extensive and intensive increase in the scale of governmental performance. Apart from performing old functions more efficiently and on a larger scale, the modern state constantly undertakes new functions and added responsibilities day by day. It now embraces many new ideas, such as social insurance, unemployment relief, and provision for underprivileged classes. In order to reduce inequalities of income, the state has to spend a large sum on free and cheap medical aid, subsidised food and housing and free education. Especially in underdeveloped countries, such as India, the state expenditure on these social services is rising fast. In India, the state expenditure on these social services has gone up from ₹ 472 crores in the First Plan to ₹ 17,182 crores in the Sixth Plan. In the Eighth Plan, it was envisaged to be ₹ 79,012 crores. (See Table 2.1.2, for Plan-by-Plan details).

TABLE 2.1.2

Plan	Amount (₹ in crores)
1st Plan	472
2nd Plan	855
3rd Plan	1,492
3rd Annual Plan	976
4th Plan	2,985
5th Plan	6,893
6th Plan	17,182
7th Plan	–
8th Plan	79,012

Fundamentally, public expenditure in modern times has an increasing trend on account of the "ever-increasing scale of the state activities." Adolf Wagner, a German fiscal theorist of the nineteenth century, propounded this theory, according to which there is a persistent tendency towards an increase in the expenses and functions of the state, that is, there is a functional relationship between state activities and the relative growth of public expenditure, owing to the "social progress" to be realised through state participation in economic fields. Indeed, the welfare aspect of government activity is appropriately described by Wagner as, "the pressure for social progress." In Wagner's opinion, the pressure for social progress may be regarded as the root cause of the relative growth of public expenditure in modern times. Due to the pressure of social progress under the welfare state theory, in addition to the maintenance of law and order, government participation in the economic field for the provision of some goods, such as communication, education, medical facilities, etc., was necessitated. In short, the Wagner

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hypothesis states that in a welfare state, as the economy expands, public expenditure will also tend to increase persistently. (See, Appendix to this chapter for future details).

3. Effects of War and the Need for Defence: The tremendous growth in the public expenditure may also be attributed to wars and threats of wars in modern times. In the Second World War, countries like England incurred heavy war expenditures, amounting to 15 million pounds per day. Wars and threats of war and the consequent defence needs compel the governments to spend more and more on provision of war goods.

Due to the invention of nuclear weapons, there is always a danger of foreign aggression. International political situation is uncertain and insecure. Modern states are already facing cold war. As such, every nation has to prepare itself for a strong defence.

The defence expenditure is, thus, continuously rising. It contains expenditure on war materials, maintenance and growth of armed forces, naval and air wings, expenses on development of military art and practice, pensions to retired war personnel, interests on war debt, rehabilitation cost of war, etc.

Peacock and Wiseman have referred to the 'displacement effect' in post-war period when higher taxes and higher revenue collection drive of the war period is continued by the government, finding it easy and attractive. The displacement effect may further be supplemented by a 'scale hypothesis', i.e., adoption of new social welfare schemes by the government on a permanent basis.

4. Resource Mobilisation and Ability to Finance: When the government innovates more and more methods of taxation and resource mobilisation, its ability to finance public expenditure increases, the size of public expenditure grows, public sector outlays could be increased by more taxation yields, public debt, foreign aids and deficit financing.

5. Inflation: With the rising prices, the government has to keep an increasing public expenditure to carry on its functions and maintain the supply of public goods intact. During inflation, the government has to pay additional D.A. to the employees which obviously calls for an extra burden on public expenditure.

6. The Role of Democracy and Socialism: The recent growth of democracy and socialism everywhere in the world has caused public expenditure to increase very much. A democratic structure of government is inevitably more expensive than a totalitarian government. In India, democracy has certainly become a costly affair. Expenditure on election and by-elections is increasing. Number of ministries and executive offices has also been increased. Further, the ruling party has to fulfill its promises and launches upon new policies and programmes to achieve socialist objectives, at least to persuade public opinion in its favour. This also requires increasing state expenses in order to provide new amenities and opportunities to the people at large.

7. The Urbanisation Effect: The spread of urbanisation is an important factor leading to the relative growth of public expenditure in modern times. With the growth of urban areas, there has been an increasing tendency of expenditure on civil administration. Expenses on water supply, electricity, provision of transport, maintenance of roads, schools and colleges, traffic controls, public health, parks and libraries, playgrounds, etc. have increased enormously in these days. Likewise, the expenditure on courts, prisons, etc. is increasing, especially in the urban sector.

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8. The Rural Development Effect: In an underdeveloped country, the government has also to spend more and more for rural development. It has to undertake schemes like community development projects and other social measures.

9. The Population Effect: A high growth of population naturally calls for increase in public expenses as all state functions are to be performed more extensively. Rising population also poses various problems in poor countries. The state will have the added responsibility of solving such problems as food, unemployment, housing and sanitation. Further, overpopulated countries like India will have to check the population growth. The state has, therefore, to spend more and more on family planning campaigns every year.

10. The Growth of Transport and Communication: With the exparsion of trade and commerce, the state has to provide and maintain a quick and efficient transport system. Transport being a public utility, the state has to provide it cheaply also. Hence, railway and passenger transport are nationalised. Government has, therefore, to run transport services even at a loss. This obviously calls for a high expenditure for maintenance and expansion. Further, the government in a poor country has to spend a lot on constructing new railway lines, good roads, new roads, national ways and highways, bridges and even canal to connect the different areas with a smooth transport system, as a pre-condition to economic growth.

11. The Planning Effect: In a less developed economy, the government adopts economic planning for the development of the country. In a planned economy, thus, when the public sector is expanding its role, the public expenditure obviously shows an increasing trend.

In India, for instance, the public sector outlay during the First Five Year Plan was just ₹ 1,960 crores, which is now envisaged to be ₹ 4,34,100 crores during the Eighth Plan period (1992-97).

12. The Concept of Functional Finance: Today, the notion of public finance has been changed from sound finance to functional finance. The efficacy of fiscal policy has been recognised as a controlling measure during cyclical fluctuations. Thus, the government has to incur a huge public expenditure during a period of recession or depression.

In a mature economy, the policy is thus designed to maintain full employment and price stabilisation. In a less developed economy, however, the theory of functional finance requires the growth of pubic expenditure in the accomplishment of the state functions visualised in the context of the development strategy adopted by the country. Government is required to pay more for the goods and services bought. In fact, there is a vicious circle between public spending and inflation. A huge public spending causes inflation which, in turn, calls forth more spending and so on.

Colin Clark on this issue, however, opines that inflation evitably occurs when the public expenditure exceeds 25 per cent of the aggregate national income, even when the budget is balanced.

Clark's hypothesis is, however, difficult to verify empirically and there can be a lot of controversy upon the critical limit so assigned. It must, however, be recognised as a hard fact that public spending beyond a stipulated limit will cause inflation where there does exist initially some adequate excess capacity in the economy to provide for the increased demand or in the absence of any such unused capacity, if the additional

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increase in public expenditure is not counterbalanced by a reduction in private spending. As a matter of fact, in underdeveloped countries, there is always the danger of inflationary spiral caused by excessive public expenditure by the enthusiastic government, for the simple reason that the gap between the production potentiality frontier and the actual production frontier will be slow on overall paucity of resources and efficiency, which are the basic characteristics of a poor country.

However, no precise limit can be laid down for public expenditure in a democratic society. An increase in public expenditure is certainly justifiable when it is not wasteful and has no tendency to generate inflation. In a democratic country, of course, too much interference by the state is unwarranted. A democratic state should be prudent in public spending. The theoretical optimum, is however, that the social marginal benefit of expenditure in all directions should be equal, and just balance the marginal social sacrifice involved in raising additional revenue.

2.1.7 EFFECTS OF PUBLIC EXPENDITURE

Public expenditure, in modern government finance, is regarded as a means of securing social ends rather than just being a mere financial mechanism. In present times, Wagner's law of increasing public expenditures — both extensively and intensively — has universal application. Public expenditure is significant in modern economy because it produces many direct and indirect socio-economic effects. A brief account of these effects is presented below:

(a) Effect on Consumption: On account of public expenditure, the size of consumption tends to increase in the economy. Since public expenditure tends to redistribute income in favour of the poor people and their marginal propensity to consume being high, the overall level of consumption tends to improve.

Public expenditure provides social goods for consumption, such as public parks, playgrounds, museums, libraries, etc.

Public expenditure provides free medical care, education etc. so that the real income of the beneficiaries improves and their capacity to consume and save also improves.

(b) Effects of Public Expenditure on Production: Dalton rightly puts that: "Just as taxation, other things being equal, should reduce production as little as possible, so public expenditure should increase it as much as possible."

Following Dalton, we may specify the three interrelated effects of public expenditure on production as under:

(i) Efficiency Effect,
(ii) Incentive Effect, and
(iii) Allocative Effect.

(i) Efficiency Effect: Public expenditure may tend to affect the ability of the people to work, save and invest, which is described as 'efficiency effect.' The mode and pattern of public expenditure determine largely its influence on the ability to work, save and invest in a community. Public expenditure designed to augment the efficiency of people will certainly improve their ability to work. When a person's ability to work rises and his earnings increase, consequently, his ability to save also improves. In fact, public expenditure may raise efficiency and ability to work of the people by the direct provision

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of public goods and services, especially to the poor sections of the society. For instance, public expenditure is incurred for the supply of subsidised food and housing, free medical care, free education, etc., to the poor people, which seeks to improve their standard of living and thus their ability to work in turn. Public expenditure on education also helps in raising productivity and efficiency by improving the mental ability of the people to work. Technical education, for instance, makes possible the availability of a body of trained workers or industries.

All socially desirable expenditure by the government also tends to increase the ability of the beneficiaries to save when their consumption expenditure is reduced on account of low-priced or free availability of such socially-made consumption goods. When savings rise, through proper mobilisation, the ability of the investing public can also rise. When investment is appropriately made, capital formation may occur. This, in turn, would facilitate the intensive use of capital in all productive activity. Consequently, productivity in general would rise leading to further improvement in efficiency and ability to work and produce.

(ii) Incentive Effect: As for the incentive to work and save, much depends on the character of public expenditure and the public policy. Public expenditure sometimes may kill the desire to work and save by creating exceptions of future benefits from the state.

In fact, the provision of old age pension, sickness and unemployment relief, etc., have an adverse effect on the precautionary motive of savings, as such the people may not be willing to work hard and save more out of prudence. Similarly, the likelihood of unconditional fixed grants in the future like war pensions and interest on war loans may not increase the recipient's will to work and save. On the contrary, it is likely to decrease it where demand for income in terms of effort is highly inelastic. However, if state benefits are conditional and judiciously administered, then it will not have such adverse effects. For instance, if unemployment allowance is paid only in the event of unemployment and is smaller than the earnings lost, it will never diminish the present desire to work.

Similarly, the expenditure policy of the state influences the decisions of the people regarding their future savings and investment. If the people do not expect any rise in their income in the future, their desire to work is adversely affected. Likewise, if they presume that their present savings and investment will not yield any substantial income or benefits, they are not induced to save more. Thus, the inflationary trend generated by increasing unproductive and wasteful public expenditure which deteriorates the value of money day by day, obviously kills people's incentive to save more, while a prudent and economically-devised public spending, which promotes capital formation and development projects, certainly induces the people to save and invest more.

(iii) The Allocative Effect: Public expenditure generally tends to have beneficial effect on production through the allocation of resources among different uses and regions.

1. Public expenditure causes diversion of economic resources from one use or employment to the other. Basically, it diverts resources from private use to public use having greater returns and social benefits. Such diversion naturally augments the productive power of the community. The public expenditure on economic overheads like roads, railways, irrigation projects, etc. helps in accelerating the tempo of economic progress. Particularly, expansion of railways and development of new roads, link villages and towns and open new areas of trade and commerce, as a result of which the size of the

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market expands and industrial growth takes place so that resources are more effectively and efficiently used. Criterion of such social overheads through diversion of economic resources from private use to public use is very essential in a developing country. Such public expenditure in the long run, helps to boost up the private investment also as it would provide incentives to the private sector by widening the size of markets for various goods and services. Bounties and subsidies by government also tend to help many industries and agricultural activities.

2. The public spending also exploits the unutilised resources of the economy. The public sector invests in certain key and heavy industries like iron and steel, fertilizers, chemicals, etc., where the private sector is generally shy.

3. The forms of public expenditure which increase the productive power and are socially very much desirable for the transfer of resources are generally of the following types: (i) debt redemption, where the loans repaid will generally be reinvested; (ii) productive projects like irrigation, afforestation, land reclamation, power and transport development, etc. in a developing economy, which have long gestation periods, so the private sector is shy in these fields; (iii) promotion of education, research, invention and training; (iv) provision for public health; and (v) social security. Especially, public spending on education, training and public health which tend to improve the human resources of the country has far-reaching effects on the efficiency and productivity and optimum use of overall economic resources.

4. It is wrong to assume that the public expenditure on defence and public administration causes diversion of resources from civilian use to the government sector and that, therefore, the amount of consumption goods with the people is reduced as the pattern of output is changed when resources are diverted and exploited for war goods and weapons rather than for the consumption of the common people. Expenditure on defence is, however, not unproductive. It is inevitable in the modern world for the preservation, protection and security and independence of the nation. Without peaceful atmosphere, no economic activity can be carried on in full swing. Thus, this sort of public expenditure (on defence, police, justice, etc.) is required to create conditions for the better and optimum use of the existing resources of the economy.

5. Public expenditure can bring forth a better allocation of resources as between present and the future. In a free enterprise economy, individuals make little provision for the future as they are always motivated by immediate gain. The state is, however, a trustee of future generation as well; so it has to safeguard their interest too by making adequate provision of the future. Thus, certain types of public expenditure such as those on multipurpose projects, road development, urbanisation schemes, etc., do not yield immediate returns but confer social and economic benefits on the future generations. Dalton, however, suggests that the public expenditure on various social overheads must be distributed in such a way as to achieve optimum results by balancing the present and the future.

6. Some Keynesian disciples, however, hold the view that diversion of resources through public expenditure should be justified only in those instances when the volume of new investment may not equal the volume of new savings. Such inequality of savings and investment would result in instability, inflation or deflation and growing unemployment in the economy. Thus, state intervention is necessary to maintain economic stability. The gap in saving and investment in the private sector should be

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filled up by public spending and investment in public works programme. Thus, public expenditure must fluctuate to overcome cyclical fluctuations in a capitalist economy.

7. Public expenditure also results in diversion of resources between different regions and thereby reduce regional and territorial inequalities. Special expenditure may be made by the state in backward areas to bring about a regional balanced growth in the country. This sort of diversion of resources between regions is generally effected in a federal state by measures like grants-in-aid, under which the Central government gives grants to State governments and State governments assist Local governments so that the resources are transferred from more developed to the less developed areas. Moreover, under the planning programme, the government may pay more attention to the backward regions and pave special facilities or concessions to the new industries and activities in such areas. For instance, in recent years, under its various plans, the Government of India has been setting up industrial estates in less developed areas in order to have a balanced regional growth of the country as a whole.

In a mixed economy like that of India, where both the private and public sectors have their due importance, the public expenditure and its influence on the diversion of resources, ability and desire to work, save and invest are of great significance for the economic development of the country.

(c) Effects of Public Expenditure on Distribution: An important objective of the modern state policy has been the reduction of inequality in the distribution of income and wealth. For a socialistic pattern of society like ours, of course, this has been a major goal of public policy.

Public expenditure is considered to be an important instrument by which inequalities in income and wealth can be reduced. Dalton, for instance, puts, "the system of public expenditure is best, which has the strongest tendency to reduce the inequality of income."

Public expenditure which is in the form of money grants, supply of social goods and services, free or below cost and subsidies, certainly affects the distribution of income in a socially desirable way. By and large, thus, the effect of public expenditure on distribution depends upon the nature of spendings made by the government. There are certain types of public spendings which benefit new individuals or a few sections only, while others which counter benefits a few individuals or few sections only, while others which counter benefits on the society as a whole. Expenditures which are specially incurred to benefit the low-income strata of the society, such as those on social services like free medical aid, free education, unemployment relief, etc. will obviously benefit the poor more than the rich, thus bringing about redistribution of income when the rich are taxed more to finance this type of public spendings. Expenditures which bring benefits to the society as a whole are those relating to general improvement such as good roads, highways, railway electrification, water supply, defence, policy, courts, etc. This does not bring about any appreciable redistribution of income, since all are equally benefited, or sometimes the rich are benefited more than the poor. Police, and courts, for instance, are very useful to the rich who have money and property to protect, while the poor have no such worries, so they get the least benefit from these.

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2.1.8 THEORIES OF PUBLIC EXPENDITURE

There are two basis principles which govern the "optimal" provision of public expenditure and public goods. These two principles are "Ability-to-pay" Principle and the "Benefit" Principle. They will be analysed in the context of public spending below.

Pigou and Ability-to-pay Theory: The Principle of Balance

The application of the ability-to-pay theory of A.C. Pigou for determination of the optimum level of public expenditure has received wide acclaim. He says that goods and services which are provided by government departments and can be sold for fees so arranged as to cover cost of production of public goods. The amount of resources which should be devoted to these purposes is determined automatically by public demand. But fees can cover neither bulk of non-transfer expenditure of government such as defence, civil administration and so forth nor transfer expenditure. "Hence, there is no automatic machinery to determine how far expenditure shall be carried; and some other method has to be employed."

Debt services, war pensions, old age pensions – all called current transfer expenditure is regulated by practically irrevocable contracts. But large parts of non-transfer expenditure are optional. The optional parts of public outlay – transfer as well as non-transfer – are to be "regulated with some reference to the burden involved in raising funds to finance them". And he propounds the principle of balance based on the concept of margin. The optimum amount of government expenditure is determined at the point at which the satisfaction obtained from the last rupee spent is equal to the satisfaction lost in respect of the last rupee called upon by government service. Pigou states the conditions when government expenditure could be larger. First, the greater is the aggregate income of the community, the larger will optimum amount of the government expenditure be. Second, suppose new opportunities for expenditure by government are opened up but there is no corresponding opportunity for private expenditure. In this case, the balance between marginal benefit of expenditure and marginal disutility of revenue will be struck at a higher point. Third, given aggregate income and population, greater the concentration of income in the hands of a few rich persons, higher the optimum level of public expenditure. It is for the simple reasons that tax scheme can be so framed as to raise a given revenue with lower marginal sacrifice.

Equality of marginal satisfaction of expenditure with the marginal sacrifice of raising revenue – which is called – 'the principle of balance' can be applied to the distribution of government resources "between battleships and poor relief", that is, between different types of expenditure by the Government. As Pigou states, "..... just as an individual will get more satisfaction out of his income by maintaining a certain balance between different sorts of expenditure, so also will community through its government." Expenditure should be so distributed among different heads that the last rupee "devoted to each of them yields the same return of satisfaction".

This theory suffers from a number of weaknesses. The most damaging shortcoming is its dependence on interpersonal comparability of utilities. Another weakness is that it takes the distribution of income as given.

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The Benefit Principle

Prof. Erik Lindahl in his 'Voluntary Exchange Theory' propounded the optimal determination of public expenditure on the basis of benefit principle. It was further developed and refined by Johansen and Bowen. The most recent improved version of this principle is presented by Samuelson and Musgrave.

Lindahl's Voluntary Exchange Theory for Determination of Public Expenditure

Lindahl for the first time put forth the theory the basic of benefits principles for determination of optimal allocation of public expenditure for producing social goods. From microeconomic theory, we learn that the price mechanism, under certain conditions, can lead to the realisation of Pareto optimality. Such a price mechanism does not exist for the provision of public goods and services because they are jointly consumed. Hence, they cannot be split up and sold to individual buyers. Further, once these goods and services are supplied, all members of the society consume them – those who pay for them as well as those who do not (i.e., the free rides). In spite of these difficulties, attempts have been made to construct a theory of public expenditure based on price mechanism as applicable to private consumption. The first clear statement of this theory was provided by the Swedish economist Erik Lindahl in 1919. The relevant portion of this theory is printed in English in the book entitled "Classics in the Theory of Public Finance" edited by R.A. Musgrave and Allan T. Peacock.

Lindahl regards the determination of public expenditure in connection with the distribution of the corresponding tax burden among the groups within the community. The distribution ratio for this burden will then play a role similar to that of prices in the adjustment between supply and demand in any ordinary market. We now consider this theory in greater detail.

He explains that the revenue expenditure process, as a phenomenon of economic value and price, is arrived at in a threefold decision. (i) Before determining the relative distribution of tax shares between various taxpayers, a choice must be made between the satisfaction of alternative wants by private households. Suppose a given sum is to be raised from the taxpayers *A* and *B* jointly. Now, if *B* pays a larger share of the total tax, *A*'s curtailment of his own private outlays will be smaller (that is, *A* pays less tax) and *vice versa*. (ii) A second choice is now required. It is between the satisfaction of alternative wants in the public sector. If more is spent on defence, less can be spent on education. (iii) In order to determine the total revenue to be collected and spent, a third choice is to be made between the satisfaction of public wants and private wants. If public expenditures are lower, taxes will be required in smaller quantity and there will be less curtailment of private spending. "This third decision cannot be rendered without a knowledge of the relative distribution of tax shares and the expenditure allocation corresponding to varying revenue expenditure totals. The three decisions, therefore, are mutually interdependent and must be rendered jointly".

The fundamental tenet of Lindahl's theory is that private economy process is followed in the public economy too. Hence, the allocation of the total cost of production of two joint products *X* and *Y* is done according to the respective supply prices of the two products based on the demand prevailing for the two products respectively and not according to cost imputation. Suppose *A* is the purchaser of *X*, while *B* is the buyer of *Y*. If *A* is willing to share only a small portion of the total cost of producing both *X* and *Y*,

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then *B* will be required to contribute a correspondingly larger share. In the opposite case, when *B* is willing to contribute a smaller portion. A will be called upon to contribute a larger share. *A*'s dependence upon *B* is due to the fact that benefits derived from the supply of public services are not divisible into individual benefits; they are received jointly by all members of the community. This is presented in Fig. 2.1.4.

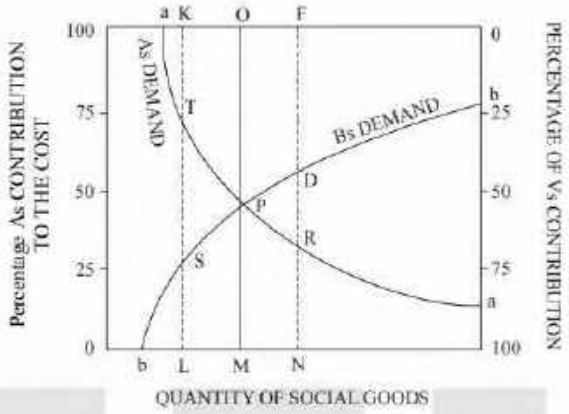

Fig. 2.1.4: Lindahl's Model

In the above diagram, Lindahl assumed two taxpayers, *A* and *B*. Percentages of total cost contributed by *A* are measured along the vertical line, while the quantities of social goods which they purchase (in equal quantities) are measured on the horizontal axis. Curve aa shows the varying percentages of total costs incurred in providing these goods which *A* is willing to contribute. Similarly, curve *bb* indicates the percentages of total costs which B will be willing to share. The figure shows that the maximum amount of the special good that can be produced is *OM*. For this quantity, *A* is willing to contribute *PM* percentage of the total cost of production. *B* is willing to share the remaining portion of the total cost, that is, *PN* percentage. For any other amount, the total cost is either overcontributed or undercontributed. If, for instance, the good is produced in *OK* quantity, *A* is willing to contribute *KQ* percentage of the total cost, while *B* shows his willingness to pay *LR* percentages. Their joint contribution comes to *KQ* + *LR* which is more than the total cost *LK*. In the situation, when *OS* quantity is produced, the entire cost of production will not be contributed by *A* and *B* together. A is willing to pay only *DS* percentages while *B* is not willing to contribute more than *TC* percentages. Thus, *CD* portion of the total cost remains uncovered.

In Fig. 2.1.4, there are only two parties (*A* and *B*). This situation is more like isolated barter or bilateral monopoly than a competitive market with many suppliers and many demanders. Lindahl had assumed that the two taxpayers (that is, the two parties) possessed equal bargaining power and ability. This assumption is questionable because in a situation of bilateral monopoly or isolated barter, the bargaining strength of the two sides is bound to differ and then a solution like point *P* in figure may not be arrived at.

On the assumption of equal bargaining power, Lindahl's solution is a Pareto optimal solution. But from this it does not follow that this solution will produce maximum welfare. This could obtain only by pure coincidence. In fact, at that time, Lindahl and other writers only maintained that such a solution would be a good solution provided the pre-tax distribution of income is acceptable or equitable.

Lindahl's voluntary exchange theory was thus found to be unacceptable because of its unrealistic assumptions.

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2.1.9 BOWEN'S MODEL OF PUBLIC EXPENDITURE

Since social goods, by definition, are those goods and services which are consumed equally by all, the cost of supplying them have to be contribute by all beneficiaries. However, every user cannot be asked to contributed equal amount in meeting the cost of social goods because different individuals will derive different amounts of satisfaction. Since social goods benefit everyone, the amounts of benefit derived by different individuals are like joint products. Hence, it is the joint contribution of all individuals that has to meet the cost of supplying social good.

Suppose, a public park is provided in a locality of 100 individuals. The benefit of public park is consumed equally by every one. The cost of supplying the benefit must be raised from the aggregate contribution of 100 individual. It must, however, be noted that each individual will pay an amount equal to the marginal valuation he attaches to the social goods, i.e., the public park services. This follows from rules of economic efficiency. Since the capacity to enjoy benefit of the public park, as in case of anything else, is different for different persons, they will attach different marginal valuation to the benefit and will contribute different amounts for the consumption of the same public good. How much amount of social goods is to be supplied by the public authority will be determined at that level where marginal cost of supplying the social goods becomes equal to the sum of marginal utilities received by the beneficiaries. Assuming that there are only two individuals in society, viz., A and B, and only one type of public goods, called X, the following condition will hold for the determination of public expenditure or, what it means the same thing, the amount of social goods to be supplied by the government.

$MU_A + MU_B = MC_X$

Or $PX_A + PX_B = MC_X$

Hence, $TC_X = QPX_A + QPX_B$ where MU stands for marginal utility derived from social goods, MC stands for marginal cost of supplying social goods, A and B are consumers, X stands for the social good supplied, P stands for price to be paid by the consumer, Q indicates quantity of social goods and TC stands for total cost of supplying the quantity.

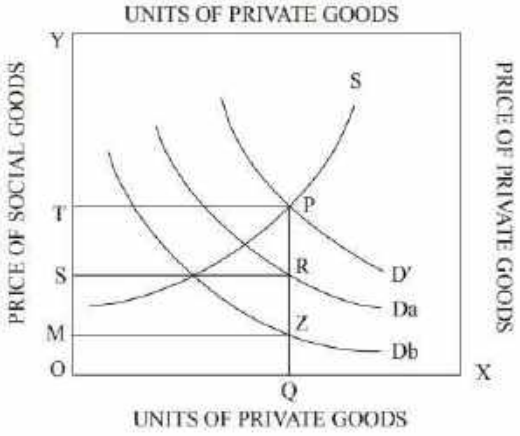

Fig. 2.1.5: Bowen's Model

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Bowen's model of determining public expenditure may be explained by the above figure where units of social goods are measured along horizontal axis and the combined unit price including the contributions of both *A* and *B* is measured in the vertical axis.

The demand schedules for social goods of *A* and *B* are shown by the lines *aa* and *bb* respectively. The line *tt* shows the aggregate demand schedule of both *A* and *B*. Let *SS* be the supply schedule of social goods which are assumed to be produced under conditions of increasing cost. Since the same amount of social good will be consumed by both *A* and *B*, the aggregate demand schedule, *tt* is made up of vertical addition of *aa* and *bb*.

The equilibrium output will be determined at *OQ* because it is at this level of production that the aggregate demand schedule and aggregate supply schedule intersect at point *P*, where the equilibrium price will be *PQ*. This is the combined unit price which will be contributed by both *A* and *B*. Of the unit price *PQ*, '*A*' contributes *QR* and '*B*' contributes *QN*, their respective demand prices. If the output is less than this, say, *OC*, the demand price or the combined contribution will be much larger (*CG*) than the supply price (*CE*). Since the combined offer price exceeds the unit cost, this will lead to increase in supply of social goods. If, on the other hand, supply is more than *OQ* say, *OD*, the unit cost (*DK*) exceeds the combined offer price(*DL*). This will lead to reduction in supply of social goods. In this way, equilibrium output is established at *OQ*.

At *OQ* level of output, the marginal cost of supplying social goods is *PQ* which is equal to the sum of *QN* and *QR*, the marginal utility to '*B*' and '*A*' respectively. The total cost of supplying *OQ* amount of social good equals *OQPU* which is covered by *A*'s contribution *OQRV* plus *B*'s contribution *OQNW* since *OQRV* + *OQNW* = *OQPU*.

Samuelson's Benefit Theory of Public Expenditure

The most recent benefit theory of Public Expenditure comes from Samuelson as a critique of the voluntary exchange model of Erik Lindahl. The voluntary exchange principle has a partial equilibrium approach in which satisfaction of social wants is considered independently of private wants. Samuelson considers it an inadequate explanation and thinks that the problem must be restated in terms of general equilibrium. This is what he has done in his theory of public expenditure. In his general equilibrium approach to optimal allocation of public and private goods, Samuelson takes into account both the allocation and distribution aspects to build up a unified system.

Application of market principle to the pricing of social goods to determine optimum allocation of resources becomes the starting point of Samuelson's theory. In the case of a private good, marginal utility and marginal cost are equal for all consumers. Since utility schedules of individuals are different, such equality and, hence, efficient level of output will be attained with different consumers consuming different amount of output at the same price. It follows that the aggregate demand schedule will be the horizontal summation of individual demand schedules. However, in the case of public goods which are, by definition, consumed equally by all, different individuals will pay different prices for the same quantity of output. Here, the sum of marginal utilities to consumers will be equal to the marginal cost. It follows that the individual demand schedules will be vertically added in this case.

Now, coming to general equilibrium analysis which brings both social goods and private goods into account, let us retain our earlier assumption of the society consisting of two individuals, '*A*' and '*B*' and producing one kind of each of social and private

goods. The consumption possibility schedules of '*A*' and '*B*' as between social goods and private goods are shown in the following diagram.

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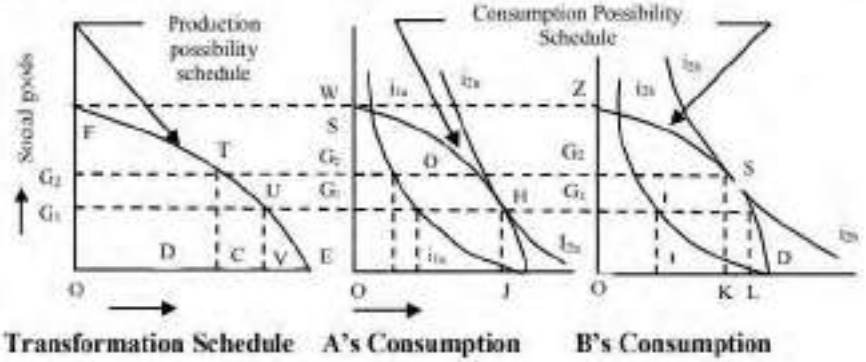

Fig. 2.1.6: Optimum Allocation of Social and Private Goods

The society's production possibility curve as between private and social goods is shown. Thus, the curve PQ shows different combinations of private goods and public goods that the society can produce. Which particular combination among the possibilities will be chosen depends upon preferences of the consumers '*A*' and '*B*' and upon the distribution of income between them. As for distribution of income, Samuelson holds that it will be determined along with the allocation of resources between social and private goods and, hence, no separate treatment of the distribution problem is necessary.

The vertical axis measures social goods and horizontal axis measures private goods in all the three figures. If only private goods are produced, '*A*' will have *OM* amount and '*B*' will have *ON*. The sum total of *OM* and *ON* is *OQ* shown in Fig. 2.1.7. This is the total output of private goods with no public goods produced. Suppose the government now wants to provide for social goods produced. This will require some sacrifice of private goods. In planning to supply social goods, it is assumed that the government is guided by the welfare principle of Pareto Optimum, which means that a changed arrangement in the mix of private goods and public goods will be preferred to the existing arrangement if the change adds to the welfare of either consumes without harming the position of the other. If, for example, '*A*' consumes *OM* of private goods and enjoys the utility level of the indifference curve i_{1a} as shown in no provision for public goods should be undertaken which will put him in a worse position, i.e., on a lower indifference surface than i_{1a}.

It is important to note that though '*A*' will be indifferent to any point of his preference surface i_{1a} '*B*' will not be indifferent to *A*'s position since his position will be affected because both have to consume the same amount of social goods. It follows that '*B*' will prefer certain locations of '*A*' to others.

As shown in Fig. 2.17, consumption possibility is defined by *A*'s choice and the *vice versa*. Both will consume the same amount of social goods, while one's consumption of private goods must be equal to the total supply of private goods minus the other's consumption thereof. Thus, if '*A*' chooses the point *E* and consumes OG_1 public goods and OM_1 private goods, the total supply of private goods will be *OR*. Since '*A*' consumes *ON* of private goods, '*B*' must consume *OL* where $OL = OR - ON$. If, on the other hand, '*A*' chooses the point *F* on his indifference surface i_{1a} and consumes OG_2 of social goods and *ON'* of private goods, then total supply of social and private goods will respectively

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be OG_2 and O. This will lead to B's consumption of social and private goods at OG_2 and OK respectively where $OK = OM - ON$. Similarly, if 'A' chooses the point C and consumes OC of private goods, 'B' will consume OD; the total production of private goods will be OE with no amount of social goods produced. In the same way, if 'A' likes to be located at W, 'B' will be located at Z and there will be no supply of private goods. This is how we obtain the curve DSZ which defines B's consumption of social and private goods as 'A' moves up along, i_{1a}.

In the same way, we can locate the curve CHW to identify A's consumption possibility schedule defined by B's choice pattern along his indifference curve i_{1b}.

Now, of all combinations in the consumption possibility schedule DSZ, the consumer 'B' will prefer S most because it is at this point that DSZ is tangent to the highest possible indifference curve i_{2b}. Here, 'B' consumes OK of private goods and OG_2 of public goods. CE amount of potential private goods is surrendered by society in order to produce OG_2 (Fig. 2.1.6) of public goods. Since at this level of aggregate product, 'A' consumes only OM, the whole amount of surrender of the potential private goods comes from 'A'. Hence, 'B' need not surrender any thing to get the public goods. The overall situation is a Pareto improvement, because while 'A' is not worse-off since he remains on i_{1a}, 'B' has been better-off as he has moved from i_{1b} to the higher indifference curve, i_{2b} at point S.

Now, applying the same argument on 'A' whose consumption possibility schedule CHW is defined by B's movement along his indifference surface, i_{1b}. A will prefer most the point H on CHW curve where it is tangent to the highest possible indifference curve i_{2a}. At this point, 'A' consumes the combination of OJ private goods and OG_1 public goods. The aggregate supply of private goods to produce equals OV and the society surrenders VE amount of potential private goods to produce OG_1 amount of public goods. The whole amount of surrender of private goods comes from 'B' and 'A' need not surrender anything to get OG_1 amount of social goods. The position of 'B' is not worse off because he remains on the indifference curve, i_{1b} while 'A' has been better off because he has moved to i_{2a}, the higher indifference curve at point H. This is clearly a Pareto improvement position due to the change.

Thus, we obtain the greatest gain that 'A' can derive without harming 'B' and also the greatest gain that 'B' can derive without harming 'A'. Let us now measure the ordinal index of A's welfare along vertical axis and that of B's welfare along horizontal axis of the following. If no public goods are produced, as we have already seen, 'A' will be located at C on his indifference curve i_{1a} and 'B' will be located at D i_{1b}. Both are, therefore, at the lower limit of their respective welfare levels, as shown by point m in Fig. 2.1.7. Now without changing the welfare level of 'B', if the government provides for public goods that raises the level of A's welfare to i_{2a}, then 'A' will be placed at H (Fig. 2.1.7) and B at 1 (Fig. 2.17). This improved position of 'A' is indicated by the point X in Fig. 2.1.7. On the other hand, if the government leaves the position of 'A' unchanged and makes an arrangement for public goods to raise B to indifference level i_{2b}, then 'B' will be placed at S and 'A' at Q (Fig. 2.1.7 (a) and (b)).

The improved position of B is indicated by the point Y in Fig. 2.1.8. Thus, the area myx shows the infinite number of point at which 'A' of 'B' or both of them are better off than at m where no public goods are supplied. The outer border line of the area, xy is the utility frontier of which every point will give optimum solution in the Pareto sense. A movement from y to x improves A's position and worsens B's position and the reverse

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will be true for a movement from x to y. Which one point of these optima should be chosen by the society now remains a crucial question. The choice requires a social welfare function which can evaluate social gain or loss resulting from improvement in A's position at the cost of B's or *vice versa*.

Public goods are provided collectively. They cannot be provided by private enterprise. Private goods are provided on the basis of preferences revealed truly by individuals in the market. Individual preferences are not known in the case of public goods. So, how can the market principle be applied to the provision of public goods? Answer to it is that in "a democratic society..... the ultimate justification of the governmental provision of public goods or other activities is the desire of the members of society for such goods and activities, rather than an authoritarian determination that such action is desirable." Though government may largely influence individual preferences for public goods, it may yet be assumed that such preferences are the ultimate source of justification for governmental activities. On this assumption, let us analyse how the market principle can be applied to the determination of the optimal provision and financing of public goods. In order to do this, we take the familiar supply and demand diagram. Its application to social goods is not realistic but it may serve as a good starting point.

Fig. 2.1.7 shows the demand for a private good and a social good for two individuals A and B under a given distribution of income and given prices for other goods. Left side of the figure shows DA and D as demand curves for a private good X for A and B.D_{A+B} is the market demand for X which is obtained by horizontal addition of DA and DB. S is the supply curve of X. Price of X is OC for both A and B which is determined by the intersection of market demand D_{A+B} with market supply S at the point E. Quantity purchased by A and B together is OH. A will purchase OF while B buys OG so that $OF + OG = OH$.

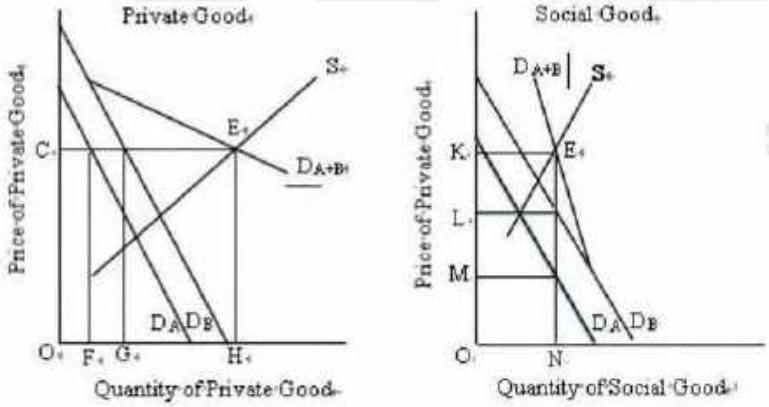

Fig. 2.1.7: Demand for Private and Social Goods

Right side of Figure 2.1.7 shows that D_A and D_B are demand schedules for A and B and D_{A+B} which is obtained by vertical addition of D_A and D_B is the market demand for the social good, G. Since G is consumed in the same quantity by all taxpayer – consumers, market demand for social good requires vertical addition of individual demand curves. S is the supply schedule of G. Equilibrium between demand for and supply of G is given at E. Consumption of G by both and B is ON and the combined price is OK, of which OM is paid by A and OL by B so that $OK = OM + OL$.

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It should be clear from the above that the production of social good and its pricing are determined by the same principle which applies to the case of a private good. However, one important difference should be noted. Samuelson says that efficiency requirement in the case of private good is one in which marginal benefit from such good for each individual equals its marginal cost. In the case of a social good, this rule requires that marginal benefit for each individual differs and the sum of such marginal benefit equals marginal cost. Consequently, application of the same pricing principle to both social and private goods gives us different results. Each individual purchases the same amount of a social good but pays different prices for it depending on his valuation of the good. In the case of private good, each consumer pays the same price but purchases different amounts of this commodity in terms of marginal benefit derived by *A* and *B* in consuming *OF* and *OG* respectively is equal to the marginal cost *HE* (case of private good). Each individual consumes *ON* quantity of the social good but *A* pays *OM* price for it while *B* pays a price equal to *OL*. Yet in both cases, the same pricing rule is applied. Each consumer pays a single price for successive units of the good purchased while the price equals the marginal benefit that the purchaser derives. This was demonstrated by Paul Samuelson in his articles of 1954 and 1955.

This analysis presents the efficient provision of private and social goods and it was done by comparing a market for private good with a pseudo-market for social goods. Each market was viewed in a separate partial equilibrium setting assuming that the demand for public goods would be revealed. We now have to allow for interdependence between the production and consumption of private and social goods and consider how the problem can be resolved in general equilibrium terms. For this, we begin with a brief outline of what is meant by efficient resource use. This is followed by a parallel view of the problem as applied first to private, and then to social goods.

Critical Assessment. Like other approaches, Samuelson's benefit doctrine is also not free from limitations. As is clear from Fig. 2.1.8, "even if all preferences are revealed, there is no single best solution analogous to Pareto optimum in the satisfaction of purely private wants. Instead, we are confronted with large number of solutions, all of which are optimal in the Pareto sense."

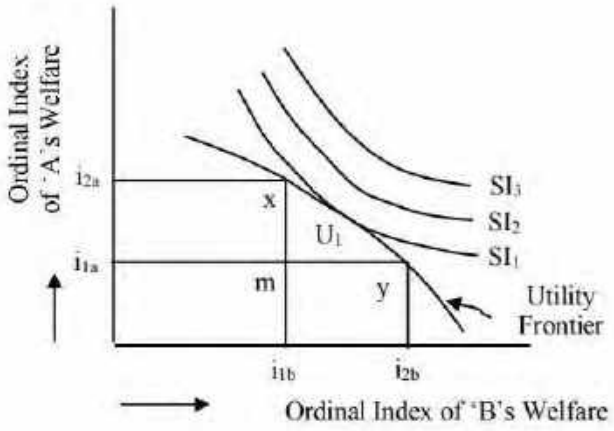

Fig. 2.1.8: Utility Frontier

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If we assume that the determination of a social welfare function assigning relative values to utility levels of '*A*' and '*B*' and ordering them is possible, they may be expressed by social indifference curves like SI_1, SI_2, SI_3, etc. shown in Fig. 2.1.8. The highest possible of these curves is SI_1, which is tangent to the utility frontier at U_1. Hence U_1 should be the point of choice since it is the optimum of all Pareto optimal. However, such possibility is far away from real world situation howsoever might the construction of social indifference curve be of theoretical interest.

Secondly, if the assumption of the given state of proper income distribution is relaxed, the theory will face further stumbling blocks. Now, since the choice among various points on utility frontier affects relative positions of individuals '*A*' and '*B*', it should involve distributional considerations. The question then arises whether we can determine the proper state of distribution independent of the effects on real incomes of the particular pattern by which social wants are satisfied. However, as Samuelson has formulated his theory, the entire state of distribution is sought to be determined along with allocation of resources between social and private wants, thus combining the problems of both allocation and distribution together.

Thirdly, restatement of the problem in general equilibrium terms destroys the simple solution of the voluntary payment model, even if we grant the assumption that preferences are revealed and known. Again, the more basic objection is that since the same amount public good is consumed by all, the exclusion principle does not apply and that the consumers would not reveal their preferences.

Fourthly, the integration of the aspects of social goods with the theory of economic welfare in Samuelson's doctrine is exposed to an added problem of practical implementation. The whole theory is based on the unrealistic assumption that the planner has the necessary knowledge of individual preferences. As against the solution of private goods allocation with the help of market principle of exclusion, a political process of voting becomes the only alternative to the problem of non-revelation of preference pattern for social goods by individuals. It is through political process of voting that individual preferences are to be translated into budgetary decision. However, there may be different types of voting through different methods. Whatever is the type of voting applied, however, the result must be not only approximate but also distorted. There may be overexpansion or underexpansion of the budget size.

Since, in most cases of public goods, marginal social benefits exceed marginal private benefits and, hence the social welfare economist, Pigou, thinks that the voting process will lead to underexpansion of budgetary provision or the quantum of social goods. Again, as J.K. Galbraith points out, consumers are constantly influenced by advertisements of private goods and, thus the choice pattern of voters might be biased against social goods. The result may be underexpansion of public goods. This is also reinforced by the fact that voters generally consider tax payment more as a burden than as a sacred duty.

Lastly, though benefit principle is based on direct link between tax payment and benefit to be accrued to taxpayer, in reality, only a section of the taxpayers are benefited from budgetary supply of public goods. Because of the absence of such a direct link, the legislators generally vote in favour of larger public outlays. On this ground, Buchanan argues that majority voting causes oversupply of public goods.

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Whatever is the criticism, one has to agree that the advocacy of Samuelson is one of the finest theoretical treatment insofar as the nature of public expenditure determination is concerned.

Partial equilibrium setting of the new welfare economics was developed by Joseph and supported by Stigler and Boulding. In the indifference curve approach, shown in Fig. 2.1.8, the consumer's total income in terms of '*X*' commodity equals *OC* and in terms of '*Y*' commodity equals *OD*. The initial equilibrium is at *E* on indifference curve I_3. An income tax equal to *BC* of *X* or *KD* of *Y* is imposed. The consumption possibility curve or the budget line will be shifted inward to *KB* as a result of the tax indifference curve I_2, because it is at this point that the slope of I_2 (i.e., *MRS*) is equal to the price ratio given by the budget line *KB*. The same situation will be obtained under a general consumption tax on both *X* and *Y* commodities.

Now, if the government obtains the same amount of revenue by an equal yield partial consumption tax on '*X*' commodity only, the price line or budget line will be shifted to *DA*, because the income of the taxpayer in terms of taxed commodity '*X*' will be *OA*, while the same will remain *OD* in terms of "*Y*" commodity. Now, the government revenue will be equal to *MN* which is the same as in case of income tax is on higher indifference curve. Thus, the welfare level of consumer is worsened by the indirect tax as compared to direct tax. Since indirect tax changes the price ratio as shown by budget line *DA*, it results in substitution of non taxed commodity for taxed commodity. The process reduces the welfare level of taxpayer and brings down his consumption on lower indifference curve. This is an excess burden of the indirect tax.

Excess Burden under General Equilibrium

Excess burden under general equilibrium is shown in Fig. 2.1.8. Let us first assume that perfect competition prevails in the market for commodities, the supply of work effort and saving are fixed and the consumers have equal incomes and tastes so that indifference map is same for everyone. Efficient allocation of resources under general equilibrium requires that the following condition is satisfied.

$$MRT_{xy} = MRS_{xy} = P_x/P_y$$

where, *MRT* means marginal rate of transformation in production, *MRS* means marginal rate of substitution in consumption, the subscripts *x* and *y* stand respectively for '*X*' and '*Y*' commodities and P_x and P_y stand for price '*X*' and price of '*Y*'.

In competitive equilibrium, this condition is met. On the above noted assumptions, a head tax or poll tax, general income tax and general consumption tax of equal yields are all lump-sum taxes and will be equivalent in that they will impose equal burdens, while a selective excise tax will be inferior because it imposes excess burden.

In Figure 2.1.8, products '*X*' and '*Y*' are measured along horizontal and vertical axis respectively. Preference pattern of the consumers is indicated by a set of indifference curves I_1, I_2 etc. and the initial equilibrium is at *E* with the consumption composition of *OM* of "*X*" and *OK* of '*Y*'. The marginal rate of substitution in consumption (the slope of I_2) and the marginal rate of transformation in production (the slope of transformation curve *CN*) are both equal to the price ratio given by *BA* as it is target to both the indifference and the transformation curves at point *E*.

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Now, let the budget be introduced and an income tax imposed. This will move the production possibility curve *CN* closer to the point of origin. To simplify matters, let us assume that this shift has already been provided for so that *E* is the post-income tax point of equilibrium. Now, let the income tax be replaced by an the transformation curve CN remains the same. Again, the new equilibrium must lie on this curve and it must lie on an indifference curve.

However, in the post-tax equilibrium situation, the price paid by consumer will be higher than the price received by producer due to the tax on "*X*". Here, the slope of production possibility curve equals the ratio of prices net of tax, P_nx and P_ny, as received by the producer, while the slope of indifference curve equals the ratio of market prices P_nx and P_ny as paid by consumer.

But, P_nx and $P_ny = A_ny$

Such a situation is shown by *FR* slope of indifference curve I_1 and *FP* slope of transformation curve *CN* at the new equilibrium point *F* which must lie to the left of *E*. While *FP* shows the ratio of net prices (P_nx/P_ny) as received by the consumer. The new equilibrium at *F* must lie on a lower indifference curve as shown by I_1. This has resulted in consumption substitution of *DK* amount of the non-taxed product *Y* for *LM* amount of the taxed product *X*. An excess burden thus has been imposed by the use of the excise tax on "*X*".

It is, therefore, argued that direct taxes are neutral because they keep price ratio unchanged and consumers preference pattern undistorted. An indirect tax, on the other hand, is non-neutral raising the price of taxed commodity, distorting the preference pattern and inducing the consumer to substitute non-taxed product for taxed product. Hence, a direct tax does not impose excess burden but an indirect tax does.

Critical Assessment of Excess Burden Doctrine

If, we, however, relax the assumption of fixed supply of work effort and take into account the fact that when income is earned, leisure is sacrificed, i.e., leisure, like any other commodity, can be transformed into income, then the theory that income tax does not impose any excess burden breaks down. I.M.D. Little has discussed this issue elaborately. After an income tax is imposed, the "price" of income is increased, i.e., one has to supply more work effort in order to earn equal amount of net income. It means that leisure has now to be sacrificed in larger amount to maintain the pre-tax level of income. It is, as if, the price of leisure has fallen. Thus, imposition of income tax will induce substitution of low-priced leisure for high-priced income. This distorted preference pattern between income and leisure does indicate an excess burden on the income earner.

This can be illustrated again with the help of Fig. 2.1.8 where let us measure leisure on vertical axis and income in terms of commodity *X* on horizontal axis. *CN* curve showing the rate at which leisure can be transformed into income. The indifference map as between leisure and income is shown by curves I_1, I_2, etc. The pre-tax equilibrium will be at *E* and the post-income and leisure as already because of the distortion of price ratio between income and leisure as already explained. The taxpayer will be located on a lower indifference curve I_1 and hence, an excess burden is imposed on him as a result of the income tax. It means that the purely theoretical case against indirect taxation is an illusion" (I.M.D. Little). John F. Due is not different in his argument. According to him, the distortion caused by indirect taxes on work leisure ratio and on price ratio of taxed and non-taxed commodities and, hence, their output ratio, too, could be more than made

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good by the adverse effect of high income tax on supply of work effort. The net result may be worse in such a situation.

There has also been empirical investigation particularly by Corlett and Hague on this issue. In their findings, they have shown that commodity tax may also improve the supply of work effort and that replacement of a commodity tax by income tax has reduced excess burden through increase in the supply of work effort. This is because most people get accustomed to a particular standard of living and when income tax reduces their income, they try to earn more by larger work effort to maintain their standard of living. This will result in improvement of welfare level of the taxpayers and will locate them on a higher indifference curve.

Again, that the initial equilibrium will be at point E in the diagram and the product composition of consumption will be OM of 'X' and OK of 'Y' is based on the assumption of perfect competition. If we assume, instead, that the product 'X' was produced under conditions of imperfect market, say, monopoly, the pre-tax equilibrium would not be at E but at a point to the left of E. say, at F. This because the price of 'X' would be greater than marginal cost and, hence. MRS_{xy} must be steeper than MRT_{xy}. Under the circumstances, if a tax is imposed on product 'Y' only, this would reduce the difference between the slopes of indifference and transformation curves and, hence, post-tax equilibrium point would be closer to E, locating, thereby, the consumer on a higher indifference curve. Thus, a partial excise duty in this case, instead of worsening the position of consumer, betters it. On the same line of argument, it can be shown that a general tax on both 'X' and 'Y' commodities would be better than a partial tax on either 'X' or on 'Y', because the former will not change the price ratio and induce substitution while the latter will do this. In the excess burden situation with tax on 'X' commodity as explained in Fig. 2.1.8, if a fresh tax is imposed on 'Y' commodity, the slope of indifference curve will be flatter and that of transformation curve steeper so that equilibrium point shifts to the right of F and gets closer to E and located on a higher indifference curve. This will better the position of consumer by reducing excess burden of tax.

Efficient Resource Use

In considering the interdependence between the production and consumption of private and social goods, we take distribution of income as given. We examine Pareto Optimum, that is, Pareto efficiency rule for private goods first. There are two consumers A and B and two private goods X and Y. Optimum state of consumption and production is attained when the following three conditions are fulfilled.

(i) With given technology, largest possible amount of Y should be produced with a given amount of X. It is known as production optimum, the best mix of X and Y.

(ii) The marginal rate of substitution *(MRS)* in consumption between products X and Y must be same for consumers A and B. It is known as exchange optimum.

(iii) The marginal rate of substitution of X and Y in consumption should be same as the marginal rate of transformation *(MRT)* of X and Y in production.

If these conditions are satisfied, Pareto optimum is attained and resource allocation will be termed as efficient. This situation is depicted in Fig. 2.1.9. In the figure, CZD is the production possibility curve which shows the best possible combinations of X (measured vertically) and Y (measured horizontally) that can be produced. Let us assume that point Z is chosen and OE of X and OF of Y are produced. Now, we have to see how

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this output is divided between *A*'s and *B*'s. For this, let us take the Box diagram encompared by *OEZF*. Within *OEZF*, Ia_1 and Ia_2 are A's indifference curves whereas *B*'s indifference curves are Ib_1, Ib_2 .... These curves show preferences of the two individuals for *X* and *Y*. *O* is the point of origin for *A*, while *Z* is that for *B*. *OZ* is the contract curve showing the most preferred points for both *A* and *B*. The problem now is to choose among the various points on *OZ*. Let us draw *LK* parallel to *NM*. At the point *J*, the marginal rate of substitution for consumers, as indicated by *LK* which give us the slope of the indifference curves Ia_3 and Ib_2, is equal to the marginal rate of transformation as given by the slope of *NM* and this satisfies the third condition.

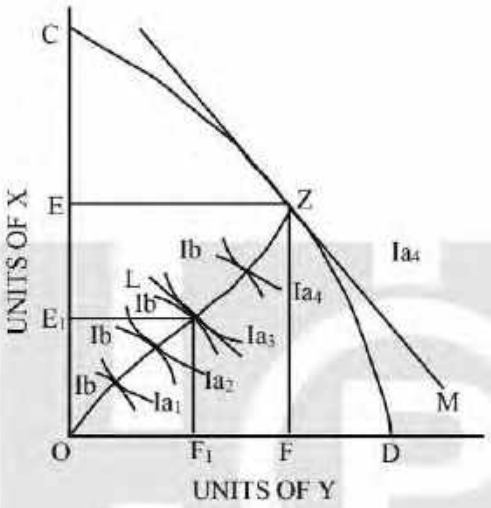

Fig. 2.1.9: Pareto Optimum

In terms of Fig. 2.1.9, the optimum allocation of output mix *Z* between two consumers *A* and *B* is decided. *OF* of *Y* is divided between A and B in ratio of OF_1 (for *A*) and FF_1 (for *B*) while *OE* of *X* in the ratio of (for *A*) and EE_1 (for *B*). Still one problem is unsolved. All points on the production possibility curve *CZD* are equally preferred points. Choosing *Z* implies, in terms of relative welfare, I_{a3} utility level for A and I_{b2} utility level for *B*. Whether this point (*Z*) will be chosen or cannot be answered in terms of Pareto optimum rules; it is a matter of judgment on distribution. Hence, our next step is to relax the assumption of given distribution and to derive "the optimum of all the Pareto optima" in the words of Samuelson.

Consideration of Distribution

Derivation of the optimum, that is, the best, takes us to the a scientific area of 'welfare economics' and must be provided with a set of norms. Economic science cannot deduce a social welfare function; what it can do is neutrally to interpret any arbitrarily specified welfare function. This involves a trade-off between the welfare levels of *A* and *B*. We now proceed in terms of *A*'s utility index or welfare is recorded along the vertical axis, while that of *B* along the horizontal axis. *PP'* is the utility possibility frontier. It shows the largest possible utility obtained by *B*, given the utility for *A*. Corresponding to the product-mix *Z* and optimum allocation *J* in Fig. 2.1.9, take *J* on *PP'*. It means that *OA* in Fig. 2.1.9 corresponds to utility index Ia_3 for *A* and *OB* measures *B*'s utility index Ib_2. All points on *PP'* indicate Pareto optimum and the choice for any point on this frontier involves a trade-off between gains for *A* and losses for *B*, or *vice versa*. A movement from *P* to *P'* indicates decline in *A*'s welfare and gain in *B*'s welfare. "The choice is one

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of distribution and must be made on the basis of a social welfare function, expressing an ordering by which society assigns relative values to levels of welfare experienced by *A* and *B*. Assuming these assignments to be known, they may be expressed by the social indifference curves S_1, S_2, etc., where each curve shows mixes of welfare derived by *A* and *B* that, from society's point of view, is equally "good". At point *U*, the highest possible social indifference curve, Si_2 is tangent to the utility frontier. So, *U* is the bliss point "the best of all possible solutions" in the words of Musgrave, the optimum of all Pareto optima. Samuelson interprets this tangency condition in the following terms:

Index of B's Utility

1. The social welfare significance of a unit of any private good allocated to private individuals must at the margin be the same for each and every person.
2. The Pareto optimal condition, which makes relative marginal social cost equal to the sum of all persons' marginal rates of substitution, is already assured by virtue of the fact that bliss lies on the utility frontier.

These efficient solutions can be obtained in a competitive market system. Since producers are guided by the desire to maximise profits, the least cost method of production is adopted and Condition 1, given above, is met. Condition 2 is also met because consumers, in order to maximise satisfaction, equate marginal rates of substitution of products with their price ratios. Maximum profit is obtained when marginal revenue of the product equals its marginal cost. Under competition, price equals marginal cost and marginal revenue. Condition 3 is thus met.

Economy as a Whole

We now apply this analysis to cover both social and private goods. Let us take, for the sake of simplification, one social good, *G*, and one private good, *X*. We continue to assume that there are only two individuals *A* and B. Let us recall that both individuals consume the same quantity of public good, *G*. Thus, $Ga = Gb = G$ where *Ga* and *Gb* represent the amount of *G* consumed by *A* and *B* respectively. We also know that consumption of private good, *X*, by the two individuals differs so that $Xa + Xb = X$ where *Xa* and *Xb* represent the amount of *X* consumed by *A* and *B* respectively. Let us now see the product mix of *X* and *G* and their allocation between *A* and *B* in terms.

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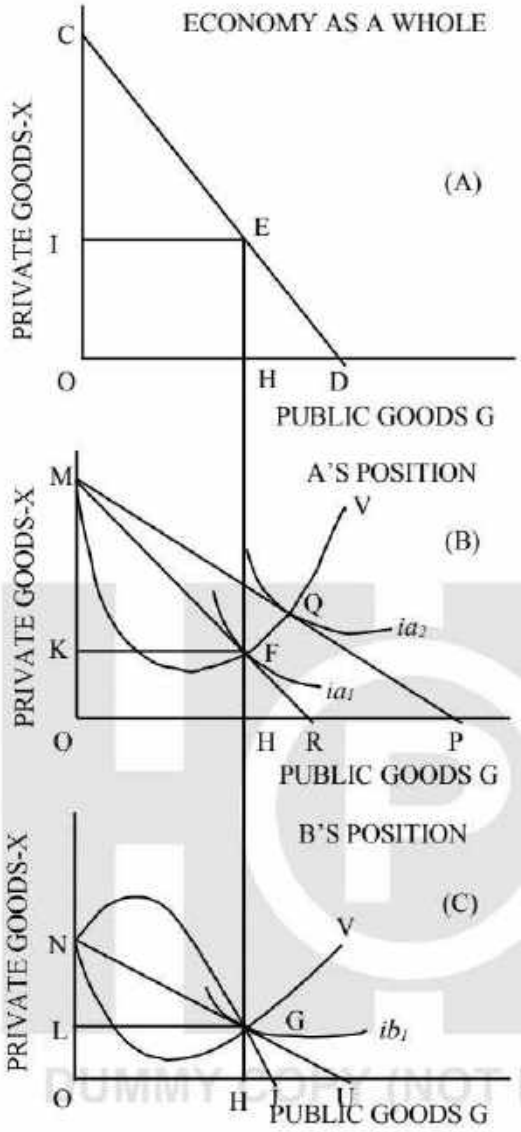

Fig. 2.1.10: Public and Private Goods with Given Distribution

In Fig. 2.10, we have a panel of three diagrams *A*, *B* and *C*. In Fig. 2.1.10(A), *CD* is the production possibility line showing the various combinations of *X* and *G* that can be produced and are available to the economy as a whole. The position of consumer *A* is depicted in Fig. 2.10(B) and that of consumer *B* in Fig. 2.1.10(C). The total income of the community is OC (in terms of private good X). This income is divided between *A* and *B* in the ratio of *OM/OC* for *A* and *ON/OC* for *B* such that $OC = OM + ON$. The broken line *MV* in Fig. 2.1.10(B) record the optimal allocation of *A* is *A*'s income between *X* and *G* at different price ratios. *MV* is the price consumption curve of the indifference curve analysis of consumer demand and is obtained by joining tangency points like *F*, *q*, etc. The curve NV in Fig. 2.1.10(C) is a similar price-consumption curve for *B*.

The broken curve *NJ* shows the positions available to *B* corresponding to various positions of *A* along the curve *MV*. Since *NV* and *NJ* curves intersect at *G*, it means that *B* must be at this point. Corresponding to this position of *B*, we must find *A* at *F* since both

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consumers consume the same amount, that is, OH of G. The private good output OI is divided between A and B in such a way that OK goes to A and OL to B where $OI = OK + OL$.

We can now notice the crucial difference between the conditions necessary for efficiency in a world of private goods only and that of private and social goods. As given earlier, efficiency rules in a world of private goods only imply that $MRS = MRT$ and MRS equal for all individuals for any pair of two goods. But in a world consisting of private and public good, $MRS = MRT$, while MRS is different for each individual, since i_{al} and i_{bl} do not have the same slope at F and G in Fig. 2.1.10(B) and Fig. 2.1.10(C). As was shown above (Fig. 2.1.10), the efficiency rule in the case of private goods implies that marginal benefit of such a good for each individual is equal to its marginal cost, while in the case of social good, marginal benefits for each individual differ and the sum of such marginal benefits equals its marginal cost.

Johansen Model

Samuelson's classical formulation of the pure theory of public expenditure solves two problems under the assumptions of given preferences and distribution of income. They are: (i) the division of total output between the public good and the private good and (ii) division of the total supply of private goods between two consumers A and B. All his solutions are Pareto optimal because any departure from them involves a loss to either A or B. The optimum of all such optima is then decided on the basis of a social utility function as part of the general problem of welfare maximisation.

"This formulation", observes Musgrave, "meets the test of theoretical rigour and sweeping elegance and ranks among the great contribution to the theory of welfare economics as applied to public finance." Yet, Samuelson's theory does not satisfy those who intend to apply fiscal theory to partial problems and specific issues. From the implementation point of view, it is far from satisfactory. Johansen has tried to remove some of these difficulties as was done earlier, to some extent, by Lindahl as discussed above and Musgrave in his Theory of Public Finance (1959). Johansen's analysis, as presented in Fig. 2.1.11, assumes that the initial distribution of income is a desirable one.

Johansen proceeds by assuming that h is a fraction of the total cost of producing the public good G which is borne by the taxpayer A. Hence, the share borne by B is $1 - h$. In Fig. 2.1.11, he considers the case of A and examines his preferences with regard to a private good X and a public good G. In the figure, two budget liens are drawn corresponding to two different values of h, steeper the budget line higher is the value of h. Given the distribution ratio h, the point of tangency between the budget line and the indifference curve showing combinations of private good X and public good G represents best preference for A. The two points P and Q in the figure are points of this, kind and a curve AA' obtained by joining all such points is a curve showing the most preferred values for various cost shares. This curve is redrawn in Fig. 2.1.11 as $AA'A$. For B, a similar curve is labelled as BB'. Their intersection takes place at point P which corresponds to the P point of the Lindahl diagram.

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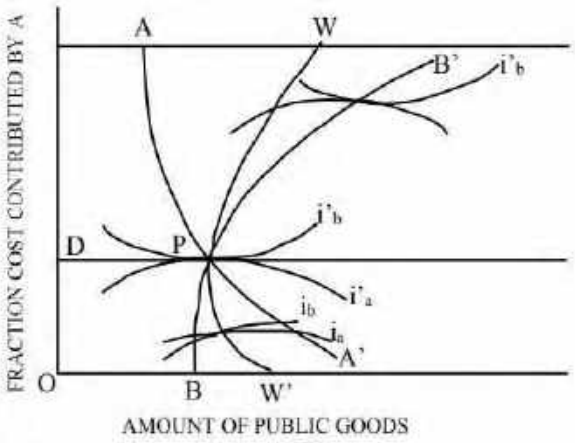

Fig. 2.1.11

In Fig. 2.1.11, the dashed indifference curves i_a show combinations of public good output (G) and cost shares contributed by A (i.e., h) among which taxpayer A is indifferent. Similarly, i_b indifference curves drawn for the taxpayer B. The line WW' is the contract curve showing the locus of the points at which the two sets of indifference curves are tangent. Only at point P we find the most preferred position because it lies on AA', BB', i_a and also i_b. For Johansen, this P point is only one of the many Pareto optimal solutions. It is so because P is only one of the several points on the contract curve WW'.

Musgrave is of the opinion that Johansen's formulation may be considered as a special case of Samuelson's broader framework. But this formulation is more attractive since it directly deals with the question of tax shares. "At the same time, it leaves open the question of why the initial state of resource endowment was considered proper.....We are still left with an inconsistency which is successfully, removed in Samuelson's general formulation."

2.1.10 PUBLIC EXPENDITURE AND NATIONAL INCOME

Since Keynesian Revolution in 1936, stabilisation has become an important object of public expenditure policy in the course of modern public finance.

Economic stabilisation, in broad sense, connotes stability of income at full employment and price level stability. In a dynamic economy, with a growing amount of capital stock, labour force and technological advancement, maintenance of income stabilisation at full employment and price level stability obviously calls for the maintenance of an equilibrium rate of growth.

Income Stabilisation

According to Keynes, the level of employment and income in an economy is determined by the level of effective demand which is essentially composed of consumption and investment expenditure. But this equilibrium level of income need not necessarily be at full employment level. At higher level of income, marginal propensity to consume diminishes so that the flow of consumption expenditure tends to contract causing aggregate demand function to shift downward. A demand deficiency is, thus, the result. It causes further unemployment and a low level of income.

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Keynes argued that market mechanism by itself fails to bring automatic adjustment in a capitalist economy. It is, therefore, necessary for the government to intervene. The government expenditure influences the flow of total expenditure and the consequent generation of income flow in the economy. The public expenditure can be appropriately devised to manipulate the aggregate expenditure at the optimum level.

How can an optimum level of government expenditure be determined so as to attain full employment level of income in the economy? Theoretically, it can shown by a simple geometric model of income determination. Assuming a given level of investment expenditure (*ab*) in the private sector, with a given consumption function, an equilibrium income level is determined by the aggregate expenditure ($C + I$) as shown in Figure 2.1.12.

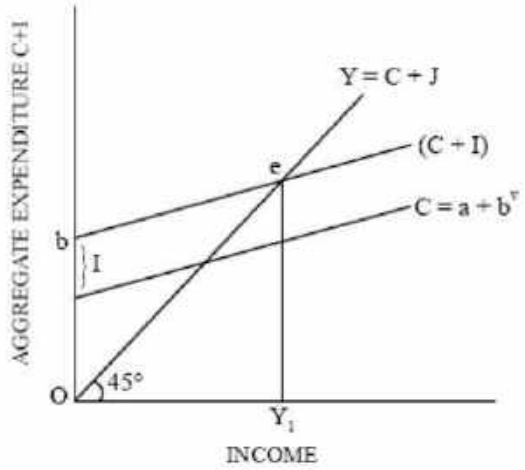

Fig. 2.1.12: Keynesian Model

In Figure 2.1.12, *e* is the equilibrium point determining y, level of income in relation to the given aggregate expenditure: $C + I$.

In the above model, now we introduce the phenomenon of labour productivity to show the functional relationship between employment and real output/income.

The extended model is presented in Figure 2.1.13.

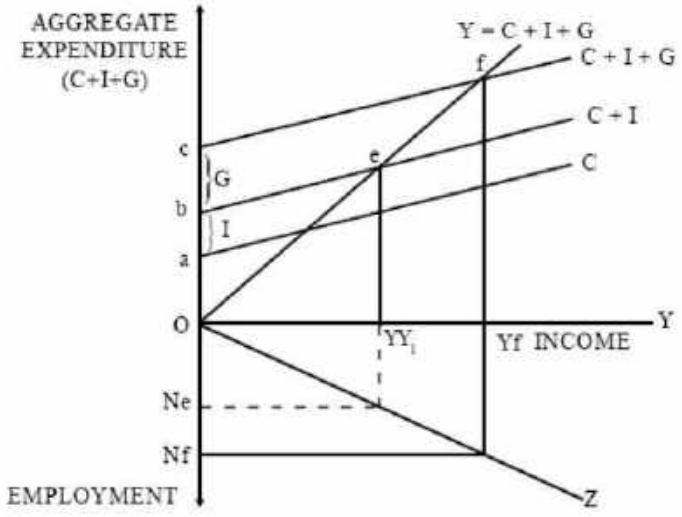

Fig. 2.1.13: Extended Keynesian Model

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In Figure 2.1.13, the line Z depicts the relationship between employment (N) and income (Y) as determined by the level of labour productivity. Higher labour productivity will make Z line closer to the horizontal axis and labour productivity would make it away from the horizontal axis. In our model with given line Z, that is given the productivity of labour, for producing OY_1 level of income, it is sufficient to employ ON_1 amount of labour. Suppose the economy has ON_f amount of labour supply. That means there is N_1N_f amount of unemployment. If the economy achieves full employment level, the corresponding income level would be OY_f. But the present state of effective demand at a point gives aggregate expenditure and total demand which is insufficient to provide full employment in the economy. Point e is an underemployment equilibrium. There is deficiency of demand to give full employment equilibrium point at f and corresponding income level OY_f. The deficiency in aggregate expenditure is thus to the extent of difference between eYf and eY_f. The deficiency of expenditure and aggregate demand to the tune of $eY_1 - eYf$ is to be covered up though government expenditure (G). When public expenditure (G) is amounting to be, the total expenditure ($C + I + G$) amount to OC generates income up to OY_f which ensures full employment equilibrium. Generation of income Y_1Y_f is greater than the increased public expenditure (G) up to be. This is due to the working of the multiplier effect which is based on the marginal propensity to consume as measured by the slope of the consumption function (C).

Thus, in our illustration, optimum public expenditure is determined at be level. Keynes, however, advocated for a compensatory public spending in this regard. That is to say, the public expenditure should compensate for the lacuna of private investment expenditure. It should be such that would stimulate the private sector investment. It should supplement rather than supplant the private sector. He visualised a concept of mixed economy in the form or controlled capitalism. He suggested that once private sector attains normalcy, public sector investment should be stopped.

The above analysis is suitable for a developed economy. But in less developed countries, where there is absence of excess capacity and the problem of unemployment is not due to lack of effective demand but caused by structural deficiencies and market imperfections, the Keynesian model as stated above has little relevance. To break the vicious circle of poverty in poor countries, the government has to direct public expenditure for capital formation and construction of social overhead capital and investment in those economic sectors where private capital is shy. It needs a balanced growth approach by synchronised application of capital investment simultaneously over a wide range of industries to break the vicious circle of poverty. Again, the multiplier effect of public expenditures on income generation may not operate in real terms, as visualised by Keynes. This is because of the typical nature of a less developed country — lack of recourses and absence of any appreciable excess capacity for automatic expansion.

Price Stabilisation

Along with income stabilisation, price stabilisation is also equally important objective of the policy of expenditure in modern times.

Price stability goal of public expenditure policy, however, does not imply rigid price stability. But, it implies anti-inflationary policies during conditions of inflation and deflation. Public expenditure policies aim at stabilising prices at desirable level. Inflation beyond a limit is dangerous. It distorts rational calculations and creates adverse impact on growth and expansion programmes. It creates social injustice by widening the gap of

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inequality of income distribution. It aggravates the deficits in the balance of payments and ruins the external value of the currency. To avoid these effects, it is essential to check inflation.

As a rule, whenever there is an inflationary price rise, public expenditure must be cut down. Government expenditure on public works programme, grants and other categories of non-development expenditure must be educed to narrow down the inflationary gap and the inflationary pressure.

During inflation, a reduction in public expenditure on consumption and/or investment would imply a decrease in the flow of aggregate expenditure and a backward working of the multiplier process causing a decease in the level of national income at a non-inflationary level, which helps in stabilisation of the price level.

During deflation, revival of price rise is essential. Deflation is inexpedient. It leads to decrease in income, employment and output along with the decreasing prices. Public expenditure can check deflation. For this, the government has to spend more, even by following a deficit budget policy. Public expenditure of all kinds should be enhanced during deflation. Another way of increasing aggregate expenditure in the economy as a means of combating deflation is the repayment of public loans from the public revenue and sinking funds of the government.

In short, public expenditure is an important instrument of anti-cyclical fiscal policy.

2.1.11 ISSUES IN PUBLIC EXPENDITURE POLICY IN INDIA

Since the inception of planning in India, the structure and growth of public expenditure has assumed a unique significance in the economic development of our country. Public expenditure in India as elsewhere, is issued as a means of achieving policy objectives and planned allocation of resources in the functioning of the public sector to fulfil its target. Public expenditure is one instrument of public policy in achieving the government's macroeconomic goals, such as increase in national income, rapid economic growth, increase in employment, eradication of poverty, reduction in inequality in the distribution of income, improvement in the common standard of living and economic welfare of the people in general.

Growth of Public Expenditure

Total public expenditure in the India economy include: (i) the aggregate of revenue account expenditures in the Central and State governments' budgets, and (ii) the aggregate of capital outlay of the Central and State governments.

Total public expenditure in India has increased rapidly and massively during the planning era. It increased from a low level of ₹ 967 crores in 1950-51 to as high as ₹ 31,801 crores in 1979-80. It stood at ₹ 1,13,642 crores in 1987-88. The ratio of public expenditure to national income increased substantially from 10.2 per cent in 1950-51 to 44.1 per cent in 1987-88. Fig. 2.1.14 portrays the growth of Central Government expenditure on revenue and capital account.

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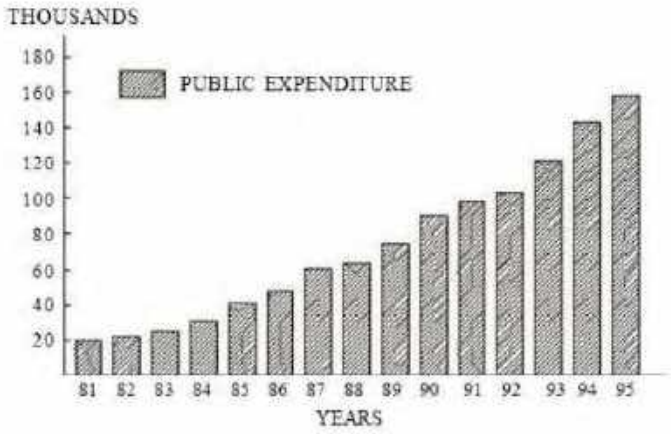

Fig. 2.1.14: Growth of Central Government Expenditure on Revenue and Capital Account

A rising trend of the growth of public expenditure during 1980s from ₹ 36,854 crores in 1980-81 to ₹ 1,27,780 crores (budget estimates) in 1988-89 is quite alarming. During this period, the total public expenditure has grown at the rate of 16.9 per cent average annual compound growth rate, as against the 12.4 per cent average annual compound growth rate of national income. The ratio of public expenditure of Net National Product (NNP) at current prices has also increased steadily from 33.3 per cent in 1980-81 to 45.51 per cent in 1988-89. This rising trend of public expenditure in the Indian economy signifies the growth and important role of the public sector in assuming the commanding heights of the economy and the increasing functions and responsibilities of the government at all levels in the country. The tremendous rise in the public expenditure may be largely attributed to the increasing magnitude of Plan outlays in each successive Five Year Plan, rising population and corresponding rising demand for public goods, expanding public administration and the rising price level.

Structure of Public Expenditure

Economic planning and public policy have exercised a profound impact on the growth and structure of public expenditure in India. There has been a significant change in the structure of public expenditure under the impact of planning. The relative importance of development expenditure has progressively increased in every Plan. In 1950-51, the development expenditure constituted 37.4 per cent of the total expenditure which steadily increased to 66.3 per cent in 1980-81. Apparently, the non-development expenditure has declined from 62.6 per cent to 33.7 per cent during the period. However, during 1980s the non-developmental expenditure has increased enormously.

In absolute terms, the developmental expenditure has increased from ₹ 24,426 crores in 1980-81 to ₹ 78,107 crores in 1988-89. It has increased at average annual compound growth rate of 15.7 per cent during this period. The non-developmental expenditure has increased from ₹ 12,419 crores in 1980-81 to ₹ 49,673 crores in 1988-89. The average annual compound growth rate of non-developmental expenditure works out 19.2 per cent. This means the growth rate of the non-developmental expenditure has been faster than that of the developmental expenditure. This has obviously resulted into increasing proportion of non-developmental expenditure in the total public expenditure. Thus, the non-developmental expenditure was of the order of 33.7 per cent of the total expenditure in 1980-81 has, however, increased to 38.9 per cent of total expenditure in 1988-89. Correspondingly, the proportion of developmental expenditure has declined from 66.3 per cent to 61.1 per cent in the same period. This is, however, an unhealthy sign of the change in the pattern of public expenditure in recent years. It should be the

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cause of concern to our policymakers and the government as it reflects not only a deviation from the public policy of progressive allocation towards development but also depicts the element of reckless spending on the part of the government which has no social justification.

It may be further pointed out that during the period 1980-81 to 1989-90, the percentage of plan expenditure to the total expenditure of the Central government has steadily declined from 40.8 to 33.9 whereas non-plan expenditure has increased from 59.2 to 66.1. During the 1980s, the growth of non-plan expenditure of the Central government has exceeded than that of the plan expenditure. On an average, the compound annual growth of plan expenditure has been 13.5 as against 17.3 per cent growth rate of the non-plan expenditure during the period 1980-81 to 1989-90 (budgetary estimate).

Rising Expenditure of Defence, Interest Payments and Subsidy

The high growth of non-plan expenditure of the Government of India (GOI) in recent years may be attributed to the rising expenditure on three major items, namely: (i) defence, (ii) interest payments, and (iii) subsidies. Defence expenditure has increased from ₹ 3,604 crores in 1980-81 to ₹ 1,30,200 crores in 1988-89. In 1989-90, budget estimates, defence expenditure accounts for the 15.8 per cent of the total Central government expenditure. Likewise, the interest payments by the GOI also shows a phenomenal rise on account of large-scale public borrowings over the period. Interest payments have risen from ₹ 2,604 crores in 1980-81 to ₹ 14,150 crores in 1988-89 and its percentage to total expenditure has nearly doubled from 11.8 to 20.7 during this period. The ratio of defence expenditure to Net National Product (NNP) at current prices has increased from 3.5 in 1980-81 to 5 per cent in 1988-89 while the ratio of interest payments to NNP at current prices has increased from 2.4 to 5 per cent during the same period. Thus, 1/10th of national income is spent by the government for the purposes of defence and interest payments only. Defence, interest payments and subsidies together claim nearly half of the total public expenditure in the current years.

Impact of Expenditure

To trace the impact of Central government expenditure on total economic development, it would be useful to examine component-wise expenditure.

The proportion of Central government's expenditure on capital formation increased from 25.6 per cent in 1950-51 to 47.7 in 1960-61 but declined to 33.9 in 1970-71. Thereafter, it again moved up to 42.5 in 1981-82 but has steadily declined to 35.5 in 1988-89. This has been done on priority on account of rising proportion of expenditures on current transfers from 23.2 in 1950-51 to 38.5 per cent in 1988-89. The increasing transfer payments have taken place largely on account of steep rise in interest payment from 10 per cent in 1980-81 to 16.6 per cent in 1988-89.

Rise in Consumption Expenditure Due to Defence

The share of consumption expenditure declined sharply from 46.6 per cent in 1950-51 to 24 in 1960-61 but rose to 29.9 in 1970-71. It again declined to 23 in 1980-81 and 21.1 in 1985-86 respectively. It has again gone up to 24.1 per cent in 1988-89. Defence expenditure constitutes about 71 per cent of consumption expenditure of the Government of India.

Welfare Aspects of Public Spending

Analysis of data of plan and non-plan developmental expenditure of the Central governmental on economic and social services has tripled from ₹ 6,454 crores in 1980-

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81 to ₹ 19,945 crores in 1988-89. However, its share in total expenditure has declined from 29.1 in 1980-81 to 26.3 in 1988-89. In the total developmental expenditure on economic and social services, however, the share of economic services has steadily declined from 81.4 per cent in 1980-81 to 77.4 per cent in 1988-89 but the share of social services has steadily increased from 18.6 in 1980-89 to 22.5 per cent in 1988-89. This shows that the Government of India's public policy is becoming more welfare-oriented and is committed to the social upliftment of the masses in India. Especially, the Central government expenditure on education has increased considerably from ₹ 228 crores in 1980-81 to ₹ 1,422 crores in 1988-89. The 1989-90 revised budget estimates for ₹ 1,463 crores. Thus, the share of education in developmental expenditure is more than doubled from 3.5 in 1980-81 to 7.1 in 1988-89 and also in 1989-90. Indeed, investments in education is inevitable for the improvement of country's human capital. Another important factor of developing human capital is the investment on public health. The share of developmental health and family welfare, however, improved marginally from 4.9 per cent in 1980-81 to 5.2 per cent in 1987-88 and remained the same in the Union Budgets. For 1989-90, the share of labour, employment and labour welfare has declined from 6.3 per cent in 1980-81 to 1.2 per cent in 1988-89. This aspect certainly requires the attention of our policymakers.

Some Issues and Suggestions

Despite doubling the share of education in Government of India's developmental expenditure, it can be remarked that on an average it has been hardly around 2 per cent of our Net Domestic Product (NDP). It is 5 per cent to 7 per cent in countries like USA, Canada, UK, and even in developing country such as Zambia. Further, empirical studies have shown that the rate of growth of physical capital formation has been much faster than that of educational capital formation. For instance, H.N. Pandit[1] has observed that educational capital in India amounted to 3.5 per cent of NDP in 1950-51 and increased to 7.4 per cent in 1965-66 while the physical capital formation increased from 13.1 per cent to 17.9 per cent during the same period. Evidently, investment on education demands a higher priority in our public policy.

Education is an important in ingredient of growth and welfare. In promoting economic and social development, especially in a developing yet socially backward country like India where 64 per cent of the population is illiterate, development of education and educational facilities has special significance. The need for education is growing in this country, but till recently the trend of public expenditure reveal that this is perhaps one of the least favoured item of the government's expenditure (Central and states alike). Due to inadequate government expenditure and lack of appropriate education policy (new educational policy is less pragmatic and unrealistic in many ways), the education system and its development has not been up to the mark. It is disheartening to note that despite 40 years of planned efforts and increasing public expenditure, the government has not been able to assign the priority to education. Education should be made free and compulsory throughout the country. The higher education system has many problems and there is a growing frustration among the educated youths.

Reduction in inequalities of income and its equitable distribution is one of the major national goals. As per the latest information, the Government has succeeded in lowering the poverty ratio from 50 in 1977-78 to 37 per cent in 1984-85 and the Seventh Plan envisages to reduce it further to 26 per cent. However, the problem of poverty will

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assume alarming proportion by the year 2001 A.D. when the level of population expected to reach 1632 millions. Therefore, sound public expenditure policy in a pragmatic budgetary policy is required to achieve the country's various socio-economic objectives. In the light of the above analysis, it is necessary to control the growth of public expenditure, rationalisation of the expenditure policy so that the inflation can be brought under control.

Size and Growth Trends

Data in Table 2.1.3 reflect the rising trend. Over the years, there has been steady growth in total government spending from ₹ 23,194 crores in 1980-81 to ₹ 95,225 crores in 1989-90.

TABLE 2.1.3: INDIA: DEVELOPMENTAL AND NON-DEVELOPMENTAL EXPENDITURE OF THE CENTRAL GOVERNMENT [1989-90-2000-2005]

(₹ Crore)

Year	Development Expenditure (DE)	Non-development Expenditure (OE)	Total Expenditure (GE) (2 + 5)	DE/GE (%)	OE/GE (%)
1	2	3	4	5	6
1989-90	54204	41020	95224	56.9	43.1
1990-91	58645	49349	107994	54.3	45.7
1991-92	59313	55170	114483	51.8	48.2
1992-93	65479	60584	126063	51.9	48.1
1993-94	72464	73586	146050	49.6	50.4
1994-95	82803	82402	165205	50.1	49.9
1995-96	84427	98632	183059	46.1	53.9
1996-97	94197	112217	206414	45.6	54.4
1997-98	110994	127820	238814	46.5	54.5
1998-99	137257	150298	287555	47.7	52.3
1999-00	129151	177928	307079	42.1	57.9
2000-01	139386	197470	336856	41.4	58.6
2001-02	159364	215456	374820	42.5	57.5
2002-03	184197	242749	426946	43.1	56.9
2003-04	195428	243298	438726	44.5	55.5
2004-05*	220638	267197	407835	54.1	45.9
2005-06*	224004	305589	529593	42.3	57.7

*RE = Revised Estimates, *BE = Budget Estimates.

Note: Total expenditure in this table is inclusive of commercial departments in the revenue account.

Source: Budget documents of the Government of India.

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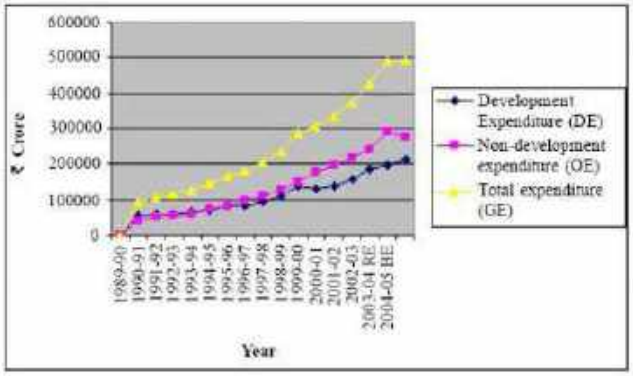

Fig. 2.1.15: India: Trends in Central Government Expenditures

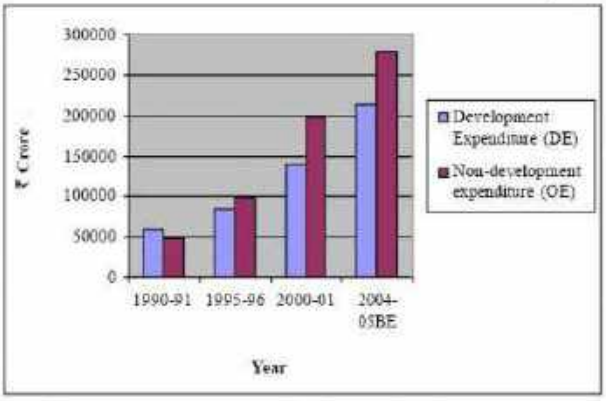

Fig. 2.1.16: India: Trends in Proportions of Developmental and Non-developmental Expenditures

In the year 2003-04, the total government expenditure amounted to ₹ 4,38,726 crores and ₹ 4,07,835 crores in 2004-05 as Budget 2005-06 envisaged it to be ₹ 5,29,593 crores.

Table 2.1.4 : India Revenue and Capital Expenditure of the Central Government

(₹ crore)

Year	Revenue Expenditure (RE)	Capital Expenditure (CE)	Total Expenditure (TE)
1	2	3	4
1989-90	64210	28698	92908
1990-91	73516	31782	105298
1991-92	82292	29122	111414
1992-93	92702	29916	122618
1993-94	108169	33684	141853
1994-95	122112	38627	160739
1995-96	139861	28414	178275
1996-97	158933	42074	201007
1997-98	180335	51718	232053
1998-99	216461	62879	279340
1999-00	249078	48975	298053

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2000-01	277839	47753	325592
2001-02	301468	60842	362310
2002-03	338713	74535*	413248
2003-04	362140	109228*	471368
2004-05 RE	386069	119722*	505791
2005-06BE	446512	67832	514344

RE = Revised Estimates, BE = Budget Estimates

* Include National Small Saving Found (NSSF) repayments apart from loans and advances capital outlay.

Source: GOI, Budget, Various Issues.

TABLE 2.1.5: PER CAPITA GOVERNMENT EXPENDITURES

(₹ crore)

Year	Development Expenditure per Capita	Non-development Expenditure per Capita	Total Revenue Expenditure per Capita
1	2	3	4
1989-90	798.29	604.12	1402.42
1990-91	713.44	600.35	1313.80
1991-92	706.95	657.57	1364.52
1992-93	764.94	707.76	1472.70
1993-94	831.01	843.88	1674.89
1994-95	928.28	923.79	1852.07
1995-96	927.77	1083.87	2011.64
1996-97	1015.05	1209.24	2224.30
1997-98	1173.30	1351.16	2524.46
1998-99	1423.83	1559.11	2982.94
1999-00	1313.85	1810.05	3123.90
2000-01	1392.47	1972.73	3365.20
2001-02	1563.93	2114.39	3678.32
2002-03	1776.25	2340.88	4117.13
2003-04	1867.54	2760.15	4627.69
2004-05 BE	1995.42	2592.84	4588.26

Source: Budget Documents of the Government of India.

Developmental and Non-developmental Central Government Expenditure

Over the year since 1989-90, an unhealthy trend is observed that the proportion of development expenditure into the total government spending has steadily declined, whereas the non-developmental expenditure in proportions has expanded continuously between 1990-91 the development expenditure claimed 54.3 per cent of share into the total government spending which declined to 40.4 per cent in 2003-2004. On the other hand, share of non-developmental expenditure increased to 59.6 per cent in 2003-04

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against 45.7 per cent in 1990-91. Only the trend is little reversed in the 2004-05, as per the budget revised estimate the share of non-developmental expenditure is reduced to 45.9 per cent, while that of development expenditure enhanced to 54.1 per cent. The Budget 2005-06, however, slipped again in favour of enhancing the relative share of non-developmental expenditure to nearly 58 per cent. They suggest that government has no control over extravagancy and fiscal profligacy.

Fiscal Ratios

In the year 2001-02, there was a decline in the total government expenditure as a proportion of GDP.

In many countries, fiscal adjustment is undertaken with downsizing government expenditure in a relative sense. In the case of Indian economy, Central government expenditure is contained with a decline from 18.9 per cent of GDP in 1991 to of GDP in 2004. This appears to be much in line with international standards. What is required is redesigning of its composition and allocation.

Government Expenditure (GE)-GDP ratios of the Central government in India continuously declined from 17.3 per cent in 1990-91 to 13.9 per cent in 1996-97. A rising trends, however, revived from 1997-98 to reach almost the previous level of 17.2 per cent in 2003-04. It was budgeted to reduce to 15.4 per cent in 2004-05. Though the level of expenditure is not very high by international comparison, the crucial problem pertains to its composition in the expenditure management. Revenue expenditure component has grown over the years, while the capital expenditure component has steadily declined. The revenue expenditure-GDP ratio declined from 4.4 per cent to 3.0 per cent during the same period. In 2003-04, however, the revenue expenditure-GDP ratio decreased to 13.5 per cent, while the capital expenditure-GDP ratio to be 12.4 per cent. The cause of the concern is that in 2004-05 the budget capital expenditure is lower at 3.0 per cent of GDP.

In the first half of the 1990s, total expenditure of the Central Government was compressed. The total expenditure GDP ratio declined from 17.3 per cent in 1990-91 to 13.9 per cent 1996-97. This has been mainly due to fall in development expenditure GDP ratio.

TABLE 2.1.6: EXPENDITURE-GDP RATIOS

(Per cent)

Year	Revenue Expenditure (RE-GDP)	Capita Expenditure (CE-GDP)	Total Expense TE-GDP)
1	2	3	4
1989-90	44.66	19.69	64.63
1990-91	15.12	6.54	21.66
1991-92	14.47	5.12	19.59
1992-93	14.19	4.58	18.77
1993-94	14.45	4.50	18.96
1994-95	14.21	4.50	18.71
1995-96	13.81	2.81	17.60
1996-97	13.38	3.54	16.92
1997-98	13.18	3.78	16.96

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1998-99	14.22	4.13	18.35
1999-00	14.31	2.81	17.12
2000-01	14.35	2.47	16.81
2001-02	14.43	2.91	17.34
2002-03	14.88	3.27	18.15
2003-04	14.69	4.51 1	9.20
2004-05	13.91	3.33	17.24

Source: Authors' Calculation Based on Data in Table 2.1.2.

2.1.12 SUMMARY

Government or public expenditure is that expenditure incurred by the public authorities to satisfy those common wants which the people in their individual capacity are unable to satisfy efficiently.

Public spending in developed countries is basically undertaken to check fluctuations in effective demand. In developing economies, public spending reflects government's aspirations, efforts and intentions to promote economic development and accelerate economic growth, to reduce income disparities, improve overall standards of living and eradicate abject poverty in the shortest duration possible.

Expenditures on construction of dams, public works, state enterprises, agricultural notes and industrial development, etc. are instances of capital expenditure. The traditional economists held the view that the State should not interfere in the general activity, for the government is merely an agent for the people to keep the political organisation intact, hence it should spend public funds discreetly and sparingly.

Modern economists conceive that public expenditure has a positive role to play to achieve definite ends. Its goal is to promote maximum social welfare. In fact, the significance of public spending lies in the supply of those essential services by the government for the satisfaction of collective wants, which might not otherwise be provided economically and efficiently by the private sector. Its importance lies in its lubricating quality also, as deficit spending of the government amounts to the criterion of additional money, which facilitates trade and exchange and stimulates further production and growth of national income.

The major objects of public expenditures are summarised below: (i) Administration of law and order and justice, (ii) Maintenance of police force, (iii) Maintenance of army and provision for defense goods, (iv) Maintenance of diplomats in foreign countries and (v) Public administration.

According to Adolf Wagner, there exists a functional relationship between the growth of an economy and the relatively increasing governmental activity through the expansion of public sector. He, thus, set a hypothesis which contends that the real per capita output of the public sector grows as a proportion of aggregate economic activity, as the real per capita income tends to rise in a modern welfare state.

The defense expenditure is thus continuously rising. It contains expenditure on war materials, maintenance and growth of armed forces, naval and air wings, expenses on development of military art and practice, pensions to retired war personnel, interests on war debt, rehabilitation cost of war, etc.

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Detection of possible causality linkage between government expenditure and tax revenue is, thus, essential in providing an appropriate guideline to the policymakers in deciding a suitable and relevant fiscal action.

In economic literature, the expression "canons of public expenditure" is used for the fundamental rules or principles governing the spending policy of the government. In fact, the canon of sound finance consists more in wise spending than in the collection of revenue. Thus, the following canons of public expenditure have been laid down by Prof. Findlay Shirras: (i) the canon of benefit, (ii) the cannon of economy, (iii) the cannon of sanction, and (iv) the cannon of surplus.

Public expenditure is significant in modern economy because it produces many direct and indirect socio-economic effects. A brief account of these effects is presented below: (1) Effect on Consumption and (2) Effects of Public Expenditure on Production.

Total public expenditure in the India economy include: (i) the aggregate of revenue account expenditures in the Central and State governments' budgets, and (ii) the aggregate of capital outlay of the Central and State governments.

Government subsidies have economic effects on the working of the markets by decreasing relative policies. From the trend analysis, we conclude that the government subsidies in India are unduly large, implicit and input-based and regressive in nature. Such subsidies are criticised to be observe and promoting inefficiencies in the market economy. Under the fiscal reforms initiated since 1991, the policymakers have recognised this aspect of subsidies and have expressed their desire to curb subsidies.

The Government of India had set up an Expenditure Reforms Commission (2001) to improve expenditure management. The Commission submitted two reports dealing with the issues of food and fertilizer subsidies and optimising government staff strength.

2.1.13 SELF ASSESSMENT QUESTIONS

1. What is Public Expenditure?
2. Discuss the nature of Public Expenditure.
3. Explain the causes of rise of Public Expenditure.
4. Explain Pigou's ability-to-pay approach.
5. Explain Lindahl's voluntary exchange model of Public Expenditure.
6. Discuss the Johansen's approach of public finance.
7. Explain Samuelson's solution on Public Expenditure.
8. Explain the Wagner's law of Increasing State Activities.
9. Discuss the effects of Public Expenditure on production and distribution.
10. Explain welfare aspects of public spending.

2.1.14 **Key Terms**

1. **Public Expenditure**: The spending by government authorities on goods and services to meet the needs of the public and achieve policy objectives.
2. **Capital Expenditure**: Spending on assets that provide long-term benefits, such as infrastructure projects, buildings, and equipment.
3. **Current Expenditure**: Spending on day-to-day operations and maintenance, including salaries, supplies, and services.
4. **Social Expenditure**: Spending on social welfare programs and services aimed at improving the well-being of citizens, such as healthcare, education, and social security.
5. **Defense Expenditure**: Spending on national defense and military activities, including personnel salaries, equipment procurement, and operational costs.
6. **Transfer Payments**: Payments made by the government to individuals or other entities without receiving goods or services in return, such as social security benefits, pensions, and subsidies.
7. **Development Expenditure**: Spending on programs and projects aimed at promoting economic development, reducing poverty, and enhancing infrastructure in developing countries.
8. **Revenue Expenditure**: Spending that is recurring and does not result in the creation of assets, such as salaries, pensions, and interest payments on debt.
9. **Discretionary Expenditure**: Spending that is subject to annual budget decisions and can be adjusted by policymakers, such as grants, subsidies, and investments.
10. **Non-Discretionary Expenditure**: Spending that is mandated by law or contractual obligations and cannot be easily adjusted, such as debt interest payments and entitlement programs.
11. **Fiscal Policy**: The use of government spending and taxation to influence the economy, including public expenditure decisions aimed at achieving economic stability, growth, and equity.

2.1.15 Reference:

1. The Theory of Public Finance- R.A. Musgrave

2. Government Finance (Economics of the Public Sector)- J.F Due and F. Friedlander

3. Modern Public Finance- B.P. Herber

4. A Study of Public Finance- A. C. Pigou

5. Financing Government-M. A. Groves

6. Public Finance in Underdeveloped Countries- A. R. Priest

7. Public Finance and Fiscal Policies- Allan Williams

8. Economics of Co-Public Expenditure- T. Mathew

9. Economics of Control Chapters on functional finance- A. P. Lerner

UNIT - III

3.1 Chapter

PUBLIC REVENUE

Objectives

After completing this chapter, you will be able to:

- Understand the concept of Public Revenue and Public Finance
- Know the classification of taxes
- Understand the principles of taxation
- Understand the concepts of tax burden
- Know the incidence theories of shifting risk and Musgrave's view on shifting
- Understand the Joseph-Stigler's thesis
- Know taxable capacity

Structure:

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3.1.1 MEANING AND SIGNIFICANCE OF PUBLIC REVENUE

Any public authority or government needs income for the performance of a variety of functions and meeting its expenditure. The income of the government through all sources is called public income or public revenue. According to Dalton, however, the term "public income" has two senses — wide and narrow. In its wider sense, it includes all the incomes or receipts which a public authority may secure during any period of time. In its narrow sense, however, it includes only those sources of income of the public authority which are ordinarily known as 'revenue resources.' To avoid ambiguity, thus the former is termed 'public receipts' and the latter 'public revenue.' As such, the receipts from public borrowings (or public debt) and from the sale of public assets are chiefly excluded from public revenue. For instance, the budget of the Government of India is classified into: 'revenue' and 'capital.' 'Heads of revenue' include the heads of income under revenue budget, whereas the heads of income under capital budget are termed as 'receipts.' Thus, the term 'receipts' includes sources of public income which are excluded from 'revenue'.

The necessity of public revenue is, of course, due to the needs of public expenditure. The size of public revenue is, thus, determined by the volume of public expenditure. Since the functions of modern governments have increased in scope and variety, the public expenditure has been increasing day by day. Therefore, public revenue has to be enlarged adequately. The government has to find sufficient money for discharging its functions. There is, thus, a tendency on the part of the modern governments to increase the public revenue, by tapping all possible sources.

Thus, volume and importance of public revenue has greatly increased in recent times. Further, the size of public revenue and the methods of obtaining it have serious repercussions on the production and distribution of national income and wealth as well as on the level of employment and economic activity in the country. A suitable public revenue policy, therefore, becomes very essential for the financial activities of a modern state.

Raising of more public revenue implies creating disutility for taxpayers. The process, thus, tends to affect the social welfare adversely. But, its immediate adverse effect is more than compensated by the favourable effect of appropriate public expenditure policy. Public authority works for the common benefit and to carry out their functions properly, they need adequate revenue for spending. Thus, the norm that the government which taxes least and spends least in not very sound in the modern times. A welfare government is perfectly justified in raising a large revenue from its people. It serves as an essential fiscal measure for achieving social justice and economic equality. But taxing the richer section of community more heavily, the state can subdue the pressure of excessive purchasing power from the economy, thus, helping in curbing the inflationary forces and by an appropriate public spending can transfer this purchasing power for the benefit of the poor, thereby increasing the general economic welfare.

Public revenue, by itself, indicates only a means or mere availability of resources and nothing else. It is thus not only the size and the composition of public revenue that is very essential for achieving the maximum welfare of the community. It all depends on how the resources are raised and utilised. If money is widely disbursed, then a large amount of public revenue can signify greater welfare of a nation. Otherwise, the country

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may go to the dogs if the government unwisely incurs extravagant expenditures. Thus, sound public expenditure is no less important than adequate public revenue in the operation of public finance.

3.1.2 TAX REVENUE

A fund raised through the various taxes is referred to as tax revenue. Taxes are compulsory contributions imposed by the government on its citizens to meet its general expenses incurred for the common good, without any corresponding benefits to the taxpayer. As Taussig puts it, "the essence of a tax, as distinguished from other charges by government, is the absence of a direct *quid pro quo* between the taxpayer and the public authority."

Seligman defines a tax thus: "A tax is a compulsory contribution from a person to the government to defray the expenses incurred in the common interest of all, without reference to special benefits conferred."

The main characteristic features of a tax are as follows:

1. A tax is a compulsory payment to be paid by the citizens who are liable to pay it. Hence, refusal to pay is a punishable offence.
2. Taxes are the major source of public revenue.
3. Tax revenues are regular and certain.
4. Tax is an elastic source of public revenue.
5. It is levied by government on a tax base such as income, wealth, expenditure and sales etc.
6. There is no direct *quid pro quo* between the taxpayer and the public authority. In other words, the taxpayer cannot claim reciprocal benefits against the tax paid. However, as Seligman points out, the state has to do something for the community as a whole for what the taxpayers have contributed in the form of taxes. 'But this reciprocal obligation on the part of the government is not towards the individual as such, but towards the individual as part of a greater whole.'
7. A tax is levied to meet public spending incurred by the government in the general interest of the nation. It is a payment for an indirect service to be made by the government to the community as a whole.
8. A tax is payable regularly and periodically as determined by the taxing authority.
9. A tax is used as a fiscal instrument.
10. Evasion of tax is illegal.

Taxes constitute a significant part of public revenue in modern public finance. Taxes have macroeconomic effects. Taxation can affect the size and mode of consumption, pattern of production and distribution of income and wealth. Progressive taxes can help in reducing inequalities of income and wealth by lowering the high income group's disposable income. By disposable incomes is meant the income left in the hands of the taxpayer for disbursement after tax payment. Taxes imply a forced saving in a developing economy. Thus, taxes constitute an important source of development finance.

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3.1.3 NON-TAX REVENUE

Public income received through the administration, commercial enterprises, gifts and grants are the source of non-tax revenues to the government. Thus, non-tax revenue include: (i) Administrative revenue; (ii) Profit from state enterprises; and (iii) Gifts and grants.

Administrative Revenues

Under public administration, public authorities can raise some funds in the form of fees, fines and penalties, and special assessments.

Fees: Fees are charged by the government or public authorities for rendering a service to the beneficiaries. To quote Seligman, "A fee is a payment to defray the cost of each recurring service undertaken by the government, primarily in the public interest, but conferring a measurable advantage to the payer." Court fees, passport fees, etc. fall under this category. Similarly, license fees are charged to confer a permission for something by the controlling authority, e.g., driving license fee, import license fee, liquor permit fee, etc. Fees are to be paid by those who receive some special advantages. Generally, the amount of the fee depends upon the cost of service rendered. Fees are a by-product of the administrative activities of the government and not a payment for a business. Thus, fees are distinct from prices. Prices are always voluntary payments, but fees are compulsory contributions, though both are made for special services. Sometimes, a fee contains an element of tax when it is charged high in order to bring revenue to the exchequer, e.g., a license fee.

Fines and Penalties: Fines and penalties are levied and collected from offenders of laws as punishment. Here the main object of these levies is not so much to earn an income as to prevent the commission of offences and infringement of laws of the country. Fines and penalties are arbitrarily determined and have no relation to the cost of administration or activities of the government. Hence, collections from such levies are insignificant as a source of public revenue.

Special Assessments: "A special assessment," as Seligman points out, "is a compulsory contribution levied in proportion to the social benefits derived to defray the cost of a specific improvement to property undertaken in the public interest." That is to say, sometimes when the government undertakes certain types of public improvements such as construction of roads, provision of drainage, street lighting, etc., it may confer a special benefit to those possessing properties nearby. As a result, values or rents of these properties may rise. The government, therefore, may impose some special levy to recover a part of the expenses so incurred. Such special assessment is levied generally in proportion to the increase in the value of the prosperities involved. In this respect, it differs from a tax.

In India, these special assessments are referred to as "betterment levy." Betterment levy is imposed on land when its value is enhanced by the construction of social overhead capital such as roads, drainage, street-lighting, etc. by the public authority in an area.

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Profits of State Enterprises

Profits of state undertakings also are an important source of revenue these days, owing to the expansion of the public sector. For instance, the Central Government runs railways. Surplus from railway earnings can be normally contributed to the revenue budget of the Central Budget. Likewise, profits from the State Transport Corporation and other public undertakings can be an important source of revenue for the budgets of State Governments. Similarly, other commercial undertakings in the public sector such as Hindustan Machine Tools, Bokaro Steel Plant, State Trading Corporation, etc. can make profit to support the Central Budget.

Earnings from state enterprises depend upon the prices charged by them for their goods and services and the surplus derived there from. Thus, the pricing policy of state undertakings should be self-supporting and reasonably profit-oriented. Again, prices are charged with an element of *quid pro quo*, i.e., directly in proportion to the benefits conferred by the services rendered.

A price is a form of revenue derived by the government by selling goods and services of public enterprises. Thus, price is the revenue obtained from business activity undertaken by the public authorities. Many public enterprises like postal services run on a cost-to-cost basis. The prices are charged just to cover the cost of rendering such services. However, in certain cases, where the state has an absolute monopoly, prices having a high profit element are charged. Such monopoly profits of a state enterprise are in the nature of a tax. The difference between price and fees is this: the former usually can never be less than the cost of production or service, while the latter may not necessarily cover the cost of service.

Gifts and Grants

These form generally a very small part of public revenue. Quite often, patriotic people or institutions many make gifts to the states. These are purely voluntary contributions. Gifts have some significance, specially during war time or an emergency. In modern times, however grants from one government to another has a greater importance. Local governments receive grants from State governments and State governments from the Centre. The Centre governments gives grants-in-aid to state governments in order to enable them to carry out their functions. When grants are made by one country's government to another country's government, it is called 'foreign aid.' Usually, poor countries receive such aid from developed countries, which may be in the from of military aid, economic aid, food aid, technological aid, and so on.

3.1.4 CLASSIFICATION OF TAXES: DIRECT AND INDIRECT TAXES

Conventionally on the basis of the nature of the impact and incidence, taxes have been classified into two — direct and indirect.

A tax which is paid by the person on whom it is legally imposed and the burden of which cannot be shifted to any other person is called a direct tax. J.S. Mill defines a direct tax as "one which is demanded from the very persons who, it is intended or desired, should pay it." The person from whom it is collected cannot shift burden to somebody else. Thus, the impact, i.e., the initial or first burden and the incidence — the ultimate

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burden of a direct tax — is on the same person. The taxpayer is the tax bearer. For example, income tax is a direct tax.

An indirect tax, on the other hand, is a tax, the burden of which can be shifted to others. Thus, the impact and incidence of direct taxes are on different persons. An indirect tax is levied on and collected from a person who manages to pass it on to some other person or persons on whom the real burden of the tax falls. Hence, in the case of indirect taxes, the taxpayer is not the tax bearer. Commodity taxes are generally indirect taxes, as they are imposed on the producers or sellers, but their incidence falls upon the consumers as such taxes are wrapped up in the prices.

The gist of the distinction, thus, lies in its shifting. A tax which cannot be shifted is direct; and one which can be shifted is indirect. Though the conventional distinction between direct and indirect taxes is logical enough, it is very difficult to apply it in practice. It presupposes a fairly good knowledge of the particular behaviour of the people regarding tax payments. Unless we know that the tax is shifted from the immediate taxpayer to someone else, we cannot categorise it as direct or indirect. Further, difficulties arise when a tax is partially shifted and partially borne by the person on whom it is imposed. Does it mean that half the tax is direct, and half indirect? Certainly not. To this difficulty, as raised by Prof. Prest, we may answer that the possibility of shifting in any degree should be regarded as the criterion of deciding an indirect tax. And lack of any shifting is to imply a direct tax.

Many modern writers, however, distinguish between direct and indirect taxes on the basis of assessment, rather than on the point of assessment. Taxes are generally assessed on the basis of income received or expenditure incurred. Hence, taxes which are based on income are called direct, and those which are levied on outlays are called indirect taxes.

In the group of direct taxes, usually, income tax, wealth tax, property tax, estate duties, capital gains tax, capital levy are included, while commodity taxes or sales tax, excise duties, customs duties, etc. are grouped as direct taxes.

3.1.4.1 Advantages of Direct Taxation

The following advantages of taxes are commonly pointed out:

1. Equity: Direct taxes like income tax, wealth tax, etc. are based on the principle of ability to pay. So, the equity or justice in the allocation of tax burden is well secured by these taxes. A horizontal equity is maintained by taxing persons in the similar economic situation at the same rate, so also the vertical equity in direct taxation is maintained by discriminating between taxpayers according to their differing economic standing.

2. Progressive: Usually, direct taxation are progressive in effect. Since direct taxes are designated with fine gradation and progressiveness, they can serve as an important fiscal weapon of reducing the gap of inequalities in income and wealth. Direct taxes can, thus, lead to the objective of social equity. Death duties and inheritance taxes are unique in this respect.

3. Productive: Direct taxes are elastic and productive. Revenue from direct taxes increases or decreases automatically with the change in the national income or wealth of the country. For instance, the income tax yield in India has increased from ₹ 133 crores in

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1950-51 to ₹ 1,430 crores in 1981-82 when the national income (estimated at current prices) had gone up from ₹ 9,350 crores to ₹ 1,13,852 crores during the same period.

4. Certainty: The canon of certainty is perfectly embodies in direct taxation. Compared to indirect taxes, direct taxes are more exact and precise in estimating the revenue. Further, in direct taxes, the taxpayer knows how much he has to pay and the state can estimate the yields correctly.

5. Economy: The canon of economy is also well maintained under direct taxation. Direct taxes like income tax etc., being collected annually in lump sum, the administrative costs of collection will be minimum as compared to the indirect taxes like sales tax, excise duties, etc., which are collection at short intervals, (usually quarterly), and which involve high costs of collection. Further, chances of tax evasion are also minimised in direct taxes when the are collected at source. Gladstone, therefore, puts it as: "If you had only direct taxes, you would have an economical government."

6. Educative: Direct taxes have an educative value, as they create a civic sense among the taxpayers. Citizens realise their duty to pay tax and because of the direct burden of taxes they become conscious and keep vigil on how the public income is spent by government in a democratic country.

7. Anti-inflationary: Direct taxation can serve as a good instrument of anti-inflationary fiscal policy designed to maintain the price level at a stable level. The excessive purchasing power during inflation can be seized away from the community through increased direct taxes.

3.1.4.2 Disadvantages of Direct Taxation

Direct taxes, however, have the following disadvantages:

1. Pinching: Since direct taxes are to be paid in lump sum they pinch the taxpayers more. Thus, the announcement effect of a direct tax always tends to cause resentment among the taxpayers.

2. Inconvenient: Direct taxes do not confirm to the canon of convenience as returns of income tax, wealth tax, etc., are to be filed in time and complete records are to be maintained up-to-date by each individual taxpayer. Moreover, it is very inconvenient to pay these taxes are they are collected in lump sum.

3. Evasion and Corruption: Since the assessment of direct taxes depend upon the voluntary declaration of the taxpayer about his income, wealth, etc., there is great scope for tax evasion by concealing real income. Thus, in fact, under direct taxation, honesty is taxed while dishonesty is rewarded. Tax evasion in effect leads to corruption also.

4. Uneconomical: Direct taxes are not so economical as they are claimed to be elaborate machinery is required for their collection as each and every assesses has to be contacted individually and properly checked to prevent tax evasion. Nevertheless, it must be admitted that direct taxes are generally more productive of revenue than indirect taxes. Moreover, indirect taxes too are uneconomical in this respect.

5. Narrow-based: Direct taxes are generally narrow based; therefore, a large section of masses remain untouched and to that extent they fail to achieve their objective

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of promoting civic sense among the citizens. Especially, the poor section of the community remains untouched under direct taxes.

6. Arbitrary: The nature and base of direct taxes and arbitrarily decided by the exchequer. The Finance Minister uses his own value judgement in determining the taxation potential of a taxpayer. There is no scientific formula or base for evolving the mode of gradation and progression in direct taxation.

7. Disincentiveness: Direct taxes being based on income and wealth, if they are excessive may discourage savings and kill the incentive to work hard.

In evaluating all these demerits, we may, however, find that they are the result of administrative difficulties and inefficiencies rather than any economic principle. Bastable, therefore, rightly concludes that taking the defects and merits together, direct taxation ought to be a part of every modern financial system, and the extent to which it can be applied will, of course, depend on the particular economic state of the country. A rich country has greater scope for direct taxation than a poor country.

3.1.4.3 Advantages of Indirect Taxation

In the following respects, indirect taxes can be regarded better than direct taxes:

1. Convenient: Indirect taxes are more convenient to pay. These taxes, generally being on commodities, are wrapped up in prices, hence, the taxpayer does not feel the burden directly.

2. Less Pinching: The announcement effect of indirect taxes does not provoke wild resentment, because they cause less annoyance to the public, as they are not felt directly. The main merit of an indirect tax is that it is always disguised and it pinches the taxpayers less as he is kept in dark about how much commodity taxation he has paid in his total spendings.

3. Not Easily Evaded: Indirect taxation are difficult to evade, as they are usually merged with prices.

4. Broad-based: Indirect taxation usually being commodity taxes have a broader scope than direct taxation. The low income strata of the society which are exempt from direct taxes can be easily caught in the net of taxation through indirect taxes to render the sacrifice according to their ability to pay. Thus, indirect taxation may be considered as a balancing factor in the equity of a tax system.

5. Social Value: Indirect taxes have a high social value. They can serve to improve social morale and public health by discouraging the consumption of such harmful commodities as intoxicants, tobacco, etc.

6. Forced Saving: Indirect taxes are an effective means of mopping up consumers' surplus and thereby diverting the saving potential of the community at large into the hands of the government, which can be utilised fruitfully in expediting the process of capital formation in the country.

7. Complementary: Additional revenue can be easily obtained by introducing an indirect tax rather than a direct tax, without disclosing its real sacrifice to the public. Indirect taxes in fact, can serve as complementary to the direct taxes.

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If a person escapes from direct taxation, he will be caught in the net of indirect taxes.

8. Can become Progressive: Indirect taxes on luxuries and semi-luxuries are progressive in effect, as they fall on the rich people's consumption outlays.

3.1.4.3 Drawbacks of Indirect Taxes

Indirect taxes are not an unmixed blessing. They have many inherent drawbacks such as:

1. Inevitable: Indirect taxes are unjust and inequitable as they are regressive in effect. Since they are charged at a proportional rate on commodities of general consumption, their burden falls more heavily upon the poor sections of the people. They are not levied according to the principle of ability to pay.

2. Less Productive: Indirect taxes do not conform to the canons of economy and productivity. As these taxes involve many stages, the cost of correction is usually high in relation to the revenue yielded. Further, an indirect tax is not as productive as a direct tax.

3. Inflation Productive: Indirect taxes prove to be inflationary when excessively relied upon. They sometimes benefit more the traders than the government when prices tend to go up by more than the amount of the tax. In Indian, for instance, excessive indirect taxation on commodities of mass consumption may be blamed as being an important factor contributing to the inflationary price spiral in the country.

4. Disincentive Effect: Indirect taxes discourage savings when the people have to spend more with a rise in the prices of commodities.

5. Uneducational: Indirect taxes being invisible, as they are collected through middlemen like traders, have no direct link between the taxpayers and the government; hence, they do not promote any civic sense.

3.1.5 THE INDIAN TAX STRUCTURE

A brief resume of the taxes levied by the Union Government will be worthwhile here.

The direct taxes of the Government of India are: (i) Income-tax, (ii) Capital gains tax, (iii) Estate duty, (iv) Wealth tax, (v) Gift tax, (vi) Expenditure tax, (vii) Company taxes. The first six of these regarded as personal taxes as they are paid by individuals.

Income Tax

The income tax is levied on the net income of individuals, Hindu undivided families, unregistered firms and other associations of persons. Incomes of religious and charitable trusts are, however, exempted from income tax. Further, agricultural incomes are not included in taxable income. In 1995-96 budget, income up to ₹ 40,000 per year was not subject to tax. Further, deductions and exemptions are allowed on account of life insurance, contributions to provident funds, and on cumulative time deposit accounts at post office savings bank.

In India, for calculating income tax, the 'slab system' is followed. Thus, the whole income is not taxed at the same rate but in successive slabs, i.e., slices of income are

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taxed at rising rates. In India, in the past the personal income tax has been highly progressive, the highest marginal rate of income tax (inclusive of surcharge) being 97.70 per cent even after revision of tax rates in the Union budget for 1974-75. Interestingly enough, before the revision, the marginal rate of income tax on the highest slab over ₹ 3 lakhs was 97.75 per cent. The Government justified this on the equalitarian principle of 'ability-to-pay.' But, its economic effect is adverse as it tends to kill incentive to work and reduce the capacity to save. Long back, Prof. Kaldor has suggested that a reasonable limit of marginal tax rate should be of 45 per cent of income at the most.

In recent years, however, the Government of India realised its folly and has revised the income tax rates with a downward trend. A recent picture is shown by the data in Table 3.1.1.

TABLE 3.1.1: INCOME-TAX RATES IN INDIA

Taxable Income Slabs (`)	Tax Rate (2003-04) Budget)
Upto 50,000	Nil
50,000 - 60,000	10%
60,000 - 1,50,000	20%
Above 1,50,000	30%

Source: GOI Budget, 1995-96.

Capital Gains Tax

It is a tax on gains from the sale, exchange or transfer or capital assets.

Capital gains taxes are levied on the difference between the sales price and purchase price of an asset, such as share, property, etc.

Capital gains taxes have the following drawbacks:

1. They may involve double taxation. On shares, for instance, companies already have paid profit tax and they may retain some profits to enhance the value of the shares. Under capital gains taxes when a stockholder sells his shares, he pays tax on this value added as well.
2. Capital gains taxes may thus deter saving.
3. Capital gain taxes may distort investment. To avoid capital gains tax, a person has to invest the gained amount immediately. This may lead to an undesirable shift in investment from more productive to less productive channels.
4. When nominal gains and real gains are not distinguished, during inflation, a tax on nominal gain would mean a high effective tax rate on the real gain. Suppose, for instance, cumulative inflation rate for five years is 8 per cent, then capital gains of 40 per cent when the asset is sold after five years would mean zero real return and yet the earner is subject to capital tax which is unjustified.

A cut in capital gains tax is desirable under inflationary situation. Moreover, it is also recommended to improve savings.

In a political economy, the issue of capital gains tax is more of a political nature rather then economic need.

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It was introduced in 1947 and abolished in 1950. Following Prof. Kaldor's recommendation, the tax was reimposed in 1956. Capital gains exceeding ₹ 5,000 in value in a year are taxed with the other income of the assessee, but no tax was chargeable when the total income of the assessee did not exceed ₹ 10,000. Till March 31, 1972, in respect of long-term capital gains by taxpayers other than companies, 45 per cent of the amount of capital gains in excess of ₹ 5,000 was deducted from the total income of the assessee if the gains are realised from lands or buildings. And, if such gains are from other capital assets, deduction allowed was 65 per cent of the amount of the long-term capital gains in excess of ₹ 5,000. But from 1972-73, the deduction allowed was reduced to 35 per cent and 50 per cent respectively. The rates of tax on long-term capital gains realised by companies have been raised from 40 per cent to 45 per cent in respect of gains realised from lands and building and from 30 per cent to 35 per cent in respect of such gains from other assets.

In 1070-71, the capital gains tax was extended to the sale of agricultural land in urban areas, i.e., towns and cities with a population of not less than 10,000. Capital gains from April 1996, tax on bonus shares is to be calculated by taking the cost of acquisition of bonus share as nil for the computation of capital gains on interest on bonus shares. Prior to this cost of bonus share was measured on the principle of averaging.

Estate Duty

It is a tax which is imposed on the estate of a deceased person which is inherited by his heirs. It was introduced in 1953, it is levied on the total property passing or deemed to pass on the death of a person. It is, however, levied on net property, i.e., after deducting the debts. It is a progressive tax. It starts with 4 per cent on the principle value of the estate exceeding ₹ 50,000 to ₹ 1,00,000. Then the tax rate rises up to 40 per cent on the higher slab.

The Boothalingam Report, however, recommended estate duty to be replaced by succession duty. Succession duty is levied according to the share of each individual successor and not the total value of the estate left by deceased.

Wealth Tax

In order to reduce the inequalities of wealth, Prof. Kaldor had recommended an annual tax on wealth. It was imposed as from 1st April, 1957. it is an annual tax on the net wealth of individuals and Hindu undivided families.

The merit of this tax is that it introduces grater equity in the tax system and also reduces possibilities of tax evasion. Further, the tax rates have been fixed at reasonably low levels, hence the disincentive effect of the tax is very little. The tax also does not discriminate against the use of capital. But, in view of a very steep income tax, wealth tax is an additional burden on the higher income groups.

Gift Tax

In addition to the estate duty and the wealth tax, a tax on gifts was levied in April 1958. It easy considered as a necessary measure to check the evasion of the expenditure tax, the wealth tax and estate duty. The tax is charged to the donor per every financial year on gifts made by him during the previous year. The rates are based on a slab system.

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Expenditure Tax

It was imposed in April 1958, on the recommendation of Prof. Kaldor. Its motive was to check tax evasion, discourage lavish expenditure, and encourage saving. After deducting all allowances, the tax was levied at rates varying from 10 per cent on the first ₹ 10,000 of taxable expenditure to 100 per cent on taxable expenditure over ₹ 50,000. But, in practice, hardly 2 per cent of the total number of income tax assesses were liable to pay this tax, on account of the numerous exemptions. The revenue collection was, therefore, less than ₹ 1 crore per year. As such it was abolished from April 1962. The tax was, however, reimposed in April, 1964, which was again abolished in 1966. The main reason for the abolition was administrative difficulties and the high cost of collection. Expenditure tax on a selective basis was reintroduced in 1987. It was levied on hotel expenditure as accommodation charges and expenditure on food and drinks served.

Company Taxes

In India, the structure of company taxation is very complex. It includes: (i) Corporation tax, (ii) Excess dividend tax, (iii) Tax on bonus shares, (iv) Capital gains tax, (v) Super profits tax and surtax, and (vi) Dividend tax. This multiplicity of company taxes imposes a heavy burden on the companies. In order to minimise its disincentive effect, the government has, however, taken a number of measures in the last few years. In 1993-94 Budget, for instance, there has been huge cuts in customs and excise duties. Basic and special excise duties merged. Tax holiday for new investment in industrially backward areas have been announced.

Custom Duties

These are the duties on imports and exports. Most of the duties are now ad valorem. In certain cases, specific duties are also provided in addition.

Import duties in India are levied with two objectives in mind: (i) protection, and (ii) revenue. But since most of the import duties are raised to the protective level, income from them has been declining.

As regards export duties, the recent trend is for their abolition or minimisation so as to encourage exports for improving India's balance of payments. Thus, export duties are less productive for the revenue accruing to the government.

Excise Duties

Excise means a tax on duty on home produced goods, either in the process of their manufactures or before their sales to consumers. The Union excise duties have been an important and growing source of revenue to the government.

Excise duties in India are levied basically for the following purposes:

(i) To fetch revenue.

(ii) To restrict consumption of the articles taxed.

(iii) To encourage the production of certain varieties of commodities by restricting the production of others (i.e., sort of internal protection).

Indeed the Indian tax system also contains an element of built-in flexibility.

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Though the Indian tax system has undergone a process of evolution during the planning era, certain severe drawbacks yet remain to be overcome. These are:

(i) Its tax structure is complex and complicated. Taxation rules are many and ambiguous, containing many loopholes to the advantage of tax-evaders.

(ii) Its tax collection machinery is extravagant. So, in certain cases cost of tax collection has exceeded the tax yields, e.g., expenditure tax. That is to say, Indian tax system lacks the canon of economy. Further, the tax collection system is also operating very slow, as such, there are many pending cases of assessments for years together, especially those of income tax and wealth tax. Recently, Account Numbering System has been adopted for expediting the work of the collection machinery.

Value Added Tax (VAT)

As Dr. Chelliah points out, canon of horizontal equity remains unsatisfied in the Indian tax system. For instance, industrialists and farmers in the same category of income position have not been treated equally. Till now, even after the recommendation of Wanchoo Committee and the directives of fiscal policy issued by the Planning Commission, agricultural income has been left untaxed, just for political reasons. Again, non-agricultural income from different sources have been equally treated, where distinction has been made between professional earnings and incomes from trading; in the former case skill and efforts are important and hard work is the main factor, whereas in the latter case, chance elements, market trends, hoardings and unscrupulous measures along with monopoly are supposed to be the main factors in getting high returns. In India, the 1985 long-term fiscal policy introduced the idea of Modified Value Added Tax (MODVAT). Under the scheme, manufacturers are allowed to get complete reimbursement of excise duty paid on the imports. In 1995-96 Budget, lowered customs and excise duties on number of items.

3.1.6 PRINCIPLES OF TAXATION

The Concept of Equity

Nicholas Kaldor once said: "Early writers regarded a just system of taxation as one which distributed taxes in accordance with the benefits conferred the state; the English tradition, based on the utilitarian philosophy of the 19th century, regards distribution of the burden according to ability as the basic criterion of a just system of taxation."

The concept of equity in taxation refers to the social justice in the allocation of tax burden. Taxation imposes a burden upon taxpayers. There is a money burden and a real burden of taxation which may be direct and/or indirect. The direct money burden of taxation refers to the amount of money income the people have to pay as taxes to the government. It decreases the disposable money income of the people. The direct – (real) – burden, however, means the amount of sacrifice (disutility) involved in parting with purchasing power in the tax payment. Equity or fairness in the distribution of this real burden is considered as important test of a tax system.

Usually, the total direct real burden of taxation has been interpreted in two senses: objective and subjective. In the objective sense, it refers to the real income – the volume of goods and services raised from the community by way of tax. In the subjective sense,

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it refers to the aggregate of the amount of sacrifice (disutility) suffered by each individual in parting with the purchasing power in tax payment. Here, the term sacrifice implies reduction in consumption standard, indirect burden of taxes, however, refers to its effects on the price level, on incomes, output, and employment. A tax system must contain an equitable distribution of the tax burden in order to achieve economic and social justice – the avowed objective of a modern welfare state.

Equity, in short, implies equality of real sacrifice (or income disutility) involved in tax payments on the part of taxpayers. There are two criteria of equity suggested: (i) Horizontal equity and (ii) Vertical equity. Horizontal equity implies that all the taxpayers having similar economic conditions must be treated on par. While taxing, no discrimination should be made among the people with identical capacities. On the other hand, vertical equity implies that different persons in different economic situation and capacities are treated unequally. Apparently, people in a better economic position should be taxed more than those under poor economic conditions. A perfect equity is, thus, maintained only if horizontal and vertical equities are well integrated in the tax structure.

Any attempt to achieve vertical and horizontal equity simultaneously is, however, not at all an easy task and can lead to ludicrous results. For an equitable distribution of tax burden, the following three principles have been laid down by economics: (1) Cost of Service Principle, (2) Benefit Principle, and (3) Ability-to-pay Principle.

The Cost of Service Principle

This principle suggests that the cost incurred by the government in providing public goods to satisfy wants should be regarded as the basis of taxation.

Tax is payable as per the cost of public goods enjoyed by the citizens. This means that state is just like a producer of social goods and taxes are the prices for the same. The cost of service principle implies that every citizen should contribute to taxes the actual cost of public services by which he is benefited. Thus, taxes are paid as the costs of services rendered by the government. This notion was prevalent in medical times when everything was regarded as a payment for services rendered – justice, defence, administration, etc.

The principle has many shortcomings:

1. It is not so easy to estimate the cost of government service or social goods made available to each individual taxpayer. It is difficult to find any precise measurement of the costs and sharing of such costs in most of the indivisible public services such as defence, police, etc.
2. It is not in conformity with the definition of tax. A tax is not a price. Tax has no *quid pro quo*.
3. The principle seems to apply that the citizen is at liberty to refuse the public services offered to him and escape tax payment. It thus renders tax a voluntary and not a compulsory contribution to support the state.
4. It imposes undesirable limitations on the scope and scale of the public services. According to this principle, only those public services are justified for which the public is capable of bearing the cost. Hence, this theory, in effect, does not justify

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many social welfare programmes of the government such as, the relief works during famines or floods, free general education, free medial facilities to the poor, etc., because the beneficiaries of these being poor cannot afford to bear their costs. Thus, the socialistic goal cannot be avowed by the government under this principle.

5. It goes against the norms of welfare. If cost is the base of taxation, government cannot provide free education and medical care to the poor section.

The Benefit Principle

This principle suggests that the burden of taxes should be distributed among the taxpayers in relation to the benefits enjoyed by them from government services or social goods. This means those who get more benefits from public goods should pay more than others.

The benefit theory contains the value of service principle. It implies that every citizen should pay tax in proportion to the utility he derives from the public goods and services. Thus, those who receive more benefits or utility from social goods should pay more than others.

The benefits approach to taxation was very much in vogue during the 17th and 18th centuries. It rested on the individualistic conception of society and the social contract theory of the state. According to political theorists like Hobbes, Locke, Hume and Rousseau, protection to life and property of people was considered a fundamental objective of contract inherent in the formation of the state. Hence, taxes were to be regarded as the natural price to be paid for protection or for a membership fee in the association of organised society (the state).

Taxation is, thus, a price of the services rendered by the state. And the price is to be paid as per the services received. Similarly, tax is to be paid as per the benefit received.

Many of those earlier writer who advocated the benefit principles in terms of protection argued in favour of proportional taxation, for in their view, the protection is argued in favour of proportional taxation, for in their view, the need for protection was proportional to income and wealth. But some of the writers did not agree with this view. Rousseau and Sismondi, for instance, argued in favour of progressive taxation, as a wealthy person benefits more from state protection than the poor.

Adam Smith also advocated the benefit principle in enunciating the first maxim of taxation that: " The subjects of every state ought to contribute towards the support of the government, as merely as possible in proportion to their respective abilities; that is in proportion to the revenue which they, respectively, enjoy under the protection of the state".[1] It seems that Adam Smith proposes both ability and benefit approaches. But in Vol. V of his *Wealth of Nations*, he explicitly mentions that public expenditure should be allocated, wherever possible, according to the benefit of public services.

In the 19th century, however, thinkers like McCalloch and Theirs posed a narrow interpretation of the functions of the state. As such, the benefit theory has becomes an expression of bias against public expenditure. As Musgrave puts, it was argued that since taxes are a premium paid for protection, the public services should be confined to those

1. Adam S., The Wealth of Nations, p. 310.

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which serve protection. Ricardo considered public expenditure a wasteful phenomenon and endorsed that: "The very best of all plans of finance is to spend little".[2]

The benefit principle was revived and reformulated by continental writers, towards the end of the 19th century. Taxes were once again regarded as the price for public services. For the efficient allocation of resources, thus, it was thought that tax (*i.e.*, price of public services) should be determined in accordance with the benefits received. These theorists considered the revenue-expenditure process of government as a phenomenon of economic value and price, on par with the Walrasian system of general equilibrium.

The main difference between the classical and the new school of benefit approach is that while the former postulated that taxation is according to benefit as a standard of justice, the latter interprets the benefit principle, as a condition of equilibrium. In the new approach to benefit principle, the taxes are to be formulated in view of the voluntary tax shares contributed by each taxpayer on the basis of his own subjective evaluation of the benefit conferred by the public goods.

In essence, the refined version of benefit approach views the relationship between the government and the people as an exchange relationship (on *quid pro quo* basis) in a free market. In the view of de Viti de Marco, the famous Italian writer, under this sort of relationship, a citizen's duty to pay tax is matched by the duty of the state to provide for the social goods or public services. Marco assumes that each citizen consumes the social goods in production to his incomes. He, however, opines that taxation should be progressive, because the money is worth less to the rich man than to the poor, the former's marginal utility being lower. If proportionate tax is charged the rich are left with an 'undeserved' surplus. Therefore, the law of single or uniform price cannot be ruled in market for social goods or public services, and a progressive rate of tax is required.[3]

Lindahl's Solution of Just Taxation

The benefit doctrine was, however, more precisely formulated by Erik Lindahl. He has constructed a pure theoretical model of a partial equilibrium analysis under the assumption of voluntary exchange principle of a competitive market to solve the problem of equity in taxation. To him, the problem of equity, in fact, should be confined to the following aspects of public finance, namely:

(i) The determination of total amount of public expenditure and taxes causing social justice.

(ii) The allocation of total public expenditure among different public services so as to satisfy various social wants.

(iii) The allocation of taxes among different individuals in relation to their subjective evaluation of benefit derived by them from the public services.

In his solution to the problem, Lindahl seeks to apply the principle of voluntary exchange in the satisfaction of social wants, analogous to the pricing process in the market or private goods in satisfying the private wants.

Lindahl constructs a simple model which is based on the following assumptions:

2. Ricardo D., Principles of Political Energy, p. 159.
3. Musgrave R.A., *op. cit.*, p. 73.

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(i) The state has a democratic set-up.

(ii) There is one social good provided by the public authority.

(iii) There are two taxpayers, A and B who will enjoy the social goods so provided.

(iv) There is equal distribution of income between these two individuals, A and B.

(v) The production function of the social good is linear and homogeneous so that there is condition of constant costs.

Under these assumptions, Lindahl demonstrates simultaneous determination of tax sharing and the extent of provision of social good to these individuals.

Figure 3.1.1 illustrates such a Lindahl model of voluntary exchange principle of benefit approach.

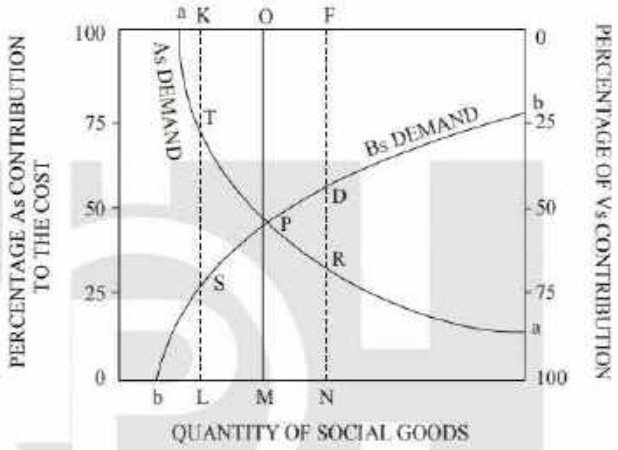

Fig. 3.1.1: Lindahl's Model

In Figure 3.1.1, the volume of social goods provided by the state measured along the horizontal axis. The left hand, side vertical axis measures the percentage of total cost. *A* is willing to share and the right hand side vertical axis measures that of *B*. The curve *aa* is *A*'s demand curve for social goods and the curve *bb* is *B*'s demand curve for social goods. There demand curves are drawn on the usual assumption of diminishing marginal utility. That is to say, an individual demands more of social goods only when he has to pay less price (i.e., tax*)*. Now suppose that initially *OL* units of social goods are provided by the state. To defray the costs of social goods thus, when voting is taken for their contribution, *A* is willing to bear *LT* percentage (nearly 75 per cent) and *B* is willing to share *KS* percentage (nearly 75 per cent). In this case, the total tax collection exceeds the costs. If now the tax is to be lessened just to cover up the actual cost of supplying *OL* amount of social goods both *A* and *B* would vote for a large quantity of social goods. In the process eventually, the equilibrium cost is attained when the state provides *OM* amount of social goods for which *A* is asked to contribute *PM* percentage share of cost, which he is also willing to bear and *B* is asked to contribute *PQ* percentage share of cost, which he is willing to bear. $PM + PQ = 100$ per cent of the cost. Thus, only at *OM* level of output the total cost of provision of the social goods would be just covered by the contribution through tax payments willingly made be just covered by the contributions through tax payments willingly made by both individuals *A* and *B* who enjoyed the benefits accordingly. The equilibrium or optimum amount of social goods (*OM*) is, thus, obtained by intersection of *aa* and *bb* curves.

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PM and *PQ* percentage shares of the cost are the optimum tax liability of *A* and *B* exactly equal to the benefits enjoyed by them. It is easy to see that for any amount in excess of *OM*, the combined cost shares that *A* and *B* are willing to bear fall short of 100 per cent. Say, if *ON* amount of social goods is provided, then, *A* is willing to contribute only *NR* percentage share of cost and *B* is willing to contribute only *FD*. *NR* + *FD* is obviously less than 100 per cent of the total cost by *DR*. Hence, the amount cannot be supplied by the supplied by the government. Thus, by a process of trail and error, the equilibrium amount *OM* may be reached.

In this way, the revenue-expenditure process for the satisfaction of social wants is determined by a competitive process like that of private goods market. Thus, the voluntary exchange variant of the benefits approach provides a tool by which the amount of public services and the contribution of the tax share might be simultaneously determined. It should be noted that Lindahl based this entire revenue-expenditure process in satisfying social wants under the assumption of a given proper state of distribution of income. Lindahl was concerned with the just and efficient allocation of tax burden and not with the distribution of income as such. Further, Lindahl's optimum solution complies with both the benefit and ability-to-pay principle. The benefit principle is satisfied as each taxpayer equates his marginal rates of substitution between goods supplied for the satisfaction of social and private wants with their respective price ratios, so that total utility derived from public services is maximised under the given state of proper distribution. The ability-to-pay principle is, on the other hand, also met with in Lindahl's analysis, as each taxpayer purchases social goods. At a different price, thus, having different individual demand schedules for the social goods, which reflect an individual's particular ability to pay. But Lindahl's analysis has missed the crux of the problem in the ability-to-pay doctrine in that it relates to the establishment of a just distribution rather than the pricing of social goods.

Musgrave, however, makes the following observations in the appraisal of Lindahl's model of voluntary exchange principle.

1. In essence, Lindahl's solution is analogous to Cournot's solution of duopoly in the Value Theory. A voting process implied in the model. However, need not lead to the optimal solutions; because it is unrealistic to assume that each voter disregards the effects of changes in quantity of social goods upon the price he is willing to pay for them. Once we take the effects of such changes into account, considerations of strategy will also follow. Then, the output and cost sharing problems are to be finally decided through a bargaining process, which depends on the bargaining skills – the ability to enforce one's own preference – of the two individuals. Thus, point *P* will be attained only if there is perfect knowledge to equal skill being present in negotiation of *A* and *B*. nevertheless, it is quite likely that negotiation may establish a position nearer to *P*, as each voter may be willing to reveal his preference somewhat truly, since in a two-person economy's model, it is apparent that each taxpayer would know that the other taxpayer has to bear the rest of the tax burden.

Anyway, the analogy of the Cournot solution of duopoly cannot be extended in the case of social wants and social goods. For, this analogy would imply that each voter assumes the other one's cost sharing to be constant and increase his share until a competitive position is reached. This, however, cannot be assumed here as each voter

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will not disregard the effects of changes in quantity of social goods upon his price. Thus, considerations of strategy do enter in this regard.[4]

2. Secondly, if we assume that there are many individuals in the model, then each taxpayer will think that his contribution or share has little impact on the actual supply of social goods; hence he may not reveal his true preference. That means, there is diversification about taxation and the provision of social goods in the public mind, which completely breaks down the assumptions of voluntary contribution in Lindahl's model. In fact, the preference for social goods will not be revealed because the exclusion principle cannot work in satisfying collective social wants. Each individual voter in order to escape taxation under this process of voluntary exchange principle in the provision of social goods will tend to understate his preference, when he knows that his will not affect the total supply of social goods but result in a smaller assessment on himself.[5]

3. Lastly, Lindahl's model disregards the effects of varying scale of production of social goods upon their prices, as it assumes constant cost conditions. This again is not a very realistic assumption.

Bowen's Model

Though less popular, but a better and simpler model of benefit principle has been presented by Bowen in his book *Toward Social Economy* published in 1948. Musgrave favours Bowen's model because it is more realistic as it assumes increasing cost conditions in the provision of social goods. Further, Bowen measured costs as opportunity costs. To him, the opportunity cost of a given unit of a social good is the amount of a social good foregone by the taxpayer.

Bowen's simple model is explained, assuming one social good and two individual taxpayers *A* and *B*, in the Figure 3.1.2 below.

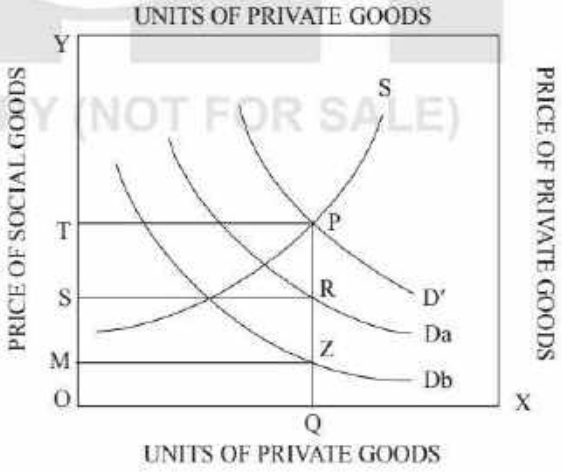

Fig. 3.1.2: Bowen's Model

In Figure 3.1.2, curve *Da* represents *A*'s demand for the social good. Curve *Db* represents *B*'s demand for the social good. Curve *D'* stands for the total demand for the social good, derived by the superimposition of *Da* on *Db*. S curve stands for the supply

4. *Ibid.*, p. 79.
5. *Ibid.*, p. 80.

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curve of the social good. Due to the increasing costs function, it has an upward slope. If the costs are measured as opportunity costs in terms of the amount of private good forgone, the *S* curve tends to represent the aggregate demand for private goods as well.

As equilibrium position is visualised at the point of intersection between *D'* and *S* curves. *P* is such a point. Hence, *OQ* is the equilibrium supply and demand for the social good, while *OX* is that of the private. Here, the total cost or total tax requirement in providing *OQ* amount of social good is *OQPT*.

The tax share of A and B for the provision of *OQ* amount of social good collectively enjoyed by both individuals is determined in accordance with their respective demand curves *Da* and *Db*. Thus, we have *OQRS* as *A*'s share and *OQZM* as *B*'s share. Apparently, $OQRS + OQZM = OQPT$.

An Assessment of the Benefit Approach

The meritorious points of the benefit theory of taxation have been recognised as under:

(i) It suggests that the benefits conferred by public service justify the imposition of taxes to pay for them.

(ii) It is a fullest approach as it combines both the income and expenditure sides of the budgeting process and thus determines simultaneously both the public services and the tax shares.

(iii) It links the provision of public services to the preference pattern of the individuals.

The benefit approach has, however, limited practical significance on account of the following objections raised against it:

1. It is based on a highly unrealistic assumption that varied and complex activities of the public authorities can and should be calculated and assessed against each individual in the society on the basis of personal benefits derived. The benefit approach thus fails to recognise that in reality benefits from public services cannot be divided into individual benefit shares, nor the aggregate social benefit can have an individual evaluation. Further, there is no standard to measure benefit to be conferred upon the people. Again there are not only direct but also indirect benefits of public spending which cannot be so immediately measured. Moreover, there are certain benefits which may accrue to the posterity rather than the present generation.

2. The benefit approach wrongly assumes that individual will readily reveal their preferences for social goods. As a matter of fact, no individual will voluntarily do so, when he knows that social goods are indivisible units. The benefit approach, thus, fails to recognise the basic difference between the nature of private and social wants, in that the latter is not subject to exclusion.

3. The benefit approach, as in the case of Lindahl's model, assumes an optimum distribution of income. But is does not state what constitutes an optimum distribution of income. To that extent the theory is incomplete. Moreover, the taxation based on benefit principle will not alter the distribution of income and wealth. Hence, the modern objective of redistribution of income and wealth through fiscal measures is not realised if this principle is accepted.

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4. As per this theory, tax has to be in proportion to the benefit, as such it does not conform to the precise meaning of a tax. In fact, a tax is defined as a compulsory contribution without any direct benefit, while in terms of this theory it becomes a voluntary contribution. The benefit principle, thus, really applies not to taxes but to other public charges like fees and special assessments, etc. which are levied in relation to the benefits devised.

5. The theory seems obsolete as in modern times the existence of a state is not on a "contract" basis. The modern state is a welfare state and it provides certain service for the general welfare. Hence, there is no *quid pro quo* basis in the exchanges of social goods.

6. A blind application of the benefit principle may cause great injustice rather than justice in taxation. For instance, the theory would require a pensioner to pay back his pension to the government in the form of a special tax (for the benefit of person received). Usually, it is poor people who get more welfare benefits of government expenditure but they have no ability to contribute to it. Adoption of this theory would, therefore, mean a formulation of a tax system of regressive nature, as it would impose a relatively heavier tax burden on the poor as against the rich sections of the community.

In conclusion, therefore, we may state that though the benefit principle might be high-sounding and an ideal one, taxes in practice cannot be allocated on the basis of benefit. Nevertheless, a limited application of this principle in certain taxes such as vehicles tax for financing improvements in roads is commendable.

The Ability-to-pay Principle of Equity in Taxation

In modern taxation, the ideal of justness or equity is endorsed by the principle of 'ability-to-pay.' This principle suggests that every person should be taxed according to his ability to pay. It implies that the broadest shoulders should bear the heaviest burden. That is, persons having greater ability to pay should be taxed heavier, while those with less ability should be taxed lighter, and those lacking any ability should be exempted. By ability to pay is obviously meant the economic conditions and liabilities of a person. The ability approach is, thus, based on the assumption that those who possess income or wealth, therefore, placed in better economic circumstances, should contribute to finance the public activities according to their relative abilities. On account of its tremendous appeal to the lower income groups, the ability-to-pay principle of taxation has been widely acclaimed.

Though both the benefit and ability approaches urge equity in taxation, the fundamental difference between the two is that while according to the former, equity demands that each individual should contribute in the form of tax as per the satisfaction derived from the social goods, thus suggesting *quid pro quo* exchange relationship between citizens and the state, the latter approach demands that individual should be required to pay compulsorily according to his ability to pay, without a *quid pro qro* benefit in return.

To measure ability, two approaches have been put forward by the economists: (*i*) the subjective approach and (*ii*) the objective approach.

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Subjective Approach to the Principle Ability

The subjective approach is confined to the psychological or mental attitude of the taxpayers. A taxpayer when he pays tax gives up a part of his real income or savings and thus, undergoes a sacrifice. The principle of ability, therefore, implies that equal sacrifice should be made by each taxpayer, then only can there be a just distribution of the tax burden.

According to C.M. Allan, the rationales of the ability-to-pay approach is that the payment of taxes involves the involves the individual in a loss of utility – a sacrifice. The greater the ability to pay, the smaller the sacrifice involved in the payment of a unit of taxation. A just system of taxation based on the ability-to-pay approach is defined as one where the sacrifices to utility by all taxpayers are equal. Vertical equity is served when all taxpayers bear an equal subjective burden of tax."

In this context, two approaches to the sacrifice principle are worth noting. These are: (i) Mill's theory to equal sacrifice and (ii) Edgeworth-Pigou's theory of least aggregate sacrifice. The former dealt with the objective of equity and distribute justice in taxation. The latter, however, confines itself to the welfare objective of public finance.

Mill's Theory of Equal Sacrifice

The equal sacrifice interpretation of ability principle was originally expounded by J.S. Mill. He stressed that the dictum that all should be treated equally under the law as well as in all affairs of government is a maxim of politics; it therefore, should be applied in taxation too. Hence, equality in taxation means equality in sacrifice. He contended, thus, that a just distribution of taxes would prevail when all will contribute to the common good so as to incur equal sacrifice.

According to the principle of sacrifice, thus, the direct money burden of taxation should be so distributed that the sacrifice or the loss of economic welfare to all the taxpayers is the same so that direct real burden on all taxpayers is equal. It follows thus that to fulfill the equity must be endeavoured by treating all taxpayers in a similar economic situation in equal manners, but simultaneously vertical equity should also be obtained by giving discriminatory treatment to the taxpayers under different economic circumstances. Equity in taxation, thus, requires that the relative sacrifice of each taxpayer must be the same.

As Musgrave puts, Mill's stress on equal subjective sacrifice gave the ability-to-pay principle a unique individualistic flavour. The subjective sacrifice which each individual bears can be measured as a function of the income he parts with as tax payments.

Concepts of Equal Sacrifice

The concept of "equal" sacrifice has been variously defined by the economists. At least, there are three interpretations of it: (*i*) equal total sacrifice, (*ii*) equal proportional sacrifice, and (*iii*) equal marginal sacrifice.

Equal total or absolute sacrifice implies that the total loss of utility (in parting with income) on account of tax should be equal for all taxpayers. In other words, from each taxpayer the same amount of total utility of income must be taxed.

To express symbolically thus:

Equal absolute sacrifice implies:

$\{U(Y) - U(Y - T)\}\ A = \{U(Y) - U(Y - T)\}\ B = \text{etc.}$

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Where, Y = income, T = amount of tax, U = total utility. (Thus, $U(Y)$ = Total utility obtained from income before tax: $U(Y - T)$ = total utility obtained from disposable income after tax payment). The subscripts A and B refer to different individuals.

The concept of absolute equal sacrifice, thus, suggests that different income groups are required to pay tax differently in such a way that the sacrifice by each individual is the same. The poor should, of course, pay less tax and the rich should pay more, but total sacrifice to both should be equal.

In a relative sense, however, this may imply a regressive tax. Suppose, a person with ₹ 50,000 income pays ₹ 5,000 as tax while a person with ₹ 20,000 of income pays ₹ 2,200 as tax and both make an equal total sacrifice of utility. But in terms of percentage, the former pays 5 per cent of his income while the latter pays 6 per cent. That means a relatively higher burden on the lower income group.

Equal Proportional Sacrifice suggests that the sacrifice or loss of income utility in tax payment should be proportional to the total income of each taxpayer. Thus,

$$\text{Equal Proportional Sacrifice} = \frac{\text{Sacrifice of } X}{\text{Total income of } X} = \frac{\text{Sacrifice of } Y}{\text{Total income of } Y} \text{ etc.}$$

In symbolic terms,

$$\text{Equal Proportional Sacrifice} = \left[\frac{U(Y) - U(Y - T)}{U(Y)}\right] B = \text{etc.}$$

According to the principle of proportional sacrifice, thus, the direct real burden on every taxpayer should be proportionate to the economic welfare which he derives from his income.

If the tax burden is imposed in this fashion, the relative position of each taxpayer's disposable income will remain unchanged.

Equal Marginal Sacrifice means that the marginal utility of income sacrificed by all the taxpayers should be the same. Thus, Marginal Sacrifice of A = Marginal Sacrifice of B, etc.

To express symbolically thus:

$$\text{Equal Marginal Sacrifice} = \frac{dU(Y - T)}{d(Y - T)} A = \frac{du(Y - T)}{d(Y - T)} B = \text{etc.}$$

Here, d stands for a unit change (*i.e.*, marginal).

Under this principle of equal marginal sacrifice, it is obvious that the person with a higher income will be expected to bear the most burden as the marginal utility of a higher income will be very low as compared to that of a low income. Thus, when the marginal sacrifice of each taxpayer (poor or rich) is equalised, the total or collective sacrifice of all taxpayers in the community as a whole will be the minimum than otherwise.

Musgrave's Utility Model

The precise meaning of these concepts of equal sacrifice has been graphically expressed by Musgrave as in Figure 3.1.3.

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Musgrave has constructed an income-utility model based on the following assumptions:

1. There are two individuals A and B. B is rich, A is poor. In the graph (Figure 3.1.3), A's incomes is OA, B's income is OB ($OB > OA$).
2. The income utility function: $U(Y) = f(Y)$ is an inverse function. Thus, marginal utility of income diminishes with a rise in income, while total income utility increases, but at a diminishing rate.
3. There is a subsistence level of income exempted from tax. Thus, meaningful utility is considered for the income above the subsistence level – OS. Hence, utilities for SA and SB income levels of the two individuals are measured and accordingly MU and TU curves have been drawn.
4. There are no disincentive effect of tax burden on the given income.
5. The Government's revenue requirement is fixed, as TB.

In terms of equal absolute sacrifice, total utility sacrificed by both the individuals must be the same. Thus, the rich (B) will be taxed KB and the poor (A) will be taxed GA, so that the total utilities sacrificed, $DM = EL$, being the same for both. Obviously, $KB > GA$, but $KB + GA = TB$.

In terms of equal proportional sacrifice, the rich has to pay NB amount, while the poor has to pay IA amount. It will be noticed that $NB > KB$ and $IA < GB$, so the rich individual pays more in this case and the poor pays relatively less. However, the proportion of utilities sacrificed by both is the same:

In terms of equal marginal sacrifice, both will be so taxed that their marginal utilities sacrificed are the same. Thus, the rich will pay QB, and the poor will pay QA as tax. Both have equal marginal sacrifice amounting to QR. Evidently, $QB > NB$, while $QA < IA$, which obviously means a relatively high progressive tax on the rich.

$$\frac{DP}{DC} = \frac{EH}{EF}$$

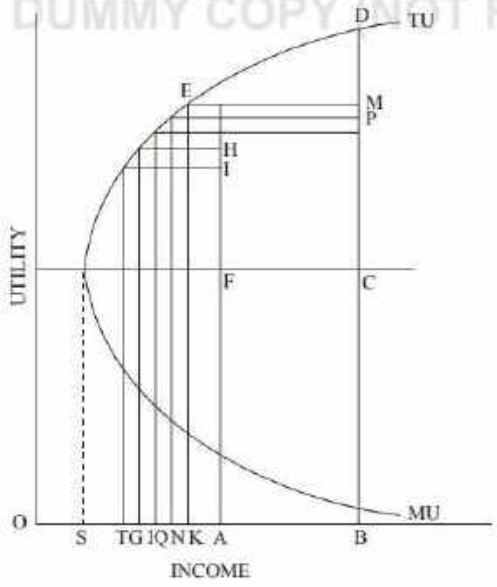

Fig. 3.1.3: Musgrave's Model

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One severe drawback of Musgrave's model is that it assumes interpersonal comparison of utility as well as the cardinal measurement of utility both of which have been rejected as being impracticable in the new welfare economics.

The Nature of Tax Structure Implied by the Sacrifice Criteria

Each of these variants of sacrifice naturally suggests a different tax formula.

1. On equal absolute sacrifice criterion, a progressive taxation is justified only if the marginal utility of income declines more than proportionately as income increases. But, if the rate of diminishing marginal utility of money is less than proportionate to the rise in income, regressive taxation is needed to have equal sacrifice. If the rate of decline is exactly proportionate, proportional taxation is required.

2. As per the equal proportional sacrifice criterion, a progressive tax structure results as the marginal utility of money diminishes (in any proportion) with the rise in income.

The minimum aggregate sacrifice principle obviously leads to a highly progressive tax structure, since marginal utility of money diminished and becomes very low as the income rises to a higher level. Equal marginal sacrifice implies, thus, as Pigou puts, "lopping of the tops of all incomes above the minimum incomes and leaving everybody, after taxation, with equal incomes."

TABLE 3.1.2

Criterion of Sacrifice	Nature of Tax Structure	Relative Tax Liability High Income	Low Income
1. Equal absolute sacrifice	Proportional taxation (or least progressiveness)	Less	More
2. Equal proportional sacrifice	Reasonably progressive taxation (relative progressiveness will be more than under the first criterion and less than under the last criterion)	More	Less
3. Equal marginal sacrifice	Steeply progressive taxation (with a fairly high level of tax exemption at lower income)	Maximum	Maximum

In short, the usual nature of tax structure and the relative tax liability under the different sacrifice criteria may be summarised as in Table 3.1.2.

Hence, the problem arises of choosing the best criterion of sacrifice. Adam Smith in his writings furnished an indefinite answer. While stating the canon of ability, he puts that "the subjects should contribute in proportion to their respective abilities; that is, in proportion to the revenue which they, respectively, enjoy. From this statement we can infer two meanings: (i) All people should contribute some fraction which is in proper relation to their incomes or (ii) All people should contribute the same fraction of their incomes. The first interpretation suggests the equal absolute sacrifice approach. The second interpretation, however, seems to favour the principle of equal proportional sacrifice. Adam Smith, however, categorically stressed the need for a progressive rather than a proportional rate schedule. On the other hand, though Mill advocated equal sacrifice principle, he did not explicitly define the concept.

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Even when the concepts of equal sacrifice were defined, the problem could not be solved by the later writers, as they widely differed on the merits of these concepts. For instance, writers like Cohen Stuart preferred equal proportional sacrifice criterion of taxation because it left the relative position of total utility of taxpayers unchanged. On the other hand, Marshall, Sidgwick, and other favoured the equal absolute sacrifice principle, while Edgeworth and Pigou discarded the absolute and proportional sacrifice criterion considering that there was no logical or intuitive choice between them. They advocated the principle of equal marginal sacrifice in taxation as it satisfied the welfare goal by least aggregate sacrifice.

Of these three versions, equal total sacrifice, equal proportional sacrifice and equal marginal sacrifice, the last one is regarded as the ultimate, best and generally accepted principle of taxation by modern economists. Equal marginal sacrifice advocates progressive taxation and is conducive to general welfare; hence, it is the best. Pigou argues that the least aggregate sacrifice is the best principle of tax distribution, because it is equitable and derived from the basic utilitarian principle of maximum welfare.

Edgeworth-Pigou's Theory of Least Aggregate Sacrifice

Emphasising the welfare of budgetary phenomenon, Edgeworth, Canon, Pigou and Dalton developed another sacrifice theory called the minimum or least aggregate sacrifice theory, which proposes that the sacrifice imposed (through taxation) on the community as a whole should be the least, Edgeworth and Pigou regarded minimum aggregate sacrifice as the superior principle of tax distribution, not on the basis of equity, but on the criterion of welfare, since it derives directly from the fundamental utilitarian principle of maximum welfare. According to Edgeworth, assuming a declining marginal income utility schedule, welfare is maximised by an equal distribution of income on the satisfaction of different wants; and at the same time, loss of welfare (due to sacrifice involved in parting with income in tax payment) should be minimised. Loss of general economic welfare is, thus, minimised when the taxes are imposed on the basis of equal marginal sacrifice. The least aggregate sacrifice theory is also designated as the equi-marginal sacrifice theory, for it suggests that is also designated as the equi-marginal sacrifice theory, for it suggests that if the marginal sacrifice on each taxpayer is equalised, the total sacrifice of the community as a whole is minimised.

Pigou regards the least aggregate sacrifice principle as 'the ultimate principle of taxation.' He favours the principle because the minimum aggregate sacrifice is the essential requisite for achieving maximum aggregate welfare, which in modern times is accepted as the right goal of government. In his view, a tax system based on equal marginal sacrifice involves looping off the tops of all incomes above the minimum income and leaving everybody, after taxation, with equal incomes which leads to the maximisation of welfare.[6]

Pigou states that in order to secure least aggregate sacrifice, the allocation of taxes should be such that the marginal disutility of the money experienced in tax payments is equal for all taxpayers.

He thus, distinguishes the least sacrifice theory from the equal sacrifice theory of Sidgwick and Marshall. He contends that "equal sacrifice among similar and similarly

6. *Ibid.*, p. 76.

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situated persons in an entirely different thing from equal sacrifice among all persons." The theory of equal sacrifice as a principle of equity has the fundamental drawback that it cannot ensure equal net satisfactions to all individuals. The equal net satisfaction to all is ensured only if everyone is so taxed that the marginal sacrifice is the same for all.

This theory thus suggests a progressive tax structure. The higher incomes will be taxed most and the lower incomes will be taxed least, as the marginal income utility is very low in the former case and it is very high in the latter case.

Pigou suggests that a tax system based on this criterion of equal marginal sacrifice will have the predominance of direct taxation. But it should be such that it does not adversely affect the willingness of the people to work and save as well as their capacity to work and save.

Limitations of the Subjective Approach

The subjective approach has the following limitations:

1. Sacrifice, being a subjective, introspective phenomenon, is immeasurable. Two person having the same income and other liabilities may not involve the same amount of sacrifice in the tax payment. In practice, then, it is very difficult to equalise the marginal sacrifice of all the taxpayers.

2. It is being subjective and utility or sacrifice in income cannot be easily measured in cardinal or numerical sense. It is also difficult to add up sacrifices of all individuals in such a way that the total sacrifice is a minimum, when the cardinal measurement of disutility is not possible.

3. It involves interpersonal comparison of utility which is also difficult.

4. Income utility differs as per the source of income. Income earned by hard labour has greater utility than income earned through wealth and property. This fact cannot be very precisely ascertained in all case, so also the sacrifice in all cases cannot be measure as the government cannot know from which income – whether labour earned or property earned, the tax - payers shall pay a general tax. If labour earned income is parted with in tax payment the sacrifice is greater than if property earned income is paid out. This poses a complex problem in interpersonal comparison of income utilities and disutilities in any society and makes it an impossible thing.

5. It is very difficult to measure the declining rate of marginal utility of income. Thus, the progression rates in taxation are arbitrarily fixed and cannot necessarily lead to equalisation of marginal sacrifice for all.

In short, the scope of application of this subjective principle of equity is very limited.

The Objective Approach of Ability-to-pay Principle: Faculty Theory

Realising the practical difficulties of subjective approach to sacrifice theory, professor Seligman has suggested an objective approach called "faculty theory of ability-to-pay."

The objective approach considers the money value of the taxable capacity of each taxpayer than his psychology of sacrifice and feelings. There are many indices to

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measure taxable capacity, such as income, wealth and property, consumption, etc. the term "faculty" means the native or acquired power of production which is indicated by income, accumulation of wealth, etc. Further, in measuring taxable capacity of an individual, various external forces such as how income is earned, how propensity is acquired, *i.e.*, whether through personal savings or inheritance etc., are considered along with the taxpayer's income and property.

It is interesting to note that under this approach three variants – Property, Income, and Consumption – have been suggested as an index of measuring ability of a person to pay.

In the Elizabethan period, property was an important basis of taxation. In those days, thus, general property tax was in vogue. In modern times, however, property cannot be a just index of a person's ability to pay. Seligman finds the following major defects in this regard:

1. A general property tax is regressive in nature as it rests more heavily upon smaller than upon large property.
2. It lacks universality as it fails to reach personal property. It is, thus, narrow in scope.
3. It lack in uniformity in assessment. In fact, the property tax gives much scope for difference of opinion regarding the valuation of different forms of property.
4. It may provide an incentive to dishonesty. "The general property tax is a premium or perjury and a penalty on integrity.

With the rejection of property as criterion, income was accepted as fair index of measuring one's ability to pay. In modern times, thus, income-tax is very popular, as it easily permits the use of progressive taxation. Income form all sources, property, investments, shares etc. is taken into account at the time of assessment. Further, due consideration of regularity, the time interval in receipts of income and the family circumstances (such as married, unmarried, with dependents or without etc.) should also be made. Further, the principle of progression, with due exemption limit at low income, is to be applied if income is the basis of taxation. The exemption limit is determined by the current standard as well as cost of living of the masses.

Prof. Kaldor, however, favours expenditure as the basis of taxation. In his opinion, a person's spending power, rather than income is the true index of his taxable capacity. Tax on income has the greatest disadvantage of weakening incentive to work and save. The expenditure tax is better from this point of view, as it will restrict spending and encourage savings and income. Further, it restrict the tax evasion activities which is common in income tax. The critics, however object to this criterion as it has regressive effect since the poor generally spend a large percentage of their income than the rich. Further, it does not comply with the canon of convenience. A large record of expenditures of the individuals will have to be maintained and checked. This is uneconomical too, as a large administrative machinery has to be employed. The Government of India has, perhaps for the same reason, abolished expenditure tax from the Indian tax structure in 1963 (which was imposed in 1958).

Of these three variants, property, income and expenditures, it is difficult to select an appropriate index of ability-to-pay, as each has its own merits and demerits. In a modern tax system, therefore, though income tax merits and demerits. In a modern tax system,

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therefore, though income tax is most common, property tax and expenditure tax (if we interpret commodity taxation as taxes on consumers' expenditure and firms' spending in buying of raw materials, power, factory building, etc.) are also incorporated.

3.1.7 THE MEANING AND SIGNIFICANCE OF THE CONCEPT OFTAXABLE CAPACITY

The concept of taxable capacity is essentially connected with the doctrine of ability to pay. Taxable capacity refers to "the maximum tax which might be collected from a particular taxpayer or a group of taxpayers." The term "taxable capacity" ordinarily refers to the maximum capacity of a community to bear taxes without much hardship.

It indicates that degree of taxation beyond which productive effort and efficiency as a whole begin to suffer. Taxable capacity is, thus, the maximum limit up to which people can normally pay taxes. Since the concept of taxable capacity is viewed in aggregative terms, we must measure the people's ability to pay as a whole, against the least adverse effects of taxation on their normal economic efforts and efficiency.

In recent times, the notion of taxable capacity has attained greater significance owing to increasing public expenditures and heavy budgets of welfare states. It sets the limit beyond which the government, without being dethroned in democracy, cannot tax the people. Taxable capacity is, thus, the ceiling of taxation. Taxation beyond the taxable capacity is over taxation. The policy of over taxation obviously is opposed not only to the true economic interests of a nation, but to the political stability of the government as well.

Thus, if taxable capacity is measured, it can serve as a valuable tool in setting the budget phenomenon. But, the main difficulty lies not only in measurement, but also in evolving a practical definition of taxable capacity. The question is not only of how to measure taxable capacity is a more difficult problem.

The knowledge of taxable capacity is, therefore, very important to a modern government. Information about taxable capacity is essential for the mobilisation of maximum economic resources for the purpose of economic development and planning at the hands of government. Further, by knowing the taxable limits, the government can refrain from imposing unduly high taxes which may prove irksome and cause resentment among the people. During war period, the concept has its unique utility as the government can know from the taxable capacity the maximum extent to which the people can be squeezed. Above all, the concept has greater significance in the federal finance. In federal finance, the knowledge of relative taxable capacity is very essential as comparison has to be made between different sections of contributors (the people of different states) for the just allocation of the burden of taxation as well as for the distribution of grants-in-aid.

3.1.8 DEFINITION OF TAXABLE CAPACITY

Despite its great importance in the modern public finance, the notion of taxable capacity, however, lacks precision. Dalton aptly remarks, "taxable capacity, is a common phrase, but a dim and confused conception." Numerous definitions of taxable capacity have been given by numerous writers. Findlay Shirras, the well-known authority on

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economics of public finance, defines taxable capacity as "the limit of squeezability," i.e., the extent to which the people of a country can be oppressed so as to make it to give money for the public revenue. According to Shirras, thus, whatever is produced over and above a minimum level of consumption to maintain the present level of living is regarded as the limit of squeezability or the taxable capacity, as we call it. Here, the minimum of consumption includes a minimum of subsistence for the people and an amount for the replacement of and an addition to capital for the purpose of industrial and commercial expansion.

Shirras' description of the taxable capacity in terms of squeezability is forceful and expressive, but is very vague. For, not only some nations will permit themselves to be squeezed much less than others; but, inside a nation also, the limit of squeezability will vary from person to person, and even if the taxable capacity of a person with a given income could be measured arithmetically, the aggregative figure cannot be so easily derived as the taxable capacity of a million persons would not necessarily be a million times as great; since the ability and willingness to work (i.e., to carry on economic activities) will be differently affected in the case of different persons. Further, in Shirras' definition, the phrases 'minimum of consumption' and 'an addition to capital for the purpose of industrial and commercial expansion' cannot also be given any precise and practicable connotations.

Another more usual definition of taxable capacity is that it is the maximum amount that can be deducted from a country's income, consistent with the maintenance of that income in years to come. It implies, thus, that there must be a minimum sum which must be left with the people in order to ensure their continued ability and willingness to work. But, the extent of this minimum and the nature of the goods on which it is expanded are very indefinite. Further, in defining taxable capacity, it is not desirable to lay down the condition that the income producing capacity of the country should remain the same at the existing level. In modern dynamic times, people expect their incomes to grow from year to year. Hence, in estimating the taxable capacity due allowance should be made for the growth of capital.

Sir D. Fraser, however, being more practical, puts that when the taxpayers are compelled to borrow money from the banks, to pay their due taxes, we should think that the limit of taxable capacity has reached. This means the savings of the taxpayer is the taxable capacity. But, here the difficulty is that if all savings are taxed, the saving habit will be discouraged. Further, it is difficult to judge individual savings in the absence of banking habits of the people.

All these definitions have been also criticised as they fail to consider the public expenditure side. Without consideration of the government's expenditure, its volume and character, to think of taxable capacity is meaningless. Taxable capacity can be extended considerably if the tax revenue is used by government to increase the productive power of the people, through constructions of social overheads and investments in human capital. Moreover, it is difficult to speak of taxable capacity when much of public finance (revenue, expenditure) takes the shape of price rearrangements. For example, wine may be taxed and wheat may be subsidised.

Prof. Musgrave, thus, suggests that instead of having a one-sided narrow concept of taxable capacity or the taxation potential of a country we must hold a broad view regarding the overall effects of the budget as a whole while deciding the optimal size of

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the budget. In his opinion, 'the very term taxable capacity invites bias.' For, it disregards the expenditure side completely and concentrates only on the taxation side of the budget. The bare idea of taxation potential, in fact, suggests an upper limit to the size of the public sector without due consideration to the need for a lower limit that is essential for encouraging the private sector in a modern economy. Musgrave, as such, suggests that the concept of taxable capacity should be replaced by the concept of optimal budget.

Further, there are two main limits to the taxable capacity of the nation, one applicable to normal times, and the other in times of emergency. In ordinary times it is necessary to make allowance for capital growth in the computation of taxable capacity. In times of war or other emergencies, however, there is some justification for excluding such considerations from the measurement of taxable capacity. During emergency periods, even the wider limits may have to be crossed. And, probably, on sentimental and patriotic grounds, the people would be willing to bear such a heavy burden of taxation. But, in practice, none of these limits can be clearly marked. During peace time, when a particular scale of taxation results in reduced revenue, it may be said that the taxable capacity has been reached and people are being overtaxed. The reduction in revenue, however, can also be independent of taxable capacity, the limits of which may not yet have been reached. It depends on the character of taxation and on the nature of the objects on which it is based. In normal times, it is very difficult to prescribe a taxable limit.

It is interesting to note in this context that Colin Clark has suggested for Britain and other countries, a safe upper limit of taxation at 25 per cent of national income. In his opinion, taxation in excess of this limit will lead to inflation and devaluation of the currency the following reasons:

1. Production slows down, when both employers and wage-earners are so heavily taxed that they begin to feel any further effort is hardly worth the while.
2. Unduly high taxation makes businessmen and professionals reckless in incurring expenses, particularly the most highly taxed who know that three quarters or more of any additional expenditure they incur will go into the Treasury. Therefore, they will spend extravagantly on travelling, entertainment, advertising, etc.
3. The persistence of very high taxation has adverse political consequences. Legislators generally regard inflation as a lesser evil than excessive taxation.

It is, however, difficult to accept 25 per cent of national income as the taxable limit in all cases for all countries. Further, Colin Clark has taken no account of public expenditure while prescribing this absolute limit. In an expanding economy, such a fixed limit not be appropriate also. Dalton, as such, rightly observes that it is well-nigh impossible to fix any specific sum or any definite proportion of the national a income of a country as its taxation potential at any given time.

In short, it may be concluded that the definitions of taxable capacity on the basis of only a statistically measurable factor, i.e., income, do not have much significance in modern pubic finance.

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3.1.9 ABSOLUTE AND RELATIVE TAXABLE CAPACITY

Dalton and Shirras make a distinction between absolute taxable capacity and relative taxable capacity. The former refers to the taxable capacity of the community as a whole while the latter refers to the taxable capacity of a particular section of the population as compared to that of another. For instance, the rich can bear a heavier tax burden as compared to the poor, therefore, relative taxable capacity is more.

All the above given definitions, in fact, refers to the absolute taxable capacity. It may means the limit of squeezability of a community or it may refer to whatever could be taken away by the state after allowing for the barest taxable capacity as the maximum amount which the citizens of a nation can contribute to public spending without having a really unhappy and downtrodden existence and without dislocating the economic organisation in any significant way.

To Dalton, this amounts to saying that the absolute taxable capacity refers to the limit to which a particular community can be taxed, without producing various unpleasant effects. When such unpleasant effects result from the operation of the tax system, it is possible to say that 'taxable' capacity has been exceeded in an absolute sense.

We should take into account the fact that all taxation has the unpleasant effect of reducing the taxpayer's real income in the first instance. However, must ambiguity arises between two extreme views in this regard, viz., (i) capacity to pay without suffering and (ii) capacity to pay regardless of suffering. In the former sense, taxable capacity will obviously be nil, except for the very rich. In the latter sense, however, it is limited only by the taxpayer's total resources. Dalton suggests that a mid-path between these two extremes is better. But it is difficult to illuminate it by more precise definition of the elusive concept of 'taxable capacity.'

In the absolute sense, the unpleasant effects of 'exceeding taxable capacity' signify a diminution of economic welfare. But it is futile to look only at the taxation aspect and to ignore the corresponding public expenditure, when appropriate public expenditure does increase welfare. Thus, how much public expenditure a community can 'afford', and hence how much taxation it can advantageously pay, obviously depends upon the character of the public expenditure. Absolute taxable capacity, therefore, lacks any practical validity since it involves its exact measurement, which is impossible. To Dalton, absolute taxable capacity is, thus, a myth.

Since absolute taxable capacity cannot be measured, Dalton stresses the relative taxable capacity as a reality. The same principle of ability to pay governing the distribution of tax burden can be extended, with the change of name into taxable capacity, to two or more communities sharing a common expenditure. If the common expenditure increases, the proportions paid by the richer contributors should increase and those paid by the poorer should diminish. That is to say, if two separate communities (say rich and poor) have to meet some common expenditure, it should be in proportion to their relative taxable capacities.

Relative taxable capacity, thus, may be expressed as the ratio of the taxable capacity of one unit to that of the other unit (the section of people or a community).

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In symbolic terms:

$$(TR)\,a = \frac{Ta}{Tb}; (TR)\,b = \frac{Tb}{Ta}$$

where,

TRa stands for the relative taxable capacity of '*a*' part of the community.

Ta stands for the taxable capacity of section '*a*' of community.

Tb stands for the taxable capacity of section '*b*' of the community.

To illustrate the point, if section *a*'s taxable capacity is 2 and that of *b*'s is 1, then while $(TR)a = 2$; while $(TR)b = ½$.

Musgrave speaks of relative taxable capacity in terms of sacrifice the community is able to sustain. He thinks that taxable capacity should, therefore, be related to per capita income. The greater the per capita and group incomes, the greater presumably is the relative taxable capacity or the ability to pay of a taxpayer.

In Dalton's opinion, there is no logical relation between relative and absolute taxable capacity. A section of people may contribute, in excess of its relative taxable capacity, to some common expenditure with other sections of people. But this does not necessarily imply that its absolute taxable capacity, according to any definition, is being exceeded. Likewise, its absolute taxable capacity (according to any definition) may be exceeded, but that does not necessarily mean that its relative taxable capacity is being exceeded in any of its common expenditures with other people. As a matter of fact, there cannot be any logical connection between the two, since relative capacity is a reality, whereas absolute taxable capacity is a mere myth.

But here, too, the problem remains of measuring the relative taxable capacity of a particular community. The relative taxable capacity of a community depends on numerous factors such as the share of national income, pattern of distribution of income, the relative size of the per capita income, the conventional standards of living of the community, the price level, the quality of public administration, the patriotism and the budgetary aims of the government, etc. Further, in the absence of statistical data about a community's income sources and consumption expenses on different items as reflected by family budgets, it is not possible to estimate correctly its relative taxable capacity.

Nevertheless, the concept of relative taxable capacity has greater practical use than the absolute taxable capacity. It indicates the relative burden of tax which should fall upon the different units of the economy. it is, thus, a criterion for the allocation of burden of taxes. Dalton, therefore, considers relative taxable capacity being the same as 'ability to pay.'

The notion of relative taxable capacity is, thus, very important in federal countries where different states have to contribute to the common expenditure of the nation.

3.1.10 DETERMINANTS OF TAXABLE CAPACITY

The taxable capacity of a nation is determined by a number of factors. The major factors are:

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1. Size of Income and Wealth of the Nation: The larger the income and wealth of a country, greater is its taxable capacity. A rich nation has definitely a higher taxable capacity as compared to a poor nation.

2. Distribution of National Income and Wealth: The taxable capacity largely depends on how the income and wealth are shared by the people. Paradoxically enough, taxable capacity will be greater if greater is the inequality of income and wealth in the country, since relative taxable capacity implies the ability to pay and save, which is greater in case of a few very rich persons than in the case of so many moderately well-to-do people. Further, when there is equality of income, everyone will have the same marginal income utility, hence the sacrifice will increase faster with progressive rates of taxation; therefore, a greater resistance will be caused against heavy taxation than otherwise.

It should not, however, be inferred that because inequality in income permits greater taxable capacity, economic inequality is justifiable in a modern state. Equal distribution is the major objective of a socialistic state. It reduces the need for greater taxation when the poor does not remain poor and hence public expenditure becomes limited as welfare goals are achieved with the equalisation of income and wealth in a mature economy.

3. Stability and Growth of Income: If the economy operates smoothly and progresses well, and ensures a stable and growing incomes, the taxable capacity of the community will be higher. But, if there are economic fluctuations with serious ups and downs, and especially during a depression, the taxable capacity will obviously be lower. It is a notable fact that the failure of monsoons in India adversely affect the land revenues accruing to the government as farmer's taxable capacity is obviously reduced considerably in such periods.

4. Size and Growth Rate of the Population: A high per capita income expresses a greater ability to pay. But, given the national income of a country, its per capita income depends on its population number. As such, a country like India, having a vast population with a galloping rate of growth, has a lower taxable capacity than a country having a small and constant population. As a rule when the national income grows faster than the population. As a rule when the national income grows faster than the population, the taxable capacity is increased. Therefore, a check on population growth is very essential for developing countries like India which have to expand their tax resources for developmental planning.

5. Standard of Living of the People: The standard of living determines the consumption pattern and habit of the community. A community accustomed to greater needs as satisfaction on account of a high standard of living cannot bear great sacrifice in paying taxes; hence, its taxable capacity will be less. But, if the standard of living is low, there is a greater surplus available for taxation, so that taxable capacity will be high. Further, the taxable capacity will increase with a rise in income, provided the standard of living remains unchanged.

6. Price Level: Taxable capacity depends on the surplus of money income over expenditure incurred to meet a given standard of living of the people. This, however, depends upon prices. If the price level is reasonably low and stable, a high income means greater taxable capacity. But, if prices are rising fast, a very high income may also pose a low taxable capacity in real terms.

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7. Characteristics of the Tax System: A tax system wider in scope has greater taxable capacity. The more comprehensive is the basis of a tax system, the higher will be the taxable capacity because of the higher surplus element embodies in the tax payment. For, when the tax system contains different types of taxes and presumably, the critical limit of each tax occurs at a different level, the taxable capacity of the country is automatically stretched further.

Thus, a multiple tax system has a greater advantage of enlarging the overall taxable capacity than a single tax system. This, however, does not mean that the tax system should be complicated by a bundle of taxes. The tax system must be simple as far as possible with some major taxes of high yielding power, which would increase the taxable capacity considerably. Further, the tax system must fulfill the canon of economy and convenience alike.

Thus, the kinds of taxes imposed and the manner of levying taxes too influence the taxable capacity of the country. Those taxes which cause no resentment or interfere the least with economic efforts permit a higher taxable capacity than those which constantly cause friction and damage. For instance, a very high corporate tax may prove to be disincentive in effect, so that not only further expansion in business may not take place, but also the current investment may be contracted to some extent, consequently, income generation and the taxable capacity in turn may be lowered down.

This point may be illustrated diagrammatically in Figure 3.1.4.

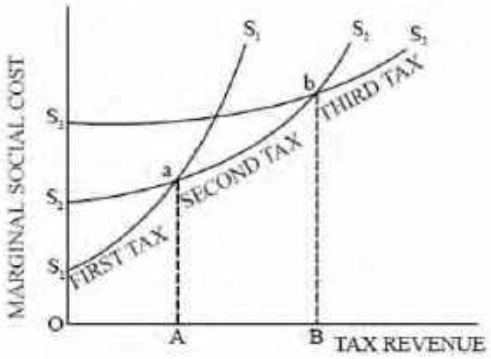

Fig. 3.1.4: Critical limits of different taxes

In Figure 3.1.4, the first tax involves relatively the lowest marginal social cost (or sacrifice). The second and the third taxes have greater marginal social sacrifice relatively. The government will, therefore, start by imposing the first tax to obtain revenues. However, when the first tax is extended for yielding a certain level of revenue, its marginal social costs will exceed those of the second tax. In the figure, the marginal social costs curve (S_1S_1) of the first tax intersects the marginal social cost curve (S_2S_2) of the second tax at point a. At this point, the first tax reaches its capacity. Hence, at the most the government should raise revenue up to OA through the first tax. If there is a need for more revenue, both the first and the second taxes have to be imposed. At the most AB additional revenue can be fetched by the second tax reasonably. The second tax reaches its capacity when the marginal social cost curve (S_2S_2) of the second tax intersects that of the third tax (S_3S_3) at point b. A further revenue is, thus, to be obtained by imposing the third tax, and so on.

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On the other hand, when the tax burden is equitably distributed, the taxable limit becomes wider than otherwise. Thus, it is better if taxes are raised on a wider base by taking a very large number of people placed in different economic and social conditions.

In short, an unscientific method of raising revenue may be less productive and rouse greater resentment causing less taxable capacity than a well-oriented tax system in which the irksomeness to pay is reduced to the maximum.

8. Nature and Purpose of Public Expenditure: The limit of taxable capacity is relative to the purpose for which the proceeds of taxation are expended. If public expenditure is largely used for developmental schemes, the productive power of the country improves and, thus, the taxable capacity enlarges. But extravagant non-developmental public expenditure in effect tends to reduce the taxable capacity of the community. Taxable intended for financing capital formation is, therefore, quite justified, as it raises the taxable capacity in effect. But public expenditure on unnecessary wars, or maintenance of unproductive projects, etc. which cause reduction in income and welfare of the people, tends to reduce the taxable capacity further.

9. Political Conditions: A representative democratic from of government will win the sympathy and co-operation of the people in realising public revenues through taxes, etc.; thus the taxable capacity would be much higher in a democratic state than in a monarchy or an oppressive dictatorial form of government. Further, an efficient and honest administration of the government and the maintenance of law and order is also very essential for improving the taxable capacity. When people appreciate the government, they will be willing to undergo many hardships and bear heavier taxes to in order to enable the government to undertake welfare measures beneficial to the common people; hence, the taxable potential automatically expands. An extravagantly lavish government, in effect, obviously, reduces the taxable capacity of the nation. If, however, a government adopts harmful political and economic policies and becomes unpopular, its taxable capacity is thereby reduced.

10. Psychology of the People: In determining the taxable capacity, psychology also plays an important role. People will be patriotic only towards national government but not to the invaders. In the former case, the willful taxable capacity is obviously greater than under the threat of the latter.

Similarly, the taxable capacity of the nation would be greater in war times when the people are ready to bear burden on sentimental and patriotic grounds.

In normal times also, the phases of economic cycles affect the general psychology of the people. During prosperity, people in general are optimistic and have greater taxable capacity. But, in a depression when the wave of pessimism prevails, taxable limit is minimum. Of course, here much depends upon the aim and nature of fiscal policies and measures adopted by the government. For instance, in times of depression, the government may spend large sums on boosting employment and this expenditure may be met out by taxation, to a certain extent, which, however, may expand the taxable capacity.

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3.1.11 MEASUREMENT OF TAXABLE CAPACITY

Since the taxable capacity in a more practical sense is viewed as a relative concept, varying from country to country, no mathematical formula can be evolved to measure it. Hence, no precise limit of taxation can be laid down. By and large, however, it can be said that the taxable capacity depends upon national dividend or national income. National dividend refers to the flow of goods and services produced during the year.

Using the national dividend criterion, there are thus two methods generally used for the statistical measurement of the taxable capacity. These are: (i) the personal aggregate income method, and (ii) the product method. The former analyses incomes of individuals based on the income tax returns supplemented by statistics of death duties and other direct taxes. This method is adopted in the UK. According to the second method, however, the various parts of the aggregate produce are added up to determine the taxable capacity of a country. Since, in India, the income tax does not apply to agricultural income, the product method has been adopted to test the taxable capacity of the people. It can be commonly, as well as empirically, observed that the Indian people on account of their great poverty, possess the least potential taxable capacity in the world. Further, taxable capacity in India varies between a good year and a bad year, because Indian economy largely depends upon agriculture, which is a gamble in monsoons.

3.1.12 TAXABLE CAPACITY OF INDIA

In a developing economy like India, taxation is regarded as a means to raise domestic savings — the economic surplus — by coercion, which can be utilised for capital formation through public investment for the economic plans of the country. As an impact of planning in our country, thus, many new taxes have been imposed by the governments (union as well as states) from time to time. Today, the tax revenue obtained by the government is ten times more than what it was in the pre-planning era. Further, from time to time, the size of Indian plans has been expanded. The Eighth Plan is amounting to over 1,80,000 crores of rupees. As such, the question sources, taxation is the traditional and most important source of financing the Plan. The Planning Commission also stresses on increasing the tax resources for future development. Hence, the question arises, whether India has that much tax potentiality. It is a general feeling that India is the most highly taxed nation in the world, both as regards direct and indirect taxation. In the circumstances, one may be inclined to conclude that India has reached the saturation point, and there remains little scope for further taxation. This conclusion, however, is erroneous, biased, partial and one-sided. It has been inferred with a short-sightedness and without a proper consideration of the real tax potentiality of the country. The taxation potential of any country depends on a number of factors such as: (i) real per capita income, (ii) the degree of inequality in the distribution of income and wealth, (iii) the kinds and effects of various taxes, (iv) the impact of public expenditure on economic growth, distribution of income, etc., (v) the readiness for sacrifice of the people, (iv) the administrative competence of the tax collecting machinery, etc.

Examining the Indian conditions in this regard, we find that from per capita income point of view, the scope, *prima facie*, appears to be very limited for any further squeeze by increase in taxation. There is no much improvement in the real per capita income since 1960. The per capita real income of the country was ₹ 1,469 in the year

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1960-61. It amounted to ₹ 1,830 at the 1980-81 price level. It went up to ₹ 2,558 in 1990-91 and ₹ 2,570 in 1991-92. Thus, from per capita income point of view, taxable capacity of the Indian community appears to be very limited. But, that does not really mean that the present taxation level has reached the ceiling of ability-to-pay. The hidden taxation potential of our economy is comparatively wide. In India, as in most of the less developed countries, the aggregate tax-income ratio (t/y) is hardly 10 per cent, while in advanced countries like UK, Germany, etc., it is between 25 per cent and 40 per cent. Thus, from an international standard point of view, India is far behind with regards to the tax income ratio. That means, India has not exploited its tax potential to any great extent. There is enough scope for enhancing the tax yields by deepening and broadening the tax system, through rationalisation of tax rates and reorganisation of tax structure along with the appropriate toning of the tax administration. Excessively progressive direct personal taxes encourage tax evasion, while corporate taxes discourage production and investment. Thus, a reasonable tax rate is essential to provide a greater incentive to pay taxes. In the recent budgets of 1991-92 and 1992-93, the government has taken steps in this direction by tapering off the rates of income tax, but they are not very effective. Moreover, in India, income from agriculture has been exempted from the income tax. Prof. Kaldor observes that it is the taxation of agricultural sector that has a crucial role to play in accelerating economic development of poor countries like India. Especially, farmers producing cash crops should not be allowed to escape taxation.

Moreover, the tax administration in the country is inefficient, inadequate and corrupt. As Professor Kaldor opines, a less developed country collects in direct taxation not more than 1/5th or 1/10th of what it normally could have collected under an efficient tax administrative machinery. Thus, by removing laxity in tax administration and making it more competent, greater tax yields can be realised.

In short, by broad-basing income tax, the Government of India can hope to improve its tax receipts.

Further, India has a low per capita income, but due to the high degree of inequality, it has a high ratio of property income to total income, so that a larger share of national income is pocketed by a few rich individuals. Consequently, the country has a relatively high degree of taxation potential.

Moreover, the Indian tax system has to be designed in such manner that the gap of inequality of income is reduced. For this, direct taxes of high progression are to be imposed which will fetch increased tax revenue to the government. Again, improved distribution of income as a result of welfare measures under public spendings in turn would tend to enhance the real income of the masses, which in effect provides scope for the broadening of commodity taxation. However, non-essential goods may be taxed at a higher rate, but necessaries and essential raw materials must be exempted from excise, so that production and profits may rise. The government then can fetch more revenue by taxing high profit yields in corporate taxation.

Nearly one-third of Indian economy is under non-monetised sector. And two-thirds of the rural subsistence sector involve barter exchange. In the Indian fiscal policy, resort to deficit financing, it is assumed, may lead to a break-up of the non-monetised sector. In fact, by the extension of banking facilities, spread of general education and better communications, the use of money can be more popularised which will lead to the development of these areas, which in turn will provide enough scope for the tax revenue

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through commodity taxation like sales tax, excise duties, etc. This means, at present, a high degree of taxable capacity is disguised in the subsistence and non-monetised rural sectors of the Indian economy.

Furthermore, India has wide scope to enlarge its international trade in the course of its rapid economic development under its Plans, and as such, there is immense scope for tax revenue through customs duties.

Because of the welfare objectives underlying the public spending programmes of the Government of India, there is a positive correlation between taxation and benefits to the community, tending to promote the willingness of the taxpayers to undergo greater sacrifice for the sake of well being in future. Indeed, when the tax proceeds are used increasingly for welfare purposes and acceleration of economic progress, the taxation potential of the country must improve.

To sum up, we reproduced below the remarks made by the Taxation Enquiry Commission two decades ago and which hold good even today: "Indian taxation on the basis of its existing structure and rates has not fully tapped the taxable resources of the country. When this is taken in conjunction with the vast need for additional resources, it is clear that there is justification for some increase in taxation."

3.1.13 JOSEPH-HICKS' THESIS

Following Musgrave and other modern economists, we may compare between direct and indirect taxes in view of the allocative effect, administrative costs and distributive effect, built-in flexibility and growth-orientation as follows:

Allocative Effect

It has been observed that the allocative effects of direct taxes are superior to those of indirect taxes. if a particular amount is raised through a direct tax like income tax it would imply a lesser burden than the same amount raised through an indirect tax like excise duty. This is because an indirect tax involves an excess burden since it distorts the scale of preference due to the price changes caused by its imposition. Thus, an indirect tax has a greater adverse effect on the allocation of resources than a direct tax has.

It has been regarded that the sacrifice of economic welfare involved in paying a given sum of direct tax such as income tax will be relatively less than in that of the same amount of an indirect tax like excise duty. Further, indirect or commodity taxation distorts consumer's preference regarding goods, hence imposes an excess real burden, in terms of sacrifice involved, upon the taxpayer. Direct taxes have no such distorting effect.

Using the technique of indifference curve, Professor Hicks and Miss Joseph have successfully demonstrated this excess burden thesis as shown in Figure 3.1.5.

In Figure 3.1.5, X-axis measures a commodity X. Y-axis represents commodity Y or income of the individual. The original price line is AB. The consumer's given money income is, thus, OA. Pre-tax equilibrium of the consumer is at point P, where the price line AB is tangent to the indifference curve IC_3, which is the highest possible level of satisfaction attainable under the given situation. Thus, the consumer has ON of commodity X and OM of Y or income.

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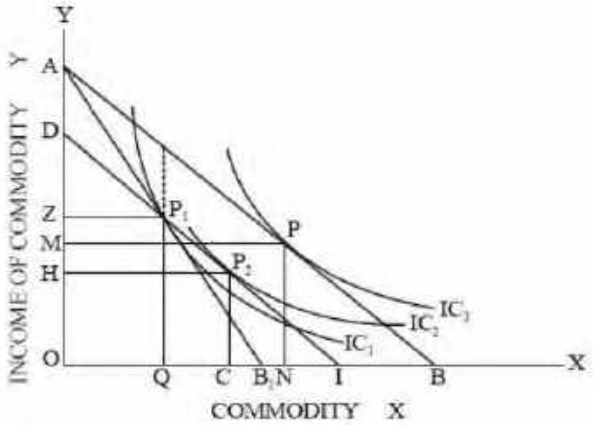

Fig. 3.1.5: Hicks-Joseph Model

When a tax is imposed, the aim is to minimise the consumer's sacrifice as far as possible.

Now, suppose an ad valorem excise duty is levied by the government on commodity X. as a result, the price of good X rises say from OA/OB to OA/OB_1. Hence, we have a new price line AB_1. The new equilibrium point P_1 is then reached by the individual, so that he is placed on the indifference curve IC_1. He buys OQ of X and has OZ of Y or income. He pays P_1T amount as tax.

Now, let us see what happens if the same amount of tax P_1T is raised through income tax (the direct tax). Thus, $AD = P_1T$. So, after paying income tax, the line of disposable income will be drawn as D_1. It is parallel to AB and passing through point P. the new equilibrium point, however, will be set at P_2. Under the convexity assumptions obviously, from the consumer's point of view, P_2 is preferable to P_1, though P_1 is also available as before. This is because, at P_2 a higher indifference curve IC_2 is derived. So the consumer would be better off. The consumer thus buys OC of X and has OH of Y or income.

It thus, follows that the sacrifice of satisfaction or disutility in the case of indirect tax is greater than the direct tax of equal amount. It fact, the income tax is favoured against an excise duty by the individual because the former does not force any reorganisation of this choice while the latter tends to distort his preference and thereby makes him relatively worse off in terms of economic welfare.

The critics, however, argue that this purely theoretical case against indirect taxation is an illusion. A question has been raised: does a move to a higher indifference curve really means that the consumer is better off? D. Walker points out that here we have just assumed that the consumer feels himself better off when taxed directly rather than indirectly. This, however, need not be so. On the contrary, it is likely that the consumer may be worse off despite moving to a higher indifference curve. This can be understood from Pigou's conception of economic welfare and total welfare. Pigou has rightly visualised that the economic welfare and the total welfare need not always go in the same direction. When a person does not like to pay any tax, his real loss in total in total welfare cannot be just compensated by the fact that his loss of economic surplus is less in paying income tax than in excise duty. As such, looking to the total welfare criterion, the

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theoretical inference drawn under the indifference curve analysis appears to be wrong or illusionary.

3.1.14 TAXATION AS AN INSTRUMENT OF SOCIO-ECONOMIC CHANGE

In a developing country, the prime objective of a taxation scheme is to provide sufficient resources/funds in the hands of the government to carry out its functions towards rapid economic development through planned process, and programming for the fulfillment of objectives and social obligations such as alleviation of poverty, upliftment of the standard of living of the poor masses, reduction in the gap of economic inequalities — thus, to provide growth with social justice. Both direct and indirect taxes have to contribute to this task. This is because, among various sources of public revenue, taxation is regarded as the most reliable, legitimate and democratic means of raising revenues. Ostensibly, both direct and indirect taxation should serve to realise: *(a)* Mobilisation and allocation of resources in favour of public sector in a mixed economy; *(b)* Promotion of capital formation; *(c)* Maintenance of reasonable economic stability; and *(d)* Deduction of the gap of economic inequalities—in the distribution of incomes and wealth. As such, the government budgets should see to improve tax revenue as a ratio of GNP. The composition of taxation—direct and indirect taxes—should be designed to subserve this end.

Significance of Direct Taxes

It is widely held that direct taxes are preferable to indirect taxes. In advanced countries, direct taxes account for the major part of aggregate tax revenue. In the United States of America, for instance, more than 90 per cent of total tax yield is obtained through direct taxes. In Japan, over 70 per cent of aggregate tax revenue is contributed by direct taxes. The UK derives over 60 per cent of total tax revenue through direct taxes. In developing countries, however, direct taxation has played much smaller role in contribution its share in the total tax revenue. In most of these countries including India, on an average less than 25 per cent of total tax revenue is accounted by the direct taxes.

Reviewing the tax structure in terms of direct and indirect taxation in the Indian economy during the planning era, we come across a paradoxical situation in the context of our fiscal objectives and operation of the budgetary policy. Since the inception of the planning era in 1951, the government has been stressing the social objective of reducing the disparities in income and wealth, and the positive role of direct taxation is emphasised time to time by making it more progressive. Yet, the trend reveals, in practice, diminishing importance of direct taxes in the growth of tax revenue over the years. In 1950-51, direct taxation contributed to 35 per cent of total revenue of the centre, states and local governments; in 1960-61 its share declined to 29 per cent and further to 14 per cent in 1989-90. In relative terms, measuring tax revenue as per cent of GNP, it is found that direct tax revenue-GNP ratio has remained steady at 2.5 per cent with marginal variations over the years during 1951-90. See Table 3.1.3 for further details.

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TABLE 3.1.3: DIRECT, INDIRECT AND TOTAL TAX REVENUE: 1950-51 TO 1989-90 (CENTRE, STATES AND LOCAL BODIES)

Year	Tax Revenue (₹ in Crores)			Tax Revenue as Percentage of GNP		
	Direct	Indirect	Total	Direct	Indirect	Total
1	2	3	4	5	6	7
1950-51	231 (35)	428 (65)	659 (100)	2.5	4.6	7.1
1955-56	255	558 (31)	813 (69)	2.5 (100)	5.4	7.9
1960-61	420	1,040 (29)	1,460 (71)	2.6 (100)	6.4	9.1
1965-66	775	2,273 (25)	3,048 (75)	3.0 (100)	8.7	11.7
1970-71	1,091	3,864 (22)	4,995 (78)	2.5 (100)	9.0	11.5
1975-76	2,643	8,834 (23)	11,477 (77)	3.4 (100)	11.3	14.6
1980-81	3,575	16,746 (18)	20,321 (82)	2.6 (100)	12.3	14.9
1985-86	6,574	36,987 (15)	43,561 (58)	2.5 (100)	14.2	16.7
1989-90	11,051	86,145 (14)	77,196 (86)	2.5 (100)	15.0	17.5

On the whole, it is seen that the total tax revenue as percentage of GNP has sizeable increase over the years, from 10.1 per cent in 1950-51 to 17.5 per cent in 1989-90. This growth is largely attributed to increase the share contribution of indirect taxes from 4.6 per cent of GNP of 15 per cent of GNP during this period.

The basic reason for the relatively smaller role of direct taxation in India lies in narrow base or limited coverage of income tax, wealth tax and other direct taxes. Indian income tax, for instance, applied only to non-agricultural incomes which covers hardly less than 1 per cent of the total population. This is much low as compared to other countries. In the USA, for instance, over 60 per cent of the population is income taxpayers. In the UK nearly 40 per cent of the population pays income tax. During 1990-91, income tax revenue in India amounted to ₹ 5,371 crores which constituted merely 1.6 per cent of non-agricultural income, whereas the gross domestic product from non-agricultural sectors accounted to 70 per cent of total GDP.

With the progress of economy, however, it is desirable that the contribution of direct taxes in the government revenue should rise. That is to say, direct taxes must be income-elastic in character. The following reasons may be listed in support of the gradual increase in direct taxes in the developing countries.

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1. Reducing Inequalities: Direct taxes on account of their progressiveness will serve as a means to reduce inequalities of income and wealth which is an important egalitarian goal of any welfare state.

2. Restricting Conspicuous Consumption: Direct taxes, by causing a reduction in the disposable income of the rich section, will tend to check their high marginal propensity to import and restrict their conspicuous consumption.

3. Mobilisation of Resources: Direct taxes will mop up economic surplus from the community and make it available to the government to carry on its capital formation process under planning.

4. Anti-inflationary: Direct taxes will help in arresting inflation by scissoring the excessive purchasing power of the community.

5. Equitability: Direct taxes will lead to equity in distribution of tax burden, as they conform to the ability-to-pay principle.

6. Built-in flexibility: Direct taxes can be made income-elastic with an appropriate tax structure, so they can serve as an instrument of build-in flexibility in budget. Thus, as an economic stabiliser, their role should not be underestimated in the developing economy.

Significance of Indirect Taxes

In advanced countries, indirect taxes have relatively less significance in their tax structure. On an average, indirect taxes in these countries account for less than 40 per cent of total revenue. In developed countries, the purpose of indirect tax is to catch the general public within the tax net. In effect, thus the structure of indirect taxation with regressive implications is set up as a balancing factor against the progressive effect or direct taxation in the community. In the less developed countries, however, indirect taxation constitutes the mainstay of public revenue. In most of these countries, on an average more than 70 per cent of tax revenue is collected through commodity taxation.

Data in Table 3.1.8 reveal a rising tread of tax revenue through increasing share of indirect taxation in India from 65 per cent in 1950-51 to 86 per cent in 1989-90. Indirect tax revenue as percentage of GNP rose from 4.6 to 15 during this period.

A less developed country like has a very low per capita income as well as a wide gap of inequalities of income and wealth. The relatively rich section of the community is very small, while the masses are poor. In view of the limited scope for direct taxes, thus, a poor country like India has no alternative but to resort to indirect taxes for tapping more resources required for the developmental planning programmes.

As Dr. Chelliah puts, the structure of indirect taxation in less developed countries has to be designed with the same objectives as direct taxation in advanced countries. In specific terms, indirect taxes, in these countries should be confined to the following objectives:

1. Broadening Tax Base: To broaden the tax net, so as to reach the masses who are exempt from direct tax liabilities such a income tax. Thus, by broadening the tax net, the objective is to raise resources for increased public spendings.

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2. Check on Consumption: To curb, the high marginal propensity to consumer and enhance the marginal propensity to save of the community at large. Basically, commodity taxes must be devised to check potential increase in consumption rather than to curtail the existing consumption level of the masses.

3. Minimisation on Resources: To minimise the inequalities in the standard of consumption and luxuries meant for the rich classes, at a highly progressive rate and subsidising the essential goods meant for the poor sections of the community.

4. Mobilisation on Resources: To assist in capital formation and economic development. The main purpose of commodity taxation in a poor country is to promote real savings by curbing the increase in consumption from the rising income resulting from an increase in public investments. When the saving is so realised, resources will be revealed for further capital formation which is the key to rapid economic development. Thus, as Dr. Chelliah puts, "the role of mass commodity taxation is not to raise the rate of investment at any given moment; it is to prevent consumption from rising as much as income rises as a result of past investment"

Since the poor sections of a community has a high marginal propensity to consume when their income rises they tend to spend more on consumption. If the rise in aggregate consumption level is allowed, then the increase in productivity under public investment is fully absorbed by the increased consumption. By restraining consumption, the increased productivity will be made available for investment in capital goods industries.

Hence, it may be cautioned that articles of luxuries and comforts need only be taxed to curb their consumption, but necessaries of mass consumption should not be taxed as far as possible. Necessaries may be taxed only when there is a net increase in the per capita output of such goods. However, necessaries should never be taxed at high rates. In fact, the Taxation Enquiry Commission in India also suggested that articles of mass consumption may be taxed at lower rates to make the taxation broadbased; however, semi-luxuries and luxuries should be taxed at fairly substantial rates. If this is done, the regressiveness of indirect taxation will be minimised.

In short, indirect taxes aim at raising the incremental saving ratio in a developing economy which would help the process of capital formation and acceleration of growth.

5. Diversification of Resources: To effectuate a purposeful diversification of resources. Indirect taxes can be regarded as a useful measure for the transfer of purchasing power from consumers' class to the government who will make effective use of these resources for capital formation and welfare-motivated public spendings. Again, differential commodity taxation may cause a transfer of resources from nonessential to essential goods when the former are heavily taxed.

6. Protection: To provide protection to the domestic industries, import duties are usually devised for this purpose in developing economies. India, for instance, has imposed heavy import duties on many items with the object of encouraging the production of import substitutes and protecting the growing domestic industries from cut-throat foreign competition and also to conserve valuable foreign exchange reserves by curbing the propensity to import.

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7. Corrective Measure for BOP Equilibrium: To help in correcting the disequilibrium in the balance of payments. Import duties are as such designed to curtail imports, thereby, thereby to improve the position of the balance of trade of the country.

Thus, the consideration of protective and equilibrium effects of import duties is more significant than their revenue effect in a developing economy like India.

On the issue of indirect taxation in developing countries, the UNCTAD secretariat, however, points out that when the degree of inequalities of income is not so high in a country, indirect taxation will contain equity or justice in the distribution of tax burden, but if the problem of inequality is serious, indirect taxes prove to be less equitable and more regressive in effect. Again, the impact of indirect taxes on costs and price sometimes may prove to be inflationary. Indian is a living example in this regard. In recent years, multi-stage sales tax and excise duties have been imposed on many industrial raw materials and finished goods, so that their prices have risen very high which has belied the hopes of improvement in the standard of living of the masses.

3.1.15 COMPLIMENTARY ASPECT OF DIRECT AND INDIRECT TAXES

Both the types of taxation are necessary in order to frame the tax structure most equitably with productivity and efficiency, because one type of taxation mitigates the defects of another. If only direct taxes are levied, the tax burden will lie on one group of taxpayers; the other exempted group or the tax evading group in the community as such escapes from any sacrifice. Therefore, to distribute the tax burden equitably indirect taxation is needed. The poor income group which is exempted from direct taxes may be taxed lightly through indirect taxation by taxing the essential goods at lower rates. Similarly, when the tax-evaders spend their concealed income on luxuries, they are caught in the tax net when luxury items are heavily taxed. Again, income of many people changes with time gaps, and it is very difficult to assess them at every short-time interval. This shortcoming is, however, overcome by the imposition of commodity taxes, as consumption outlay also changes with income, so tax is immediately realised from the increased income through indirect taxes. Further, some people may think of spending more to escape from wealth tax by not converting their saving into wealth. Such people will be caught in the net of commodity taxation. However, the scope of commodity taxes is limited, because their realisation depends on the consumer's spendings. Therefore, the wealth accumulated by a person in existing economic equilibrium is greatly disturbed when only direct taxes are levied. Because, the emergence of frictional forces involved in direct taxes such as tax evasion, tax capitalisation, diffusion of tax, etc., are accentuated as the taxpayers become more cautious about taxes. Indirect taxes, however, tend to minimise these frictions, because these taxes are never directly felt, so their psychological impact is less. Again, in paying commodity taxes, land, buildings, jewelleries, etc., may escape indirect taxation. To remove this drawback, direct taxes like property tax or wealth tax may be levied.

Moreover, the system of indirect taxes, apart from being complementary to direct taxation, helps in reducing the frictional forces involved in the assessment of incomes and the collection of direct axes. The consumers also get the benefit of consumption of commodities; thus, the satisfaction so derived mitigates the disutility contained in the tax

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payment. Further, in indirect taxation there is less chance of evading tax, since a consumer cannot postpone his want of a commodity indefinitely in order to escape taxation. In the normal course, however, he would be willing to pay the tax gladly to get the goods and satisfy his desire, rather than suppress it, because he finds that his sacrifice in foregoing the consumption of goods will be more than the disutility involved in the payment of tax. Furthermore, unlike direct taxes, the burden of an indirect tax is never fully felt by the taxpayers as it is paid bit by bit in every consumption spending.

Above all, in commodity taxation, the tax administrators do not have to bother about correct assessment of the income and wealth of taxpayers, hence there is the least possibility of any bitterness or ill-feeling between taxpayers and the government.

Concluding Remarks

All modern writers unanimously opine that, direct and indirect taxes under modern public finance are complementary and not conflicting with each other. With the growing scope and need for increased public expenditure adequate public revenue cannot be obtained either through direct taxes or through indirect taxes alone. The exchequer has to resort to both kinds of taxes, direct and indirect.

It is desirable to apparise and to tax all categories and all parts of national income as equitably as possible so that the least aggregate sacrifice is caused to the taxpayer and the maximum revenue accrues to the state. It is obvious that all incomes of the community cannot be brought within the purview of direct taxes. Indirect taxes succeed in taxing incomes which escape direct taxation.

In an ideal tax system, thus, the objects of taxation should be achieved by a judicious use of direct as well as indirect taxes. The tax system in which both direct and indirect taxes exist side by side is definitely better than one in which only one or the other exists. It is sign of financial virtue to balance direct and indirect taxation in the fiscal system. Gladstone, for instance, regarded these two types of taxes as 'two attractive sisters' to whom an exchequer should be perfectly impartial.

We, however, cannot suggest a perfect balance between direct and indirect taxes in a fiscal system for an underdeveloped country like India. As direct taxation has limited scope in poor countries, indirect taxation or commodity taxation plays an important role in the public finance of these countries. As the Indian Taxation Enquiry Commission opines, in Indian public finance, over and above an increase in direct taxation under income tax and estate duties, more and more reliance will have to be placed on indirect taxation mainly through a further extension of excise duties and sales taxes. But the Indian government must be warned against taxing necessaries further under the present inflationary situation.

In short, a well-oriented system of taxation requires a combination, in different proportions, of direct and indirect taxes.

3.1.16 VALUE ADDED TAX (VAT)

The Value Added Tax (VAT) is becoming a globally popular phenomenon. Over 100 countries have already introduced it. Most countries have adapted the VAT at the Central government level. In India, the VAT is introduced to the states level in 2005. Of the 26 states, 20 have accepted it, while 6 states have opted to remain aloof.

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The VAT is a tax on the consumption of goods and services. Essentially, it is equivalent to a retail sales tax. However, following merits are claimed for the VAT:

(i) It would eliminate economic distortion from input taxation,

(ii) It is self-monitoring and would serve as a helpful administration tool.

In practice, countries have enacted their VATs with different degrees of complexity. Mali initially had a three-rate structure. Recently, it moved to a single rate system. Ghana introduced VAT with a single rate to replace its sales and service tax. The Philippines initially introduced VAT on food and drinks served in restaurants at different rates. Singapore maintains a low VAT rate. There is need to convert existing union CENVAT into a manufacturer's VAT. India needs a well-conceived fiscal strategy of a co-ordinate VAT system. A national VAT, comprising Central and State governments, should be the ultimate goal (Shome, 2002).

BOX 3.1.1: HIGHLIGHT TO WHITE PAPER ON STATE-LEVEL VALUE ADDED TAX (VAT)

- The VAT would eliminate cascading nature of sales tax.
- The existing multiple rates and taxes should be converged into a few rates and a single VAT.
- Transparency in the system of tax administration. Simple self-assessments and departmental audit can ensure it.
- Rationalisation of taxes. To lower tax burden and higher tax revenues.
- Harmonise the design of State VAT.
- State VAT to have two basic rates of 4 per cent and 12.5 per cent and to cover 550 commodities. About 270 commodities will be under 4 per cent rate.
- 46 items, comprising of natural and unprocessed products in unorganised sector, items legally barred from taxation and items having social implications, are exempt from VAT.
- Gold and silver ornaments subject to a special VAT rate of 1 per cent and other commodities to attract a general VAT rate of 12.5 per cent.

The taxes on goods, which include VAT, excise, countervailing duty and the like, presently estimated to be around 33 per cent which is amongst the highest in the world. The government has levied service tax of 12.5 per cent on 90-odd services. In a relative sense, thus, fiscal environment is not so conducive to put India with a competitive advantage on the global economic atlas.

3.1.17 FRINGE BENEFIT TAX (FBT)

Large corporate firms usually provide fringe benefits to the high-income professionals in order to retain the talents in the interest of promoting business.

In modern business environment talent management and keeping employee's morale high is a must for the growth and success of the firm. Fringe benefits are, thus, required as an integral part of contributing to business development. In 2005 budget, the government of India has introduced a new tax on the corporate sector called fringe benefits tax (FBT). It is essentially meant to taxing perquisites that are disguised as fringe benefits and escape tax.

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The Indian finance minister proposal to levy 30 percent taxes on a defined base of the fringe benefits. As per recent circular from the finance ministry, the FBT at 30 per cent is prescribed on items as in Table 3.1.4.

It follows that the Finance Ministry in India has re-categorised perquisites and redefined their tax status as show in Tables 3.1.4.

TABLE 3.1.4: INDIA: FRINGE BENEFIT TAX (FBT) – 2005

Segment	Amount of Expenses to Be Taxed (%)	Effective Tax (%)
1	2	3
1. Entertainment	20	6
2. Hospitality	20	6
3. Conference	20	6
4. Sales Promotion, Publicity (Advertisement exempted)	20	6
5. Employees Welfare	20	6
6. Conveyance, Tour & Travel (Pharma, Software & Construction)	20< 5 >	6< 1.5 >
7. Hotel, Boarding & Lodging (Pharma, Software & Construction)	20< 5 >	6< 1.5 >
8. Repair, Vehicles for Staff	20	6
9. Telephone	20	6
10. Scholarship	50	15

Source: Business Time, Times of India, 31-8-2005.

FBT Impact

FBT in India appears to have increased the burden on employers. But, in practice it will ultimately be passed on to employees, by including FBT in the cost to company. Perhaps, the government has failed to assume the incidence of taxation, as usual, and has not taken any precaution to stop the shifting of the tax burden. Hence, in reality employees may bear brunt of FBT in India. So far, medical reimbursement of up to ₹ 15,000 was tax exempt. Not treating it as fringe benefit would attract a tax at 30 per cent on 20 per cent of the reimbursed amount. That means, against the reimbursed of ₹ 15,000 now a tax of ₹ 900 is to be paid. Further, a medical reimbursement of ₹ 20,000 will imply FBT on ₹ 15,000 and the balance of ₹ 5,000 will be treated as the employee's income to be taxed at 30%.

Table 3.1.4 indicates that FBT will spare non-even scholarship is treated as a fringe benefit to an employee who goes for improving his qualification with the company's support. Apparently, in Malaysian tax system, there is no such anomalies, so the Malaysian employees are placed at a better position than Indian employee under the tax regime.

The Indian FBT is affecting bottom lines in most sectors of the business. It is a mixed bag as can be seen from the impact points described in Box 3.1.5.

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BOX 3.1.2: INDIA: FBT IMPACT

Impact	No Impact
• Scope of FBT to include any expense incurred on the employees and their families extended to non-employees	• Foreign branches free from FBT impact
• Food and beverage served after office hours to fall under FBT	• Overseas employees not impacted
• Expenditure on dealer meets not considered as FBT	• LTA if given as salary then not considered as FBT
• Celebrity endorsements	• Transport Allowance (₹ 800) and children education allowance under salary are exempted, in-house training not included under FBT
• Free sampling to attract FBT	• Dealer margins are not fringe benefit
• Group health insurance, if not a statutory obligation, to attract FBT	• Outsourced market research not liable
• Expenditure on books and periodicals to employees is a fringe benefit	• Bonus points on credit cards are not liable

Source: Business Times, Time of India, 51-8-2005.

Indian fast moving consumers goods companies (FMCC) like Hindustan lever Ltd, Dabur, Proctor & Gamble, etc. will be adversely affected by the FBT levy on key marketing function, such as celebrity endorsement, sales promotion and sampling as these have nothing to do with employees. One has to question the wisdom of the government in treating sampling of products as fringe benefits. Laws relative to FBT imply another addition and complication to the existing taxation laws. There are several anomalies in FBT laws. Surprisingly, an employer having any income (but only generating loss) is liable for FBT. There are overlapping sections. Besides 16 items have been listed as deemed to are provided to employees that include use of telephone, gifts and even not only repairs of cars, but also depreciation as fringe benefits. Executive on sales production including publicity is taken as FBT deemed to be provided to employees. However, no clearcut definition of what is included in sales promotion and publicity is provided. This will lead to endless disputes and litigation.

Shipping firms are likely to face higher tax outgo under the FBT on account of levy application on conveyance, travels, branding and lodging expenses of crew members. Group health cover will be costlier owing to FBT. Big branch may also rethink on celebrity endorsement as brand ambassadors for sales promotion and publicity. It may so happen like in the case of service tax on broadcasts that refused to pay and it was passed on the advertisers. Same way agency outfitting the celebrity would have to cough up such FBT. In short, FBT in India seems to be a penny-wise pound-foolish attempt of fiscal mismanagement to raise revenue. It will ruin the core competency of the Indian business without any substantial gain in public revenue.

The government's intention on FBT is to curb tax avoidance through payment for fringe benefits. But, there should be scope to allow reasonable business expenses such as on travel, accommodation, entertainment, etc. valuation is more important than taxation. The government must value the phenomena in the modern times rather than keeping its foot on the obsolete standards of the past. In other countries, FBT is on fringe benefits

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than on direct salaries. In India, it is relatively high at 30 percent tax rate. The government should avoid harming the goose that lays golden eggs. Motivational aspects of fringe benefits is jeopardised by undue FBT. In Indian fiscal management, the government has yet to evolve a system of taxation that will be fair and equitable and not merely eyeing on revenue. (Parthasarathy, 2005)

3.1.18 SUMMARY

The income of the government through all sources is called public income or public revenue. According to Dalton, however, the term "public income" has two senses wide and narrow. In its wider sense, it includes all the incomes or receipts which a public authority may secure during any period of time.

The necessity of public revenue is, of course, due to the needs of public expenditure. The size of public revenue is thus determined by the volume of public expenditure.

The government has to find sufficient money for discharging its functions. There is thus a tendency on the part of the modern governments to increase the public revenue, by tapping all possible sources. Rising of more public revenue implies creating disutility for taxpayers. The process, thus, tends to affect the social welfare adversely. Public authority works for the common benefit and to carry out their functions properly they need adequate revenue for spending. Thus, the norm that the government which taxes least and spends least in not very sound in the modern times. A welfare government is perfectly justified in raising large revenue from its people. It serves as an essential fiscal measure for achieving social justice and economic equality. But taxing the richer section of community more heavily, the state can subdue the pressure of excessive purchasing power from the economy, thus, helping in curbing the inflationary forces and by an appropriate public spending can transfer this purchasing power for the benefit of the poor, thereby increasing the general economic welfare.

A fund raised through the various taxes is referred to as tax revenue. Taxes are compulsory contributions imposed by the government on its citizens to meet its general expenses incurred for the common good, without any corresponding benefits to the taxpayer.

Seligman defines a tax thus: A tax is a compulsory contribution from a person to the government to defray the expenses incurred in the common interest of all, without reference to special benefits conferred.

The main characteristic features of a tax are as follows: *(i)* A tax is a compulsory payment to be paid by the citizens who are liable to pay it. *(ii)* There is no direct *quid pro quo* between the taxpayer and the public authority. *(iii)* A tax is levied to meet public spending incurred by the government in the general interest of the nation. *(iv)* A tax is payable regularly and periodically as determined by the taxing authority.

Public income received through the administration, commercial enterprises, gifts and grants are the source of non-tax revenues to the government. Thus, non-tax revenue include: (i) Administrative revenue; (ii) Profit from state enterprises; and (iii) Gifts and grants.

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A scientific classification enables us to know in what respects these various sources resemble one another and in what ways they differ. Of the various classifications of public revenue available in economic literature, we shall review the following two major classifications.

Taxes are subdivided into: (i) Taxes in the ordinary sense; (ii) Tributes and indemnities; (iii) Compulsory loans: and (iv) Pecuniary penalties for offences.

Price are subdivided into: (i) Receipts from public property passively held, such as rents received from the tenants of public lands; (ii) Receipts from public enterprises charging competitive rates; (iii) Fees or payments charged for rendering administrative services, such as birth and death registration fees; and (iv) Voluntary public debt.

The direct taxes of the Government of India are: (i) Income tax, (ii) Capital gains tax, (iii) Estate duty, (iv) Wealth tax, (v) Gift tax, (vi) Expenditure tax, (vii) Company taxes.

The principle has many shortcomings: (i) It is not so easy to estimate the cost of government service or social goods made available to each individual taxpayer. It is difficult to find any precise measurement of the costs and sharing of such costs in most of the indivisible public services such as defense, police, etc. (ii) It is not in conformity with the definition of tax. A tax is not a price. (iii) The principle seems to apply that the citizen is at liberty to refuse the public services offered to him and escape tax payment. (vi) It imposes undesirable limitations on the scope and scale of the public services. (v) It goes against the norms of welfare. If cost is the base of taxation, government cannot provide free education and medical care to the poor section.

The concept of taxable capacity is essentially connected with the doctrine of ability to pay. Taxable capacity refers to "the maximum tax which might be collected from a particular taxpayer or a group of taxpayers." The term "taxable capacity" ordinarily refers to the maximum capacity of a community to bear taxes without much hardship. The base and tax rate together determine tax revenue raised by the government. The item or economic activity on which the tax is levied by the government is referred to as the tax base. Income, consumption and wealth are the major economic bases of taxation.

Seligman and Dalton represent a traditional view of the concept of incidence. In a traditional sense, the ultimate point of tax burden is referred to as tax incidence. In the traditional notion of incidence of taxation, we have three distinct but interrelated terms, namely, impact, shifting and incidence, which correspond respectively, to the imposition, transfer, and settling of the tax. As Seligman puts it, the impact is the initial phenomenon, shifting, the intermediate process, and incidence is the result.

A proportional tax system, however, does not cause any change in the relative position of taxpayers, so it will be neutral in effect on the distribution of income. In a way, it may also tend to accentuate inequalities, since under proportional tax rates; the direct real burden would be heavier upon the lower income groups. So is the case with a mildly progressive tax system which also imposes a heavier direct real burden upon the lower income classes.

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3.1.19 SELF ASSESSMENT QUESTIONS

1. Give the meaning and significance of Public Revenue
2. Discuss the term Tax Revenue
3. Explain in details the Non-tax Revenue.
4. Explain the classification of taxes.
5. State the various sources of revenue for the Union Government in India.
6. Explain the Benefit Principle of Taxation.
7. Explain the Ability-to-pay Principle of Taxation.
8. What is Equity?
9. Explain the significance of the concept of Taxable Capacity.
10. Discuss the classification of direct and indirect taxes.
11. Explain the advantages and disadvantages of Direct and Indirect Taxation.
12. Explain the role of direct and indirect taxes in developing countries.
13. Explain various incidences of Income Tax.
14. Define Tax Burden and discuss its importance.
15. Explain the theories of shifting of Tax Burden.
16. Critically examine Musgrave's views incidence and shifting of tax.

3.1.20 **Key Terms**

1. **Taxation**: The process of levying taxes on individuals, businesses, and other entities by the government to generate revenue.
2. **Tax Revenue**: The income collected by the government through various types of taxes, such as income tax, sales tax, corporate tax, and property tax.
3. **Direct Taxes**: Taxes imposed directly on individuals or entities, such as income tax and corporate tax.
4. **Indirect Taxes**: Taxes imposed on goods and services, where the burden of the tax can be passed on to consumers, such as sales tax and value-added tax (VAT).
5. **Progressive Taxation**: A tax system in which the tax rate increases as the taxable amount increases, aiming to impose a greater burden on higher-income individuals.
6. **Regressive Taxation**: A tax system in which the tax rate decreases as the taxable amount increases, resulting in a higher burden on lower-income individuals.
7. **Proportional Taxation**: A tax system in which the tax rate remains constant regardless of the taxpayer's income or wealth.
8. **Tax Base**: The value or quantity of goods, services, income, or wealth subject to taxation.
9. **Tax Compliance**: The degree to which taxpayers adhere to tax laws and regulations by accurately reporting their income, deductions, and liabilities.
10. **Tax Evasion**: The illegal act of deliberately underreporting income, inflating deductions, or hiding assets to reduce tax liability.
11. **Tax Avoidance**: The legal act of arranging one's affairs in a way that minimizes tax liability within the bounds of the law.
12. **User Charges**: Fees or charges imposed by the government for the use of specific services or facilities, such as tolls, parking fees, and entrance fees to national parks.
13. **Customs Duties**: Taxes imposed on goods imported or exported between countries, often used to protect domestic industries or generate revenue.
14. **Excise Taxes**: Taxes imposed on specific goods, such as alcohol, tobacco, gasoline, and luxury items.

3.1.21

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4.1 Chapter

PUBLIC BORROWING

Objectives

After completing this chapter, you will be able to:

- Understand the concept of public borrowing
- Know the trends in public debt
- Understand the economics of public debt
- Know the management of debt
- Understand the public borrowing and development finance

Structure:

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4.1.1 INTRODUCTION

Public borrowing or public debt as an instrument of fiscal policy is of recent origin. As mentioned in the Encyclopaedia Britannica, public debt refers to "obligations of government, particularly those evidenced by securities, to pay certain sums to the holders at some future date." In fact, public debt is considered when the government floats loans and borrows from the public. Government needs to brow when current revenue falls short of public expenditures.

When a government raises loans internally or externally from bank, individuals and financial firms or world's monetary institutions or from foreign governments, it incurs a debt (liability), known as 'public debt.' Public borrowing or public debt is an important source of revenue to a modern government. It is, however, an instrument for temporarily augmenting revenue of purchasing power in exchange for an obligation (under a promise) on the part of the government to repay the principal sum borrowed plus a stipulated rate of interest on it, as a specified future date. In fact, the instruments of public borrowings are in the form of various types of government bonds and securities. A government bond of a government security paper is a form of written promise to pay, made by the government to the lender of capital. Since the state being sovereign, an ordinary promissory note or a commercial agreement or a public bond cannot be subject to the ordinary legal processes, except under conditions which it itself prescribes, and even if it be so, since it is supreme, the state must be the sole judge in its own case. Hence, the success of public borrowing programme very much depends on the confidence the people have in the government and its policies.

The proceeds from public borrowings constitute the revenue of a capital nature while the provision of for their payment, and servicing should be regarded as an expenditure of a capital nature, in any budget. The payment of interest on loans borrowed is, however, a charge on the revenue account of the budget.

Sources of Public Borrowings

There are two major sources of public borrowings: (i) internal and (ii) external, Internally, the government may borrow from citizens, commercial banks, other financial institutions in the money market and from the central bank. The state may also borrow from external sources, from individuals, and banks of foreign countries, foreign governments and international institutions.

An important difference between public debt and private debt is that the private debts is owned by one distinct economic unit (firm or household) to another, while public debts is owned by an economic unit to its component parts.

Objects of Public Borrowings

The following are the objects of public borrowings:

1. To fill up the gap between anticipated public expenditure and current public revenue.
2. To seize away excessive purchasing power from the public during an inflationary period.
3. To overcome depression by spending more through the creation of public debt.
4. To finance developmental plans.
5. To meet war finance.

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4.1.2 NECESSITY OF PUBLIC DEBT TRENDS IN PUBLIC DEBT

A public debt in modern times constitutes an important part of the total assets (public and private) created in the economy. For financing the ever-increasing public expenditures, huge loans (internal as well as external) are floated by the governments from time to time, with the result that huge national debts have become a prominent feature of modern public finance. Till recent times, public debt was not assigned any significance in public finance. The classical school of through, in fact, was pursuing a policy of balanced budget and therefore debt creation activity of a state was regarded as of little importance in their analysis. At the most, they approved only a self-liquidating public loan in inevitable circumstances. It was, however, during the period of the Second World War that the technique of public debt was recognised as an important method in war finance. Now, the public debt policy has been universally accepted as a method of financing the economic development of the country.

In modern economics, the public debt criterion is perfectly justified in the following situations:

1. During War Period: Modern economics is very costly and cannot be entirely financed through taxation measures. For, if taxes alone are used, production will be adversely affected under heavy direct taxes and fixed income groups will be hit hard when indirect taxes are enhanced. Public borrowings will not have such dire consequences. Creation of public debt is, thus, a better and easier method is collecting revenue and transferring resources from the civilian to the military sector.

2. In Times of Depression: Public debt creation is considered very significant to remedy a depression. For, during a depression, increase in taxes will have an adverse effect on incentive to work and invest. But, if the government takes up public investment, financed by borrowing especially from the banking sector, employment, income and level of effective demand will have a cumulative expansion. Moreover, during a depression, loanable fund is in excess supply, which can be fruitfully exploited through government borrowings which would also help in sustaining the capital markets.

3. To Meet Unprecedented Expenses: A government may have to borrow for financing a sudden rise in its expenditure required to meet certain fortuitous event like floods, famines, epidemics etc. necessitating relief works.

4. To Curb Inflation: Public borrowing may be regarded as a means to relieve the pressure of inflationary spiral in the economy, as by raising public loans the government absorbs the excessive spending power from the subscribers. But, as many modern economists rightly feel, taxation would be a better anti-inflationary measure as compared to public debts, because in public borrowing the liabilities of the government increase, if the government does not use the borrowed sums. But, the surplus of tax revenues can very well be left idle in the state treasury to curb inflationary pressure in the economy.

5. As Development Finance: Mostly the developing countries in view of low taxable capacity of the economy and less domestic resources available for development purposes, resort to internal and external borrowings as an important source of development finance. For effecting rapid capital formation and accelerating the tempo of industrialisation, India, for instance has resorted to public loans to a greater extent in recent years. Under economic planning, public borrowing, thus constitutes an important financial resource. In advanced countries, too, the governments resort to borrowings for

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constructing capital equipments and public works programmes such as development of roads, irrigation, power houses, etc. In this way, public loan are being productively used.

Further, in development finance, debt creation activity has less administrative and no political difficulties than in adopting a policy of tax rates enhancement. Keynes, however, has suggested deficit financing as an alternative. But compared to deficit financing (printing more notes), debt criterion is a better and more direct method of transferring the real resources from the private to the public sector. Public borrowing has an immediate direct effect on restraining private spending on consumption of investments, whereas deficit financing carries with it an inflationary potentiality which is sometimes harmful to growth, especially in a less developed economy which is confronted with many obstacles in the way of progress.

Since the inception of planning in our country there has been a mounting growth of public debt. Public borrowings, short-term as well as long-term are regarded as important sources of financing the country's Five Year Plans.

External debt represents a claim of foreigners against the real income (GNP) of the country, when it borrows from other countries or international financial institutions such as the International Monetary Funds or the World Bank and has to repay at the time of maturity.

External public debt permits import or real resources. It enables the country to consume more than it produces.

The following points of distinction between internal and external debt are noteworthy:

1. An internal loan may be voluntary or compulsory, but an external loan is normally voluntary in nature. Only in the case of a colony, an external loan can be raised by compulsion.
2. An internal loan is controllable and can be estimated beforehand with certainty while external loans are always uncertain and cannot be estimated so confidently. Its relation is very much conditioned by international politics and foreign policies of the lending government.
3. Internal loan is in terms of the domestic currency, while external loans are in terms of foreign currencies.

4.1.3 ECONOMIC EFFECTS OF PUBLIC BORROWINGS

The economic effects of public borrowing, by and large, differ with the different sources of borrowed funds. An elucidation of this may be made as follows:

1. When the government borrows from the general public, purchasing power — hence the real resources — are transferred from the private hands to the public hands. This would tend to curb consumption as well as investment in the private sector. Thus, public borrowings from individuals within the country can have a deflationary or anti-inflationary impact on the economy. Particularly when the government incurs a long-term debt, the cash balances — highly liquid assets — in the hands of individuals will be reduced, thereby reducing their spending capacity, which would serve as a good anti-inflationary measure. Normally, however, the sale of government bonds to individuals

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will not affect their consumption or business expansion much, if the bonds are absorbed out of the idle cash balances.

2. The government bonds in a country are also purchased by the non-banking financial institutions like insurance companies, trusts etc., because of their high order of security and their quick negotiability and liquidity attributes. But, by and large, such institutions prefer equity rather than government bonds on account of the latter's lower interest rate. Thus, non-banking financial institution invest in government bonds only in order to reduce their cash holdings.

Anyway, when non-banking financial intermediaries subscribe more to the government loans, to that extent their leadings to the private sector is reduced. With the decline of availability of loanable funds in the money market, thus, the rate of interest may tend to rise. Consequently, with a given marginal efficiency of capital, the volume of investment may tend to decline. In this way a contradictory effect may be visualised on account of the public borrowings. If, however, the subscription to the government loans involves merely transfer of idle cash resources or high excess reserves from these institutions, which will be productively used in the public sector, it will generate as expansionary effect.

Further, as compared to taxation, public borrowings from non-banking financial institutions or individuals are normally less deflationary in effect, because taxation affects both the size and composition of privately-held assets, while borrowing affects only the composition of the assets.

3. In a way, it is a state borrowing from commercial banks, when the banks subscribe to government loans. Such borrowings, however, lead to an addition in the quantum of money supply in the country. For, when the commercial banks purchase government bonds, they will credit the account of government, through derivative deposits against which cheques may be drawn. Such derivative deposits are created from the excess reserve funds realised through primary deposits. But, in the banking system as a whole, the process would generate a multiple of such credit creation, depending upon the reserve ratio, other things being equal. Moreover, in purchasing government bonds the commercial banks will have enough of liquidity as compared to direct loans given to the private sector. Bonds can serve as collateral for borrowings from the central bank or they can be sold in the open market, under credit stringency. Banks, thus, by selling the bonds or using them as collateral for additional reserves, would be in a better position than before purchasing the government securities. As such, they would be in a stronger position to expand their credit criterion activity. In fact, such expansionary monetary effects of government borrowings from banks is due to the fact that loans to government (i.e., purchaser of government bonds) have to been substituted for advances made to the private sector. As a matter of fact, borrowings from banks under conditions which effectively make bank holdings of government bonds and securities redeemable nullify the possibilities of contracting credit through high reserve requirements.

If, however, banks as a rule are unable to use government securities for borrowing from the central bank, then the purchase of government securities will be at the cost of potential loans to the private sector. Then, there will be diversion and distribution of bank advances. But, in such a case the banks would normally refrain from investing much in the government securities, as it would weaken their liquidity position.

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Normally, however, when banks subscribe to the government loans out of excess funds, without any reduction in the loans to the private sector, there is a net increase in the supply of credit money. When this additional bank credit money is expended by the government, inflationary pressures will be generated, if the economy is already in equilibrium of full employment level, or if there are bottlenecks prevailing in the economy. On the other hand, public borrowings from banks can very well be used as an anti-inflationary tool, due to the inflationary potential contained in the bank credit expansion.

4. Similarly, when the central bank subscribes to the government loans, which will be paid out to its creditors by the government, it is, in effect, analogous to printing more notes. As such, the money supply would increase. When the cash with public rises in the process of transactions, it may go to the commercial banks, thereby increasing their reserve funds and credit-creating capacity, so that the expansion of credit may take place, generating a further inflationary pressure.

5. External borrowings are the helpful in many ways. They can be used to procure defence equipment, otherwise not possible with low foreign exchange reserves. They can also be used for implementing development projects or for paying off adverse balance of payments.

Today, International Monetary Fund (IMF), International Bank of Reconstruction and Development (IBRD), or World Bank, International Finance Corporation (IFC), and International Development Association (IDA) are the major institutions which give short-term credits to various governments for overcoming their temporary balance of payments difficulties and long-term loans for development purposes. Moreover, governments of developed countries give assistance for development projects of less developed countries. For economic planning and capital formation, thus, external debt serves as an important form of resources to many developing countries.

Foreign loans can influence both consumption and investment favourably. They can be used to finance imports and when they consist of consumer goods, the scarcity is overcome so that inflationary pressure owing to shortage of goods may be checked. Industrialisation of a country can be accelerated by import of capital goods and technical know-how by using such loans. But, of course, the foreign loans used for purchasing war equipments or for conspicuous consumption cannot have any healthy effect on domestic investments.

4.1.4 FORMS OF PUBLIC DEBT

Government loans differ from one another in many ways. The differences arise on account of many factors such as categories of market in which the loans floated, conditions of repayment, purpose of borrowing, etc. Different forms or classification of public debt have been laid down as follows:

(i) Internal and External Debt.
(ii) Productive and Unproductive Debt.
(iii) Redeemable and Irredeemable Debt.
(iv) Short-term floating loans, Medium-term loans, and Long-term loans
(v) Funded and Unfunded Debt.
(vi) Voluntary and Compulsory Loans.

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(i) Internal and External Debt: According to the place of floatation of a government loan, public debt is commonly classified as internal or external. Internal debt refers to the government loans floated in the capital markets within the political boundaries of a country. Its subscribers are citizens or institutions of the country. When, however, a public loan is floated in the foreign capital markets and is subscribed to by foreign individuals, foreign governments or international financial institutions, it is called an external debt. In short, loans floated within the country are called internal debts and those floated outside the country are referred to as external debts.

An important feature of external debt is, that usually foreign exchange resources of the borrowing country increase when the loans are received in terms of foreign currencies. But, when there is repayment of such loans, or for debt servicing charges, foreign exchange reserve is depleted to that extent. Sometimes, however, external loans are repayable in the borrowing country's domestic currency, so that foreign exchange resources are least affected. For instance, in the post-independence period, India has received loans from the USA under P.L. 480, which are repayable in Indian rupees.

Since under internal debts, borrowing takes place within the country, the availability of total resources does not arise. Simply, the resources are transferred from the bondholders — individuals and institutions — to the public treasury, and the government can spend these for public purposes. Similarly, payment of interest and repayment of principal of internal loans would transfer resources from taxpayers to bondholders. An internally held public debt, thus, represents only a commitment to effect a certain transfer of purchasing power among the people within the country. It has, therefore, no direct net money burden as such. It amounts to only a redistribution of income in the community from one section to the other.

External debt, on the other hand, leads to a transfer of wealth from the lender nation to the borrower nation. When a loan is made through the means of external loans, the resources available to the borrowing nation increase. However, when a foreign loan is repaid or interest is paid on such loans, there would be a transfer of resources from the debtor to the creditor countries, causing a decline in total resources of the debtor country. To cover the interest and repayment of the principal of an external loan, the debtor government has to curtail its expenditure in the future or reduce private spending by increasing taxation, thus cutting the use of resources at home.

However, for a developing country like India, foreign loans are of immense help, as they will supplement the available domestic resources for capital formation and accelerate industrialisation by enabling it to acquire foreign technical know-how.

(ii) Productive and Unproductive Debt: Public debt is said to be productive or reproductive when government loans are invested in productive assets or enterprises such as railways, irrigation, multipurpose projects, etc., which yield a sufficient income to the public authority to pay out annual interest on the debt as well as help in repaying the principal in the long-run. As such, a productive public debt is self-liquidating in nature, so the community experiences no net burden of such debt.

An unproductive debt, one the other hand, is one which does not add to the productive assets of a country. When the government borrows for unproductive purposes like financing a war, or for lavish expenditure on public administration, etc., such public loans are regarded as unproductive. Unproductive loans do not add to the productive capacity of the economy, so they are not self-liquidating. Unproductive public loans thus

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cast a net burden on the community, as for their servicing and repayment purpose, government will have to resort to additional taxation.

(iii) Redeemable and Irredeemable Debts: On the criteria of maturity, public debts may be classified as redeemable or irredeemable. Loans which the government promise to pay off at some future date are called redeemable debts. For redeemable debts, thus, the government has to make some arrangement for their repayment. They are, therefore, terminable loans. Whereas loans for which no promise is made by the government regarding the exact date of maturity, and all that the government does is to agree to pay interest regularly for the bonds issues, are called irredeemable debts. Their maturity period is not fixed. They are generally of long duration. Under such loans, society is burdened with a perpetual debt, as taxpayers would have to pay heavily in the end. Therefore, redeemable debts are preferred on grounds of sound finance and convenience.

(iv) Short-term, Medium-term and Long-term Loans: According to their duration, redeemable loans many further be classified as: short-term, medium-term or long-term debts. Short-term debts mature within a short-period of 3 to 9 months. For instance, Treasury Bills are in instrument of credit extensively used as means of short-term (usually 90 days) borrowing by the government, generally for covering temporary deficits in the budgets. Interest rates on such loans are generally low.

Long-term debts, on the other hand, are those repayable after a long period of time, generally 10 years or more. For development finance, such loans are usually raised by the government. Long-term loans usually bear a high rate of interest. Similarly, loans of medium-term (in between short-term and long-term) are floated by the government, bearing intermediate interest rates. For war finance, or to meet expenditure on education, health, relief work, etc., such loans are generally obtained.

(v) Funded and Unfunded Debt: Funded debt is, in fact, a long-term debt, exceeding the duration of at least a year.

It compromises of securities which are marketable on the stock exchange. Funded debt in its proper sense is, however, an obligation to pay a fixed sum of interest, subject to an option of the government to repay the principal. In such debts, the creditor bondholder has no right to anything but the interest.

Unfunded debts, on the other hand, are for a comparatively short duration. They are generally redeemable within a year. Unfunded debts are, thus, incurred always in anticipation of public revenue, a temporary measure to meet current needs.

(vi) Voluntary and Compulsory Loans: In democratic society usually public loans are willingly and voluntarily subscribed by the citizens, banks and other financial instructions. Such loans are described as voluntary public debts. Voluntary loans are subscribed to by the people according to their ability, will and convenience. In a democratic state, normally, public debt is of voluntary nature.

Sometimes, however, a public loan may be compulsorily subscribed to, just like taxation. Such loans are knows as compulsory loans. They are resorted to only in exceptional circumstances. For instance, in England during the 17th century, forced loans were floated by the government. Generally, the rate of interest payable on compulsory loans is lower than on voluntary loans. A compulsory loan, thus, resembles a tax, but differs in one respect, in that unlike a tax it is subject to payment of interest and

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repayment of the principal at a future date. It is, however, a rare phenomenon in modern public finance.

4.1.5 GROWTH OF PUBLIC DEBT IN INDIA

India's public debt consists of current market loans raised through issue of bond and securities, prize bonds 15-year Annuity Deposit Certificates, as hoc treasury bills issues to the Reserve Bank, State Governments, State Bank of India and other institutions, treasury bills issued to general public, non-negotiable and non-interest bearing securities issued to the international financial institutions for raising external loans and direct loans form foreign governments. In addition, there are unfunded liabilities of the Government of India comprised of deposits under small savings, post office savings bank deposits, post office cash certificates, cumulative time deposits, national saving certificates, income tax annuity certificates, State Provident Funds, Public Provident Funds, etc.

In 1950-51, the central government borrow ₹ 2,054 crores. Its borrowing has now increased to almost by 16 per cent in 1979-80, amounting to ₹ 34,116 crores. Throughout the period 1950-51 — 1990-91, India has an upward trend of public debt, as is evident from Table 4.1.1.

TABLE 4.1.1: TREND OF GOVERNMENT OF INDIA'S DEBT

(₹ Crore)

Year Liabilities as at the end of March	Internal Debt	External Debt	Total Debt	Debt-GNP Ratio*
1950-51	2,022	32	2,054	23.0
1960-61	3,978	1,001	4,979	32.8
1970-71	7,464	6,577	4,041	35.6
1980-81	30,864	11,298	42,165	34.3
1990-91	154,004	31,525	185,529	39.8
1991-92 (R)	11,72,750	35,501	205,605	38.4
1992-93 (R)	1,99,100	39,565	228,101	37.4
1993-94 (R)	2,45,712	45,812	2,88,621	41.6
1994-95 (B)	2,66,467	49,508	3,27,068	—
1995-96 (R)	5,53,044	52,666	6,05,719	—

R = Revised Estimate B = Budget Estimate

* Total Debt/GNP at factor cost at current prices.

Source: GOI, Economic Survey 1992-93, and CMIE's Basic Statistics Vol. I. and RBI, Report on Currency and Finance 1995-96 and 1996-97.

Increasing resort to borrowings over the years has led to a continuous rise in the Centre's total debt — internal as well as external. Government of India's total debt as a percentage of country's Gross National Product has increased steeply and nearly doubled from 23 per cent in 1950-51 to 40 per cent in 1989-90. In 1991-92, it is worked out at 38.4 per cent.

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The enormous growth of public debt in India may be accounted for the following reasons:

(i) Rise in plan expenditure. As compared to 1950-51, the annual plan investment has increased more than 15 times in 1979-80. During the 7th plan, public sector outlay was ₹ 2,21,436 crores. The 8th Plan envisages public sector outlay of ₹ 4,34,100 crores.

(ii) Defence expenditure has also increased considerably from ₹ 164 crores in 1950-51 to ₹ 3,094 crores in 1979-80 and further to ₹ 17,350 crores in 1991-92.

(iii) Rising administrative costs on account of the rise in pay-scale and dearness allowances to the government staff.

(iv) Increase in grants and aids provided to the state governments from time to time according to the recommendations of the Finance Commissions. In fact, central assistance to states has gone up from ₹ 16 crores in 1950-51 to ₹ 2,270 crores in 1978-79 and further to ₹ 14,166 crores in 1991-92.

(v) Rise in debt servicing charges which have gone up from ₹ 37 crores in 1950-51 to ₹ 975 crores in 1973-74 and further to ₹ 32,000 crores in 1992-93.

(vi) Rising prices level has also been responsible for the increase in public expenditure.

When public expenditure has exceeded the revenue estimates in the budget, there was no alternative for the government except public borrowings and deficit financing.

Data is Table 4.1.2, provides details of India's public debt position over the years.

TABLE 4.1.2: INDIA'S PUBLIC DEBT: OUTSTANDING LIABILITIES OF CENTRAL GOVERNMENT

Year (end-March)	Internal debt	Of which			Small savings, deposits & provident funds	Other accounts	Reserves funds and deposits	Total internal liabilities (2+6+7+8)	External liabilities	Total liabilities (9+10)
		Market loans	91-day treasury bills	182/364-day treasury bills						
1	2	3	4	5	6	7	8	9	10	11
1990-91	1,540.04	705.20	69.53	10.78	617.71	453.36	219.22	2,830.33	663.14	3,493.47
2000-01	8,036.98	4287.93	18.76	162.96	963.43	1,440.20	585.35	1,1025.96	1,899.90	12,925.86
2001-02	9,130.61	5165.17	50.47	195.84	1,445.11	1,641.57	731.33	12,948.62	1,996.39	14,945.01
2002-03	10,206.89	6191.05	96.73	261.22	2,264.00	1,723.74	801.26	14,995.89	1,960.67	16,956.56
2003-04	11,417.06	7,079.65	71.84	261.32	2,883.78	1,680.94	923.76	16,905.54	1,841.77	18,747.31
2004-05	12,759.71	7,589.95	83.38	261.48	3,904.77	1,741.07	929.89	19,335.44	1,911.82	2,1247.26

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2005-06	13,897.58	8,623.70	163.64	357.85	4,797.61	1,869.21	1,094.62	21,659.02	1,940.70	23,599.72
2006-07	15,449.75	9,728.01	308.02	426.25	5,394.50	2,201.60	1,312.95	24,358.80	2,011.99	26,370.79
2007-08	17,996.51	11,045.64	303.71	413.81	5,536.20	2,450.81	1,270.43	27,253.95	2,100.86	29,354.81
2008-09	20,198.41	13,381.94	755.95	657.21	5,535.18	3,340.91	1,286.82	30,361.32	2,640.62	3,3001.94
2009-10	23,283.39	17,466.19	715.49	629.93	6,206.27	3,274.57	1,194.53	33,958.77	2,493.06	36,451.83
2010-11	26,671.15	20,720.33	703.91	644.79	6,805.61	3,046.97	1,287.62	37,811.35	2,715.70	40,527.05
2011-12	32,024.11	25,084.47	1,344.29	1,427.68	6,845.61	2,861.64	1,276.28	43,007.65	2,933.77	45,941.42
2012-13	37,436.58	29,874.47	1,294.29	1,567.68	6,965.61	2,719.71	1,350.84	48,472.74	-	-

Note : 1. Data for 2011-12 are Revised Estimate and data for 2012-13 are Budget estimates.

2. External Liabilities are calculated at current exchange rate.

3. Sharp decline in 91-day treasury bills is on account of conversion of ad hoc treasury bills into special securities in Year 1997-98.

4. Internal Debt Data from 2004-05 to 2012-13 include liabilities on account of Market Stabilisation Scheme (MSS).

Also see Note on Tables.

Source: Budget document of the Government of India.

A basic truth of fiscal management is that if in a country the tax revenue is not reflecting buoyancy and fails to keep pace with the expending expenditure of the government, inevitally there the gap is financed through deficit in the budget. Data in Table 4.1.2 suggest that in recent years tax-revenue to total expenditure (TR - TE) Ratio of the central government of India declined from 60 per cent in 2006-07 to 46 per cent in 2010-11.

The government of India has resorted in financing its massive public expenditure through heavy does of public borrowing. During 2007-08 to 2011-12, for instance the government expenditure increased by annual 75 per cent implying a 15 per cent annual rate of growth on an average. On the other hand, during this period, the amount of public debt had a quantum jump estimated to be around 225 per cent annual growth rate of public borrowing. The propelling force behind excessively rising public spending in India may be attributed to political decision of the populist government. Furthermore, the course of public spending is never optionally employed and utilized for unproductive purpose reflecting no positive impact - on real economic growth of the country. There is political expediency rather than fiscal prudence behind the fast rising growth of public expenditure.

Against the rising public expenditure without - corresponding revenue generation, involved rising government deficits over the years. This lead to an excess burden on the economy which cannot the tolerated without - limit in the long run. Huge public debt - accumulation has threatened the economic stabilization of the western countries. Presently, though one may assume that media's debt - position presently may not be

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alarming its centuinment and consolidation of fiscal deficits is inevitable to avoid ill-economic effects, such as lowering economic growth, lower real income, higher risk of financial and economic crisis (Mathur, 2012)

4.1.6 BURDEN OF PUBLIC DEBT

The burden of national debt refers to the sacrifice it will impose on the community through a rise in taxation, necessitated at the time of repayment and for paying the annual interests on the government loans. This burden may be direct, indirect, monetary or real, and it may tend to fall either on the present or sometimes on the future generation. Direct money burden is measured by the extent of money payment involved and the rise in taxation needed. Direct real burden is equal to the loss of economic welfare (sacrifice of goods and services undergone by the tax bearing sections of the community) on account of the direct money burden of increased taxation. Indirect burden of debt, however, refers to the extent of adverse effect of increased taxation on the level of production. In estimating the burden of public debts, thus, one has to consider the nature of the debt as to whether it is productive or unproductive, whether the debt is internal or external, and also the price level in the economy. The price level is significant in the sense that the real burden of interest varies inversely to the changes in price level. As the general price level falls, the real burden of interest increases, for the value of money is rising, so that the lender of the loan receives a relative as well as an absolute increase in the purchasing power and to that extent, it would cost more to the society in terms of real goods and services to be sanctified. On the other hand, if the prices are rising, the real burden of interest obviously declines.

Burden of External Debt

Borrowings from foreign countries create external public debts. Initially these loans are beneficial as they augment the resources available to the country. But, the question of its repayment and servicing certainly creates a burden on the borrowing community. The direct money burden of the external debt is measured by the sum of money payments in the form of interest and principal to external creditors (foreign dwellers), and the direct real burden by the loss of economic welfare (in terms of consumption of goods and services forgone), which these money payments involve, to people in the debtor country. Given the direct money burden, thus, the direct real burden will vary according to the proportion in which various sections of the community contribute payments. Since, money payments to be made to the foreign creditors are raised by taxation, and if the relative burden of taxation falls heavily upon the rich, the direct real burden to the community as a whole will be lesser than if the relative burden of taxes is largely shouldered by the poor. To put in other words, the money payments made to the external creditors are used by them to fetch goods and services which would otherwise have been used by the people of the debtor country. To this extent, the later are thus deprived of goods and services (a sort of sacrifice is, thus, involved); hence, the resulting direct real burden will depend on the distribution of this deprivation or loss in the debtor community.

Further, when government finances expenditure through external debts it impoverishes posterity, for there will be a real transfer of resources to foreign countries at the time of repayment. This would reduce consumption, affect economic welfare by reducing the total amount of domestic resources available to the community. There will

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be a drain on the foreign exchange reserves too, if the export sector is inelastic. Therefore, it is suggested that external public debts be within limits, so that repayment does not impose a heavy burden on the debtor community. With inadequate export earnings and inelastic propensity to import, the borrowing country will face a great problem of repayment of foreign loans. In case of insufficient foreign exchange reserves, thus, the debtor country will be forced to raise additional foreign loans just for the sake of servicing the existing foreign debts, which in turn would increase the real burden (through additional taxation) on the succeeding generation. The posterity will, therefore, have to use a part of its current resources for servicing the debt (incurred by ancestors). As such, the future generation may be deprived of further improvement in its consumption, investment and welfare to that extent.

But, this always need not be so with external debts. Much depends on the purpose for which the debts is incurred. External debts incurred for war expenditure or such other unproductive uses will certainly add a net real burden to the community. In case of short-term external loans, however, the posterity escapes the burden, as the current generation will itself repay them. But, in case of long-term external loans and additional loans incurred for servicing them, the burden falls upon posterity, when the loans are of unproductive nature. If, however, external debts are incurred for productive investments in social and economic overheads or for the expansion of the export sector, the debtor country would gain various sorts of benefits and earnings, against which the real burden of such foreign debt will be nullified. When certain projects having a long gestation period, financed through external loans, start functioning in future, the posterity will reap the fruit of such economic growth and realise an additional income, so that it will be in a position to repay these debts without much loss or feeling any real burden. In fact, an external debt, incurred by the community for development purposes will not be a burden but a profitable venture.

Another significant point as regards external debt is that its repayment involves an increase in demand for the currency of the creditor country in terms of that of the debtor nation. In effect, the rate of exchange of the former's currency rises, causing a decline in the external value of the debtor country's currency. In real terms, therefore, the burden of the debtor country will rise and aggravate the problem of foreign exchange crisis further.

An adverse repercussion on the creditor country may also be visualised if the individuals of the creditor country tend to import more form the debtor country, induced by the de facto appreciation of their own currency. The growth of their domestic industries to some extent may be hindered and unemployment may result therefore, unless the situation is corrected by an appropriate domestic fiscal policy. This point, thus, sometimes makes the lender country cautions about the form of repayment of loans from the debtor country.

The indirect burden of an external debt, however, arises because of the check on production in the debtor community, firstly, on account of the disincentive effect of taxation that has to be imposed to meet the debt changes, and secondly, due to a contraction or check on the public expenditure (so necessitated) which otherwise would have promoted production activity. This indirect effect of external debt is, thus, similar to that of internal debt; as such, it has been discussed in detail in the following section.

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Burden of Internal Debt

The basic character of an internal debt is quite different from that of the external debt. In external debt, at the time of repayment there is real transfer of resources. In case of internal debt, however, since it is borrowed from individuals and institutions within the country, repayment will constitute only a redistribution of resources without causing any change in the total resources of the community. There can, thus, be no direct money burden caused by internal debts, since all payments cancel out each other in the aggregate community as a whole. Whatever is taxed from one section of the community for servicing the debts, is distributed among the bondholders by way of repayment of loans and interest; and quite often, the taxpayer and the bondholder may be the same person. At the most, to the extent that the incomes of taxpayers (in a sense, debtor) are reduced, so will the incomes of creditors/bondholders will increase, but the aggregate of the community will, nevertheless; remain the same.

However, internal debt may involve direct real burden to the community according to the nature of the series of transfer of incomes from taxpayers to the public creditors.

To the extent the taxpayers and the bondholders are the same, the distribution of wealth will remain unaltered; hence, thee will not be any net real burden on the community. There will, however, be a change in the distribution of income, when the bondholders and the taxpayers belong to different income groups, so that the transfers might increase or decrease the inequality of income. If this inequality of income increases, the net real burden of the community increase. That is to say, there will be a direct real burden of internal debts, if the proportion of taxes paid by rich is smaller than the proportion of public securities held by the rich. This usually happens in practice. Under the existing income inequalities in the society, the bulk of government securities are held mainly by the rich, and even a progressive taxation generally will be incapable of counter-balancing the incomes yielded by them from such securities. Thus, the resulting increase in inequalities imposes a net direct real burden (of an internal debt) on the community.

Moreover, the transfers of income involved in the service of an internal debt are, be and large, transfers from the younger to the older generations, and from the active to the inactive enterprises. The government imposes taxes on enterprise and earnings from productive efforts for the benefit of idle, inactive, old, leisurely class of bondholders. Hence, work and productive risk-taking efforts are penalised for the benefit of accumulated wealth, which certainly adds to the net real burden of debts.

Like external debt, internal debt also involves an additional and indirect real burden on a community, as the taxation required for the servicing of the debts tends to check production in so far as it reduces taxpayer's ability to work and save. Again, when heavy taxation is required to meet debt charges, the government might introduce economies in desirable social expenditure which may also adversely after the community's power and willingness to work and save, thereby reducing the general economic welfare to an extent.

It may, however, be argued that though the taxpayer's ability to work and save will be reduced by taxation raised for servicing the debts that of the creditors (bondholders) will be increased through the receipt of the debt payments; hence, in balance there will not be any indirect real burden on the community. But this may not be so. Because, where the debt involves a direct real burden, it is also probable that taxation will reduce more the personal efficiency and desire to work than the receipt of debt payment may

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increase the same. Thus, there will be a net loss in ability and desire to work, while the ability to save would be least affected by the transfer of income. Furthermore, the creditors class will not have any incentive to work hard by the prospect of receiving interest on bonds; on the contrary, it may make them more lazy and passive, reducing their desire to work further, which may, thus, causes a further loss to production and a further increase in the indirect burden of the debt.

In the case of external debts, the indirect real burden for a debtor country is, however, more evident as any effect of taxation in checking taxpayer's ability to work and save is irremediable. Because, a real transfer is involved in debt servicing and the resources are reduced in the community.

It has, thus, been suggested that the indirect real burden of public debt can, of course, be reduced by minimising the cost of servicing it, through maintenance of a low rate of interest. Further, instead of taxation, if new money is issued for servicing the debts, the adverse effect of high taxes would be avoided. Moreover, a right public expenditure, i.e., a productive government loan, which is created during a depression or to carry out public works programmes of building socio-economic overheads, will result in a rise in the ability to work, save and invest, thereby mitigating any indirect real burden imposed by taxation required for servicing of debts. Any public debts which are self-liquidating have, of course, least indirect real burden on the community.

Crowding-out Hypothesis

Burden of internal debt is visualised in terms of reduction in capital formation or output in the private sector under the 'Crowding-out Hypothesis.' It is argued that increase in government borrowings may reduce the private sector investment. For, when the government draws heavily on the pool of resources/funds available for investment in the economy, private investment may be crowded out.

The crowding out effect is resulted through rising interest rate. When the government tends to borrow more, the demand for funds/credit increases assuming a given demand for credit in the financial market by the private sector. The overall demand curve for credit shifts.

As a result, when (as in Figure 4.1.1), interest rate rise from R to R_1, the private demand for credit is reduced to OM_1 from original position OM.

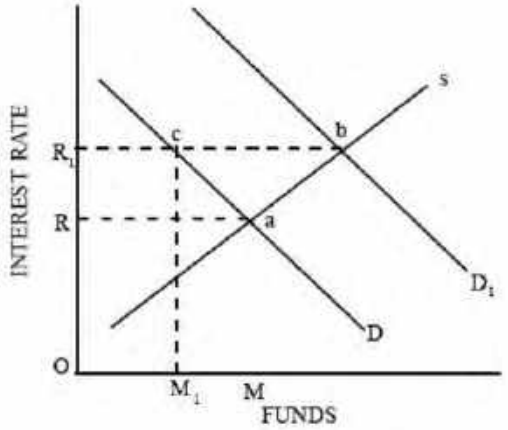

Fig. 4.1.1: Crowding-out Funds Hypothesis

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Another way of looking to the crowding-out possibility is that when the government increase its borrowings and resorts to captive market of government securities (GS) through raising of statutory liquidity ratios to be kept in terms of GS by the banking sector, the supply of lendable resources available for the private sector decreases which may cause rise in interest rate — meaning thereby private investment becomes more expensive with reduced size. See Figure 4.1.2.

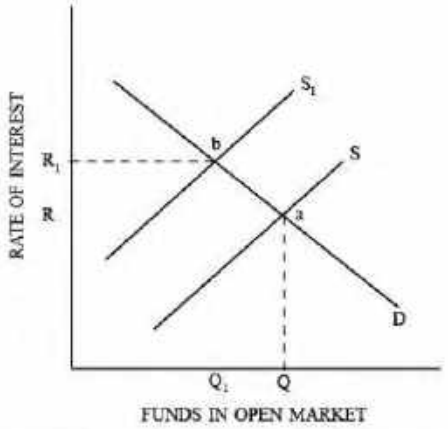

Fig. 4.1.2: Crowding-out Hypothesis

In Figures 4.1.2, when supply of funds in the open market shifts from S to S_1, due to transfer in captive market, rate of interest in open market rises from OR to OR_1, consequently the demand for private borrowings contracts from OQ to OQ_1.

In econometric analysis, crowding-out hypothesis is tested by examining the time-series data showing a relationship between the interest rate and public debt, as a proportion of GNP. The following simple regression equation to be estimated:

$$R_1 = b_0 + b_1 t + ut$$

where, R = rate of interest,

GB = government borrowings,

GNP = gross national product, and

t = time element.

b_1 regression coefficient is expected to have positive sign to suggest the rising effect of increasing public debt on the market rate of interest.

Empirical studies on this account have, however, shown varied and conflicting results. There is no conclusive evidence either to support or refute the crowding-out hypothesis. The theoretical case of crowding-out hypothesis, or at least, higher interest rate at under rising public debt cannot be undermined, thus.

4.1.7 MEASUREMENT OF DEBT BURDEN

To estimate the relative burden of national debts in a country at different times or in different countries at the same time, various methods have been put forward. However, most commonly adopted ones are:

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(i) The ratio of aggregate public debt to the national income β/Y where, β stands for the total public debt and Y stands for the national income. Apparently, if $\beta > \Delta Y$, the net relative burden increases.

(ii) The ratio of annual debt servicing changes to the national income, i/Y where, i stands for the debt charges (interest) paid annually and Y for the national income.

(iii) The ratio of debt servicing charges to total public expenditure in the current account of the budget: i/E where, E stands for public expenditure.

The burden of public debt should be viewed by comparing burden and benefits. Since public loans imply transfer of resources, the diversion of resources may turn over a gain or loss in social welfare. Gain is social benefits, loss is a burden. When the diversion of resources caused by a creation of public debt helps the increment in GNP, and the government automatically fetches adequate public revenue to repay loans, there is allocatory benefit of public benefit of public borrowings.

Similarly, an allocatory burden is created when government fails to yield adequate return from the uses of public debt and has to impose additional taxes which reduces consumption, production, etc., in its turn.

There are various methods of measuring and allocating benefits and burdens of public borrowings. Important methods in this context are:

(i) Interest payments ÷ Profits of public enterprises.

(ii) Interest payments ÷ Total tax revenues.

(iii) Service costs ÷ GNP

The Measurement of the Burden of Internal Public Debt

Internal public debt essentially implies a financial burden on the government. But, the size of the debt, by itself, does not indicate its true burden. To assess the burden of public debt, economists consider certain macroeconomic variables such as the national income, resources of the banking system, volume of private securities outstanding, etc. Thus, following ratios may be estimated in studying the burden of public debt.

1. Income-Debt Ratio: It is commonly adopted indicator of the strength and stability of the economy in relation to the public debt. It is estimated as follows:

$$\frac{\text{Size of Public Debt}}{\text{National Income (at current prices)}}$$

This ratio implies that a large size of public debt does not matter in the country with a high national income than to a country with a low income. A low income-debt ratio in a poor country is also indicative of its weak and unsound public finance in view of its abject poverty.

2. Debt-Service Ratio: This is the most significant ratio indicating the gross financial burden imposed by the public debt on the government's annual budget. This ratio is worked out as under:

$$\frac{\text{The Annual Interest Payments on the Public Debt}}{\text{The National Income (at current prices)}}$$

This ratio shows to what extent the government has to tax the national income in order to raise adequate revenue to pay the interest charges on debt.

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Since growth of national income is an index of rising taxable capacity of the country, rising interest bill will not be a problem if national income is rising at a faster rate.

3. Interest Cost-Revenue Ratio: This ratio is important for budgetary purposes. It is measured as follows:

$$\frac{\text{Debt Service Charges (Interest Cost)}}{\text{Aggregate Tax Revenue}}$$

It indicates the fiscal burden of the public debt.

4. Interest Cost-Public Expenditure Ratio: It is used to assess the extent to which the interest charges on public debt impinge upon the socially desirable public expenditure of the government. It is measured as follows:

$$\frac{\text{Annual Interest Payments}}{\text{Total Revenue Expenditure}}$$

It shows what proportion of revenue expenditure is just required for meeting debt servicing only. Increased public borrowings at high interest rates would lead to a rise in this ratio over the period of time.

5. Interest Cost Profits Ratio: This relates to the problem of productive use of the public borrowing. It is measured as follows:

$$\frac{\text{Interest Payments of Public Loans}}{\text{Profits of Public Sector Enterprises}}$$

It can be fruitfully worked out if the borrowed funds are used only on directly measurable productive industrial projects. But, in a developing country like India where the government allocates borrowed funds on social services, power generation, infrastructural development, etc., it is difficult to apply this measure.

Measurement of the Burden of External Debt

In empirical terms, the burden of external debt may be measured by estimating the following ratios:

1. **Debt Service Ratio:** It shows the extent to which the burden of debts services has increased/decreased over the period of time.
2. **Debt Service-Savings Ratio:** It relates to the competing claims of debt service and domestic capital formation on savings. A high or increasing debt service-savings ratio would mean decreasing availability of savings for domestic capital formation.
3. **Debt-National Income Ratio:** It shows external debt outstanding as a proportion of national income.
4. **Debt Service-Export Earnings Ratio:** It is a liquidity ratio. It shows how much proportion of export earnings will be needed for interest payments on external borrowings.
5. **Debt Service-Tax Revenue (DS-TR) Ratio:** A rising DS-TR ratio poses budgetary difficulty for the government.

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4.1.8 THE QUESTION OF SHIFTING OF THE BURDEN OF PUBLIC DEBT

There is a great deal of controversy as to whether the system of financing a project through public borrowings shifts the burden of debt to the posterity (i.e., future generation).

The traditional view maintains that to the extent which the government expenditure is financed through taxation or though printing of more notes, the present generation bears the burden; but is public borrowings are resorted to for this purpose, the present generation escapes the cost, and the burden is shifted, wholly or in substantial part, to the posterity who pays for the interest charges and the principal. At least, the present generation can make posterity to pay, by paying only the interest on present debts, but making no repayment of the principal of long-term debts, which obviously will mature in future. And, posterity does pay for the public debts as generations overlap; hence, when the government imposes additional taxes for servicing debts, in future, the posterity has to suffer a burden of such additional taxation. Consequently a deadweight loss is suffered by the future generation, when the debt financing (increased taxation) causes an adverse effect on incentive to work and save thereby checking production in future.

In this context, Ricardo and Pigou submit that when the public expenditure is financed through government loans, the present generation is likely to cut its real investment more and consumption less as individuals will feel richer by holding bonds with an unidentified future tax obligation. Consequently, a relatively smaller amount of capital stock will be bequeathed with the tax liability for debt services to posterity. As such the future output will be reduced, causing a decline in the welfare of posterity. In this way, the real burden of public debt is shifted to posterity.

Modern economists, including Keynes, however, hold an opposite view. They maintain that there is no shifting of the basic burden to the future, in the real sense. Because the same posterity which pays the additional taxes will benefit from the repayment of the debt. Just as future generations will inherit the obligation to pay interest and principal on the debt, they also inherit the claims of bond, and as such receive the interest payment and principal repayments themselves. It means the resources will be transferred within the future generation from taxpayer's class to the bondholder's class, involving no real burden on the posterity. It must, however, be noted here that if the taxpayers are the same as the bondholders in the future generation, the claims and obligations cancel each other, so no net real burden is imposed. But, if these two groups are distinct, the real costs of debt will fall on the next taxpayer class and the real benefits on the net interest receiver's class. Thus, if real costs exceed the real benefits in the relative sense, the net indirect real burden to some extent is experienced by the posterity. If, however, public loans are invested in self-liquidating assets, sufficient income will be yielded in future to cover debt charges, leaving no real burden on the posterity.

Regarding the primary burden of public debts, however, the classical view holds that it falls on the present generation, as it is measured in terms of a decline in the output in the private sector due to a transfer of resources embodied in the government loans to the public sector. Keynesian economics, however, professes that the classical view holds some water only under the condition of full employment. But, when there is underemployment in the economy, government borrowings will not encroach upon the resources available to the private sector, hence, the output in the private sector will not be

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reduced, so there is no primary burden of debts in the present as such. On the contrary, when effective demand improves on account of government spending, the investment function in the private sector may increase, so the output may rise further.

Recently however, Prof. P.M. Buchanan has put forward a thesis that the primary burden of public debts is always shifted to the posterity. In his opinion, the concept of primary burden should be interpreted in terms of the individual attitudes towards their economic well-being rather than in terms of changes in the private sector outputs. He, thus argues that when a project is financed through borrowings, the subscribers to the government loans do not suffer any burden in this sense, as they do not feel any adverse changes in the economic well-being as that time. Because, their subscription being voluntary, they just make a rational choice in favour of bolding wealth in terms of less liquid government securities instead of liquid assets (cash balances), without involving any burden or sacrifice. But, in future, however, when the debt is repaid by taxing the posterity, the resources are transferred from taxpayers to the bondholders, so that the taxpayers feel themselves worse off, but the bondholders are not better off since they just exchanged their bonds for cash. The effect is, thus, the posterior community becomes worse off to the extent of disutilities experienced by the taxpayers. In this sense, Buchanan concludes that the burden of public debt is shifted to posterity.

The Buchanan thesis, however, overemphasises the individual attitudes to the phenomenon. Furthermore, it is wrong to assume that when people get their bonds encashed, their satisfaction level does not change. Holding of cash certainly increases their liquidity position and they may realise an increase purchasing power, thus, an increase in real income, which would offset the loss of real income experienced by the taxpayers, because the total real output of the community is given at a time. Hence, no real loss is suffered by the posterity.

It is, thus, very difficult to accept a particular view on the issue. It may, therefore, be concluded that the question of shifting the burden of public debts to the posterity has remained yet an unsolved riddle.

4.1.9 MANAGEMENT/REDEMPTION OF PUBLIC DEBT

Meaning of Debt Redemption

Redemption is a way of escape from the burden of public debt. Redemption means repayment of a loan.

Redemption is quite distinct from repudiation. Repudiation means refusal to pay a debt by a state. It is an extreme form of clearing public debts, which constitutes a breach of contract when the government willfully flouts its obligations. Repudiation would, thus, causes a loss of public confidence in the government. It would disable the state in floating further loans. In the case of external debts, repudiation may provoke economic blockade, military action, etc., by the creditor sates against the debtor state. Normally, therefore, a government does not repudiate its debts. It is forced to resort to this measure only under exceptional circumstances. In 1917, for instance, the Soviet Communist government repudiated all Czarist debts, internal as well as external. So also, some states in the USA, before the Civil War (1861-65), had repudiated obligations to the English citizens.

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Modern governments incur mounting debts, and they rarely have enough resources to repay all of them. Debt redemption is, therefore very desirable. Otherwise, cumulative debts incurred by a government tend to make it bankrupt. Of course, the government can never become bankrupt in the ordinary sense; in the case of internal debts, it can always honour its obligations either through higher taxation or through printing of notes. In the case of internal debt, however, the government is said to have become bankrupt if it cannot borrow at the same or more favourable terms than those offered to other borrowers in the domestic money markets. In case of external debt too, when the government faces the same position, i.e., it when loses the confidence of foreign lenders in obtaining loans even at higher rate than that offered by other countries, the government may be said to have become bankrupt, even though it might not have resorted to repudiation measure. To avoid such complications, thus, the government has to redeem its debts from time to time.

Debt redemption, thus, has the following advantages:

1. It saves the government from bankruptcy.
2. It exercises a sort of check on the recklessness of the government.
3. It sustains public confidence, especially of potential lenders, in the government's creditworthiness.
4. It thus enables the government to float loans easily in future.
5. It saves the cost of dent administration and the cost of collecting taxes to service the debt.
6. It helps in sustaining a healthy climate for the private sector investment; as and when the government loans are repaid, resources may in turn be transferred to the private sector's productive efforts.
7. It can also serve as a deflationary measure. For, when taxation is raised to meet debt servicing, aggregate consumption expenditure might be curbed to some extent. Moreover, the money received by the debt holders in repayment of their debts may generally be reinvested by them rather than being spent on consumption.
8. Further, payment of debt improves public credit and makes lowering the rate of interest on public loans possible, so that burden of debt is lightened, which thus affords the means for reducing taxation.
9. It saves the posterity form shouldering the burden of debts, when it is redeemed at an early stage.

A modern government, thus, always makes increasing efforts to reduce the burden of debt though redemption of loans.

4.1.10 METHODS OF DEBT REDEMPTION

The chief methods usually adopted for the retirement or redemption of public debts are:

- Refunding.
- Conversion.
- Surplus budgets.
- Sinking fund.

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- Terminable annuities.
- Additional taxation.
- Capital levy.
- Surplus balance of payments.

Refunding: Refunding of debt implies the issue of new bonds and securities by the government in order to repay the matured loans. In the refunding process, usually short-term securities are replaced by issuing long-term securities. Under this method, the money burden of public debt is not relinquished but it is accumulated owing to the postponement of debt redemption.

Conversion: Conversion of public debt implies changing the existing loans, before maturity, into new loans at an advantage in servicing charges. In fact, the process of conversion consists generally in converting or altering a public debt from a higher to a lower rate of interest. A government might have borrowed at a time when the rate of interest was high. Now, when the rate of interest falls, it may convert the old loans into new ones at a lower rate, in order to minimise the burden. Thus, the obvious advantage of such conversion is that it reduces the burden of interest on the taxpayers. Furthermore, lower interest rates on public loans would mean a less unequal distribution of income.

The success of conversion, however, depends upon: (i) the creditworthiness of the government, (ii) the maintenance of adequate stocks of securities, (iii) the efficiency in managing the public debt.

Furthermore, for a successful conversion, the government will have to offer new low interest bearing bonds at a discount rate and which will have to be redeemed at dull value, causing thereby a capital appreciation (which may be even free of income tax). Ultimately, thus, the conversion does not benefit the treasury as the price of the bonds will have to be paid at a higher rate (i.e., at par, at the time of redemption) than its selling price, which in turn increases the liability of the government in future, for a capital sum greater than that borrowed will have to be repaid. Hence, conversion is no substitute for repayment, when a substantial reduction of burden of public debt is desired.

Dalton, as such, opines that debt conversion does not really relax the debt burden. Because, a reduction in interest rate reduces the ability of bondholders to pay taxes which may cause a reduction in public revenue, thereby reducing the government's capacity to redeem loans.

Surplus Budgets: Quite often, surplus budgets (i.e., by spending less than the public revenue obtained) may be utilised for clearing off public debts. But in recent years due to ever-increasing public expenditures, surplus budget is a rare phenomenon. Moreover, heavy taxes have to be imposed for realising a surplus budget, which may have dire consequences. Or, when public expenditure is reduced for creating a surplus budget, a deflationary bias may develop in the economy.

Sinking Fund: A sinking fund is a fund created by the government and gradually accumulated every year by setting aside a part of current public revenue in such as way that it would be sufficient to pay off the funded debt at the time of maturity. Perhaps, this is the most systematic and best method of redemption.

Sinking fund in essence is like a depreciation fund prudentially created. Under this method, the aggregate burden of public debt is least felt, as burden of taxing the people to repay the debts is spread evenly over the period of the accumulation of fund. The practice

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of a sinking fund inspires confidence among the lenders and the government's creditworthiness increase thereby.

Dalton, however, stresses that a sinking fund is to be made out of current revenue of the treasury and not out of loans, etc. A sinking fund which is filled by new loans is not a true sinking fund.

A sinking fund is, however, a slow process of debt redemption. Moreover, during an emergency or financial stringency, the government is tempted to encroach upon such funds.

In practice, however, sinking funds are not generally accumulated but some funds are earmarked each year for the retirement of some part of existing debts in the same year. For instance, the Government of India makes an annual provision of about ₹ 5 crores in the Union's revenue budget for reduction or avoidance of debt.

Terminal Annuities: This method of debt redemption is similar to that of the sinking fund. Under this method, the fiscal authorities clear off a part of the public debt every year by issuing terminable annuities to the bondholders which mature annually. Thus, it is the method of redeeming debts in installments. By this method, the burden of debt goes on diminishing annually and by the time of maturity it is fully paid off.

Additional Taxation: A simplest measure of debt redemption is to impose new taxes and get the required revenue to repay the loan principal as well as the interest.

This method cause redistribution of income by transferring the resources from taxpayers to the hands of bondholders. It may also impose a burden on the future generation if new taxes are levied to repay the long-term debts.

Capital Levy: Capital levy is strongly recommended by Dalton as a method of debt redemption with least real burden on the society. Capital levy refers to a very heavy tax on property and wealth. It is a once-for-all tax on the capital assets and estates.

In fact, capital levy was advocated immediately after World War I to repay the unproductive war debts. In the post-war era, a capital levy was justified on the following counts:

1. War debt is unproductive and is a dead-weight on the community. Hence, if it lingers on, its burden increase on account of heavy taxation imposed every year to clear it off gradually. Therefore, it is better to relinquish it once and for all by a special or capital levy.
2. Due to ear-time inflation, the profiteer class makes money, a sort of windfall gains, so it is easier for them to contribute to the capital levy, without feeling any pinch.
3. On the principle of ability-to-pay, again, a capital levy is quite justifiable. It thus satisfied the canon of equity.
4. It would help in ordering an equitable distribution of income in the society, as it tends to reduce inequalities in incomes and wealth.
5. It tends to syphon off the excessive spending power of the rich consumers, thereby to relieve the inflationary pressure in the economy to that extent.
6. The government should take advantage of post-war psychology. People in this era have the readiness to sacrifice. Government can, thus, exploit the situation and impose capital levy without causing any resentment, to pay off the matured debts.

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7. When public debt is relinquished outright through a capital levy it gives a psychological relief and happiness of having no more burden of public debt on the community. Thus, when people expect that there will be no more taxes in future, since the capital levy once and for all pays off the entire debt, he marginal efficiency of capital will be high, so an optimistic wave of business expectations will spread, leading to expansion and growth. Thus, it serves as a post-war recovery device, because the recipients of repaid loans will now tend to invest more in the private sector on account of healthy investment climate so created.

Dalton, however, suggests a capital levy even for redeeming a peace-time debt. A part from its social justice value, it provides for quick payment of loans and wipe out the burden of debt from posterity. It is also useful on account of its deflationary character.

The imposing of a capital levy for debt redemption is, however, opposed by many on the following grounds:

1. A capital levy may cause panic in the capital market. It would have dire economic consequences, when capital values are depressed and people's confidence is shaken.
2. It would involve a violent deflation of credit, and in the long-run a scaling down of wages and prices, resulting in a depressionary state of affairs.
3. A capital levy might discourage the inflow of foreign capital, so that the tempo of economic progress of the country may be slowed down on account of capital deficiency.
4. A capital levy seems to be a punishment on thrift, as those who saved and accumulated wealth are only taxed and those who had been extravagant exempted.
5. It might create a fear among the people that the government might be tempted to impose another special levy. The shadow of uncertainty so created would discourage the accumulation of capital, which inhibits the industrial expansion in future.
6. Above all, implementation of capital levy involves many administrative difficulties. There is the difficulty of finding out all material wealth and their values. Moreover, an exemption limit would have to be fixed. There may be the problem of tax evasion, too.

In short, the injurious effects bequeathed by capital levy are far greater than those of recurring annual taxation under the procedure of the sinking fund. Thus, though capital levy is a quick and equitable method of debt redemption, it is not advisable in preference to other methods. To quote Mrs. Hick: "A levy thus amounts to a major surgical operation on the body politic; it will be either a kill or cure, and very different in its effect from the regular dosage or massage applied by the normal tax structure."

Surplus Balance of Payments: The redemption of external debt, however, is possible only through an accumulation of foreign exchange reserves. This necessitates criterion of a favourable balance of payments by the debtor country by augmenting its exports and curbing its imports, thereby improving the position of its trade balance. Thus, the debtor country has to concentrate on the expansion of its export sector industries. Further, loan raised must be productively utilised, so that they may become self-liquidating, posing no real burden on the economy.

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In underdeveloped countries like India, where external debt has increased tremendously, it is necessary that its burden is reduced by changing the terms of repayment or by rescheduling the debts.

In short, the best redemption policy is that a part of public debt, internal as well as external, is redeemed every year, so that there is no mounting of the total real burden of debt upon the present generation or on the posterity.

4.1.11 THE ISSUE OF DEBT MANAGEMENT

Debt management is more important than the issue of debts of fulfill the budgetary requirements by a modern government. Treasury's debt management activity is basically concerned with the maturity structure of the debt and liquidity in the economy. The usual problem faced by the treasury is to deal carefully with the necessity of retiring old debt of maturity with proper refunding and reissuing new debt in a most advantageous manner, since the mode of government debt financing and management carries an important economic impact. Public debt management, in essence, refers to all measures which affect the composition of publicly held debt. The mode of changes in the maturity pattern of the government debt can be used as a means for bringing stability in the economy.

Debt policy as a monetary-fiscal device should stabilise economic growth. During an inflationary situation, the government should borrow more from the potential investors and thereby reduce their liquidity. At the same time, government's borrowings from the central bank should be reduced. The extent and size of debt depends on the budgetary decisions emerging from the final policy. A surplus budgetary policy implies a decrease in the public debt and a deficit budgetary policy causes an increase in the public debt.

Debt management relates to a purposeful distribution of old debt and new debt under different maturity periods. It can affect the liquidity and thereby the aggregate spending in the economy. Further, when the government increases long-term debt and decreases short-term debt the holdings of the liquid-assets base of the commercial banks are reduced and vice versa. The level and structure of interest rates can also be changed by changing the composition of debt.

Care must also be taken to minimise the "crowding-out effect" of public borrowings in a mixed economy. Usually, in the short-run at least, public borrowings and investment compete with the private sector for scarce resources — financial as well as physical, and thereby exert a negative influence on the private sector's borrowal and investment programmes. This is referred to as the "crowding-out effect."

Debt management involves such problems as the choice of types of securities to be offered by the government for raising the funds, and choosing the types of securities for retirement, decisions about the timing of the floatation of public loans, refunding of the maturing debt, and the rates of interest among other factors. While issuing new securities, the treasury has to resolve two basic issues: (i) the maturity period, and (ii) the rate of interest.

The economic impact of debt depends on: (i) the types of government securities; and (ii) who hold them and in what magnitude. Government securities may be short-term and long-term. These are held by the public, banks and the central bank. Short-term securities are regarded as more liquid than long-term securities. The amount of

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government securities held by the public implies a reduction in its purchasing power to that extent. But once the money so borrowed by the government is spent, the initial reduction is nullified.

To the extent government securities are held by the banking sector, its lending capacity is reduced. But the banks can borrow against these securities from the central bank and make up their lendable resources' position. Then it proves to be expansionary. W hen securities are sold to the central bank, the monetary base of the central bank is enlarged so that the bank is empowered to create an additional money supply. Increase in money supply consequently increases the total spending power in the economy which may cause a price rise. Thus, during an inflationary situation, selling of government securities to the central bank for public borrowings is not a very sound proposition. Likewise, short-term debt is also undesirable during inflation, because short-term securities are more liquid than long-term securities. To contain inflation, therefore, it is suggested that the average maturity period of government securities should be lengthened. In a recessionary situation, however, short-term debt is regarded as a desirable proposition.

Monetary policy and debt management are similar to the extent that both change the composition of the public's holdings of financial assets as well as their liquidity position through shifts between short- and long-term assets. When the government shortens the average maturity period of its debt outstanding, more liquidity is caused. Likewise, liquidity is also enhanced with the purchases of government securities by the central bank under its open market operations' policy. A debt management operation of the government affects the structure of interest rates but not the general trend of interest rates.

The crucial problem of government debt management is economic stability and growth. For this purpose, it is necessary to have a satisfactory cohesion and co-ordination between the treasury and the central bank for integration of debt management with monetary policy. It has been argued that limitless public debt tends to weaken the effectiveness of the monetary policy of the central bank. Therefore, it is necessary to have a co-ordination between debt management and monetary policy. This is essential to avoid the destabilising effect of public debt in the economy.

In a developing economy, the debt management policy contains some basic objectives such as: (a) healthy growth of government securities market; (b) raising sufficient funds for the government at minimum interest costs; (c) designing a suitable structure of debt maturity; and (d) promotion of growth with stability.

In a planned mixed economy such as India, a "fiscal-monetary mix" is to be devised for an effective co-ordination of the working of fiscal and monetary policies together. An appropriate mix of monetary and fiscal instruments is to be established. Open market operations, government deficits, interest rates structure, a mixture of short-term and long-term government securities, credit planning, monetary targeting and other policy instruments should be carefully devised in a planned manner co-ordinated with the general economic plan of the country. When fiscal and monetary policies work suitably in tandem, the crowding-out effect of increasing government expenditure and government debt is ruled out.

Debt management is not a small weapon in the arsenal of monetary-fiscal policy in a developing economy. Government debt policy is primarily determined by the fiscal authorities but it has to be in co-operation with the monetary authorities, especially, the

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central bank. The fiscal authorities in their budgetary exercises must decide continuously, their new borrowings and refunding operations, and the structure of government debt — internal and external, as well as maturities: long-, medium- and short-term, besides interest rates to be offered on the government securities. The fiscal authorities cannot manage their borrowing programmes without the co-operation of the central bank. A conflict arises when the central bank desires to have tight-money policy while the government continues to pursue an expansionary fiscal policy without maintaining fiscal discipline. Debt management is at least a minor but no less significant stabilisation and growth stimulating instrument in a developing mixed economy like India that is moving under the planned process of development.

There are often, differences emerging between the treasury and the central bank. The treasury usually focuses on minimising interest costs for public borrowings, while the central bank is more interested in price stability. The latter thus expresses a growing desire for tighter money to fight inflation; the former, on the other hand insists on cheap money policy to maintain low interest rates. Price stability should take precedence over treasury financing preferences. Debt management policy should, therefore, be subsidiary to monetary policy. Policymakers should adopt a proper subsidiary goal for maintaining an orderly sound money market for the rational allocation of funds in productive activity in the public and private sectors. Co-ordination of monetary and debt policy should be an element of co-ordinating process of monetary-fiscal policy mix in the country.

4.1.12 GOVERNMENT BORROWINGS: 1970-71 TO 1995-96

From the very inception of the plan period, the expenditures of both the central and state governments have been increasing faster than their "own resources." "Own resources" refer to tax receipts, non-tax receipts and surplus of public sector undertakings etc. consequently the governments have to meet their resource gap for development through borrowings from the public in various forms as well as through deficit financing.

Capital Receipts

Combined capital receipt (market-borrowings, small savings and state provident funds) increased from ₹ 2,611 crores in 1970-71 to ₹ 14,385 crores. As percentage of GDP it was about 6.00 in 1970-71 and rose to 9.00 in 1982-83. Capital receipts accounted for about 30.00 per cent of aggregate disbursements in 1970-71. However, it came down to 22.00 per cent in 1979-80 and reached the level of 26.00 per cent in 1983-84.

Combined capital receipts of the central and state governments on an annual average, during 1970-71 to 1974-75, increased by about 11.00 per cent, during 1975-76 by about 14.00 per cent and during 1980-81 to 1983-84 by about 21.00 per cent. On the other hand, on annual average, capital receipts as per cent of GDP were about 6.00 per cent during 1970-71 to 1974-75, about 7.00 per cent during 1975-76 to 1979-80 and about 8.00 per cent during 1980-82 to 1983-84.

Combined capital receipts during 1992-93 was ₹ 49,543 crores (7 per cent of GDP).

It increased to ₹ 89,742 crores (9.5 per cent GDP) in 1994-95. 1996-97 budget estimate was ₹ 83,936 (6.7 per cent of GDP).

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4.1.13 NEED FOR PUBLIC DEBT IN INDIA

The question of resorting to pubic debt arises as a consequence of faster growth in the expenditure of the government relatively to the growth of the revenue which the government can mobilise by way of taxes, non-tax receipts, surpluses of public sector undertakings etc. With the launching of successive five year plans, the public sector outlay for various developmental programmes envisaged in five year plans has moved up in every plan, more succinctly for the fifth and sixth plans, as indicated earlier.

The role of taxation in mobilising resources for the plan is considered crucial in India. In view of the concentration of the largest number of people in the lowest income brackets, the scope of enlarging receipts from direct taxation is limited and as a result, the emphasis on indirect taxation, especially commodity taxation in the form largely of excise duties, sales taxes and custom duties etc. has been increasing over the period of time. Besides, there are also certain administrative and political difficulties in adopting a policy of continuous rise in tax rates significantly. Both in the developed and the developing countries, there are certain limits beyond which taxation rates cannot be augmented without creating adverse effects on the investment level and production and consequently on the rate of economic growth.

From the long-term view point of maintaining stable economic conditions, and of equitably distributing the burden of economic development, the method of debt creation is being used as a method of financing the economic plans. It is because of limited availability of financial resources, on the one hand, and the need for increasing public investment for development of welfare expenditure, on the other that the volume of public debt has been rising and the debt policies are playing a very important role in the fiscal policies of the economy. However, the debt policy should be evaluated in terms of how far it is able to purchase the non-spending or illiquidity in the private sector. It is this effect of debt policy on the liquidity pattern which brings it near to the monetary policy.

However, in an economy like ours, it is very difficult to isolate the public debt problems from the basic problems of economic developments, such as the determination of the rate or the pattern of investment and the achievement of production targets specified under the plan. Loan financing for public projects has been accepted on the ground that the projects are of a productive character, so that the debt would be ultimately, liquidated and the projects would be of a self-financing character.

4.1.14 METHOD OF DEBT CREATION IN INDIA

The method of debt creation is being used as a method of financing the plan projects of the country. However, debt creation also meet some other wider objectives.

The increase in debt through issues of various types of securities encourages savings in the economy and helps checking an inflationary trend through the use of the open market operation policy.

In order to meet budgetary requirements of funds, the government issues various types of short and long-dated securities on the market. The government also issues non-marketable securities such as the savings bonds or treasury deposit receipts etc. The obligations of the Government of India may be broadly classified as follows:

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(i) Dated and non-terminable rupee loans
(ii) Treasury bills
(iii) Small savings
(iv) Other obligation including Provident Funds and some capital receipts
(v) External Debt.

The state governments meet their capital requirements through market borrowings. Unlike the central government, they cannot originally get finance through borrowing from the Reserve Bank except for short periods. At present, they do not issue any treasury bills. State Government Treasury bills have not been issued since January 1950.

The central government and the state governments issue securities either of three types or composite, viz., long-dated maturing 10 years, medium-dated maturing between 5 and 10 years and short-dated maturing within 5 years, separately, but through the Reserve Bank consolidated loans were, however, issued in 1954-55 and 1963-64.

The states are permitted to issue their own loans because, apart from the difficulty of allocating shares to the various states, they can use their local influence and tap local resources.

Normally, all the States enter the market on identical terms and at the same time.

A part from the state governments, the state owned and Centre owned institutions like State Electricity Board, Road Transport Corporations. State Financial Corporations, Industrial Development Bank of India, Industrial Finance Corporation of India etc. Also meet their requirements, to the extent possible through market borrowings. In the case of the central government institutions, the principal and the interest are guaranteed by the central government and in the case of state institutions by the state governments.

There are three principal forms in which the market loans of the government are floated, viz.,

1. Stock or Book Debt
2. Promissory Notes
3. Bearer Bond.

Stock Certificates

When debt is held in the form of stock, the lender is given a certificate to the effect of his registration in the book of the Public Debt Office as the owner of a certain amount of stock of a specified loan. In the certificate, the rate of interest and the debt from which interest is payable are also indicated. This certificate is known as Stock Certificate.

There is another form of stock in which debt can be held, i.e., in the form of a ledger account opened by the public debt office in the name of the holder in the subsidiary general ledger. No formal certificate of holding is issued to the account holder, who is simply advised of the opening of the account and the amount placed to the holder's account under different loans. Interest on holdings in subsidiary general ledger account is paid periodically in the same manner as on holdings in stock certificates.

While every person can hold a stock certificate which is only transferable by means of a transfer deed, the facility of holding government securities in a subsidiary general ledger account is restricted by the public debt office broadly to institutions which have a corporate status and to government officers who are corporations — sole, and whose total

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holdings justify the opening of such an account. At present, scheduled banks state co-operative banks, insurance companies, and other corporate bodies as well as officers who have, in law, the status of a corporate role, are at present permitted to open subsidiary general ledger accounts in the books of the public debt office provided the size of their holdings in government securities justifies the opening of such accounts. During the period of currency of a loan, an account holder can get the whole or a part of the balance under that loan held by him in his subsidiary general ledger account converted into government promissory notes or stock certificates.

A Stock Certificate is completely secure against loss by fire, theft etc. The transfer deed is executed to effect a change of ownership and it does not involve any stamp duty. Stock can be held by more than one person jointly but not severally and jointly held stock certificates can be transferred only by all the surviving holders jointly. Stock certificate is the only form of government security, which can be held by trustees of specified trusts or holders' offices other than public offices in the names of their offices.

Promissory Notes

A promissory note contains a promise by the President of India, or the (Governor of the State, as the case may be) to pay to the persons named therein, or to his or their order, a sum expressed in rupees either on a specified date or after certain notice, according to the terms of the particular loan to which it relates, and to pay to the holder interest thereon at a certain rate periodically on certain dates specified therein. It is a negotiable instrument payable to the order of a specified person(s) and transferable by endorsement. It can be held singly, jointly or in the alternative form payable to the order of either, or any one or more persons according to the wishes of the holders. Unlike a stock certificate, the promissory note is to be presented at the paying office for drawing interest.

Bearer Bonds

A security in the form of a bearer bond is, so far as government is concerned, the property of the bearer and its possession is sufficient to constitute ownership. A change in ownership is effected by delivery of the bond by the transferor to the transferee without any formality. Interest coupon is attached to each bond and payment of interest is made on due dates to the presenter of the relative coupons at the paying office. The essential characteristic of a bearer bond is the absolute freedom with which it can be negotiated. The Prize Bonds issued by the Government of India are a variant of the bearer bonds.

A certain number of bonds are selected by lot for prizes of specified amounts. The prize money won by a bond is exempt from income tax.

Other Forms of Government Securities

The other forms of Government Securities are as follows:

1. Treasury bills
2. National Defence/National Savings Certificates
3. Deposit Certificates
4. Annuity Certificates
5. Annuity Deposit Certificates
6. Zamindari abolition compensation bonds and rehabilitation grant bonds.

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7. Social Security Certificates
8. Capital Investment Bonds

1. Treasury Bills: Treasury Bills are the main instrument of short-term borrowing by the government, and serve as a convenient gilt-edged security for the money market. Normally, treasury bills are issued for a period of 91 days/3 months. A treasury bill is transferable by endorsement like a promissory note and can be sold to any person, firm or corporate body but in view of its short maturity, dealings in treasury bills are usually confined to institutional investors, like banks, insurance companies, and business firms. Since September 1966 treasury bills can also be held is SGL form by bank and other approved bodies. However, Treasury bills are issued to individuals in script form.

Treasury Bills are negotiable instruments and can be rediscounted with the Reserve Bank at any time before maturity upon terms and conditions determined by it from time to time. Since July 1965 Treasury Bills are being sold on tap at a rate to be announced by the Reserve Bank from time to time. The bills are issued in denominations of ₹ 25,000 and multiples thereof. The bills are sold at a discount and the full face value is paid to the holder on maturity, the difference representing the yield on the investment.

Since January 1950, Treasury Bills are issued only by the Government of India.

At present Treasury Bills are issued in two types, i.e., ad hoc Treasury Bills and ordinary Treasury Bills. The overall budgetary deficit of the central government is financed by borrowing through the issues of Treasury Bills and/or drawing down the cash balances with the Reserve Bank. Ad hoc bills are issued only in favour of the Reserve Bank for the purpose of replenishing the central government's cash balances maintained with it and are held only in the Issue Department of RBI. These bills carry the same discount rate and same maturity period. Ordinary Treasury Bills are sold to investors. Other than the RBI, throughout the year, on demand. The RBI rediscounts ordinary Treasury Bills from other investors and holds such bills both in the Issue and Banking Departments. A bill once rediscounted by the RBI is not sold back.

Treasury bills constitute the "Floating Component" of the public debt of the central government. The level of floating debt at any point of time is generally guided by the following considerations: (i) the central government's immediate additional financial requirements, (ii) the level of liquidity in the money market. Since neither the government nor the money market wishes to hold surplus cash, the Reserve Bank restores the equilibrium by selling to purchasing from the money market Treasury Bills as the situation demands.

Current Rupee Loans

Rupee loans are issued in the form of terminable and non-terminable loans. Rupee loans which the government have undertaken to repay either: (a) on a certain fixed date of (b) not earlier than a certain fixed date, are called Terminable or dated loans, while in case of non-terminable or undated loans there is no obligation on the Government to repay the loans on the expiry of a fixed period.

National Defence/National Saving Certificates, Deposit Certificates and Annuity Certificates etc. have been conceived as instruments for attracting small savings. These certificates are governed by the government's Savings Certificate Rules etc. These certificates are generally not transferable but nomination to enable money due on the

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certificates to be paid is permissible. However, the transfer of National Savings Certificates is permissible with the prior permission of the authorised post masters.

Zamindari Abolition Compensation Bonds and Rehabilitation Grant Bonds

The Zamindari Abolition Compensation Bonds and Rehabilitation. Grant Bonds have been issued by various state governments in payment of compensation and rehabilitation grants under their land tenure abolition enactments. These bonds have been issued in certain specified denominations by the Public Debt Office concerned and they are transferable by endorsement and delivery like government promissory notes.

Social Security and Capital-Investment Bonds

The social security certificates and Capital Investment Bonds are two new savings' instruments, recently issued by the Government of India to mobilise private savings for public use. In 1982, the social security certificates were first introduced. If the holder of these certificates die, the legal heir or nominee will get the full maturity value without having to wait for the maturity date. The certificates are issued in two denominations of ₹ 500 and ₹ 1,000 and for the period of 10 years. However, these can be encashed by the holder at any date after the first three years.

Capital Investment Bonds are also issued for ₹ 1,000 for the maturity period of 10 years bearing tax free interest of 7 per cent annum These bonds are transferable at any time after the date of issue by execution of a transfer deed.

4.1.15 SIZE OF PUBLIC DEBT

Total debt (Central and States) increased from ₹ 22,246 crores (₹ 9,510) crores of total internal debt) in 1970-71 to ₹ 76,234 crores (₹ 40,638 crores of total internal debt) in 1981-82. Total debt as percentage of GDP however declined from 55.00 in 1970-71 to 52.00 in 1981-82, while total internal debt as percentage of GDP increased from 24.00 in 1970-71 to 28.00 in 1981-82. Annual rates of growth of total debt and total internal debt (on average) during 1970-71 to 1981-82 were about 11.00 and 13.00 per cent respectively.

Size of Central Governments' Debt

Aggregate liabilities of the Central government increased from ₹ 19,864 crores (49 per cent of GDP) in 1971 to ₹ 68,349 crores (46.00 per cent of GDP) in 1982.

It increased to ₹ 5,38,610 crores by 1995 and 1997 budget estimated it to be ₹ 6,70,224 crores in 1993.

Internal debt increased from ₹ 7,663 crores (19 per cent of GDP) in 1971 to ₹ 35,726 crores (24 per cent of GDP) in 1982 and further to ₹ 2,66,467 crores by 1995 of which: treasury debt increased from ₹ 2,516 crores (6.00 of GDP) in 1971 to ₹ 13,864 crores, 19.00 of GDP in 1982 and ₹ 40,442 crore in 1995.

External debt increased from ₹ 6,465 crores in 1971 to ₹ 11,821 crores in 1982 and to ₹ 56,292 crores in 1995. However, it percentage with GDP declined from 16.00 in 1971 to 8.00 in 1982.

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4.1.16 MONETISATION OF PUBLIC DEBT

Central Government Securities

Initial cash contribution of the Reserve Bank to net borrowings was about 45.00 per cent in 1969-70 and it increased to 54.00 per cent in 1981-82. However, net sales through open market increased from ₹ 18.00 crores (13.00 per cent of net borrowings) in 1969-70 to ₹ 149.00 crores (5.00 of net borrowings) in 1981-82 with wide variations during the whole period. On an annual average, the bank contributed initially at about 44.00 per cent of net borrowings, while the bank was able to have net rates of securities through open market operations at about 25.00 per cent of net borrowings during 1969-70 to 1981-82.

Cash after net sales contributed by the Reserve Bank accounted for about 32.00 per cent of net borrowings in 1969-70. It rose to 26 per cent in 1979-80 and 49.00 per cent in 1981-82.

Size of States' Debt

Total debt increased from ₹ 8,749 in 1971 to ₹ 27,255 crores in 1982. But its percentage with GDP declined from about 22.00 in 1971 to 19.00 in 1982. Internal Debt also increased from ₹ 1,847 crores (4.6 per cent of GDP) to ₹ 4,912 crores (3.5 per cent of GDP) in 1982. Of which, ways and means advances from the RBI increased from ₹ 375 crores (0.9 per cent of GDP) in 1971 to ₹ 441 crores (0.3 per cent of GDP) in 1982 with variations from ₹ 621 crores (in 1972) to ₹ 78 crores (1973).

Loans and advances from the central government also increased from ₹ 6,365 crores in 1971 to 19,370 crores in 1982. However, its percentage with GDP dropped from 16.00 in 1971 to 13.00 in 1982.

Total Market Borrowings (Central and States)

Total market borrowings (Gross) of Central and State Governments increased from ₹ 585 crores during 1970-71 to ₹ 3,698 crores during 1981-82, while cash subscriptions accepted increased from ₹ 380 crores during 1970-71 to ₹ 3,423 crores during 1981-82.

RBI Holdings of Central Government Securities including Treasury Bills (Outstanding)

At the end of March 1971, the RBI holdings of dated securities and Treasury Bills accounted for about 65.00 per cent of total. It came down to 58.00 per cent in 1981.

On an annual average, the RBI's holding of government securities including Treasury Bills accounted for about 50.00 per cent of total during 1971-81.

RBI's holdings of dated securities increased from ₹ 1,486 crores (38.00 per cent of total RBI holdings) to ₹ 3,858 crores (28.00 per cent of total RBI holdings of Treasury Bills increased from ₹ 2,427 crores (62.00 per cent of RBI's total holdings) to ₹ 9,955 crores (72.00 per cent of RBI's total holdings) in 1981.

The Reserve Bank's Open Market Operations

Net sales as percentage of total holdings of RBI (own account) increased from 7.00 per cent in 1970-71 to 8.56 per cent in 1980-81 with wide variations during the period.

On an annual average, it was about 15.00 per cent of RBI's total holdings during 1970-1981.

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Government of India Treasury Bills

Sales of Treasury Bills to RBI accounted for about 86.00 per cent of total sales in 1970-71 and it came down to 36.00 per cent in 1981-82. Sales to commercial banks increased from 3.00 per cent in 1970-71 to 38.00 per cent in 1981-82. However, outstanding of Treasury Bills with RBI accounted for about 98.00 per cent of total in 1970-71 and about 97.00 per cent in 1981.82.

On an annual average, sales of Treasury Bills to RBI accounted for about 53.00 per cent of total sales and 92.00 per cent of outstanding Treasury Bills during 1970-71 to 1981-82. However, it may be noted that during 1971-78 about ₹ 775 crores (about 14.00 per cent of total increased amount of outstanding Treasury Bills held by the RBI), of Treasury Bills were funded into dated securities.

4.1.17 MANAGEMENT OF PUBLIC DEBT AND THE RESERVE BANK OF INDIA

The creation and management of the public debt determine the supply and demand for funds on the part of the state in the market at a certain time. As both the State and the private sectors for market borrowings have to draw on the total available supply of investible funds in the market, if the State tries to borrow more than the available supply at the current rate of interest, this leads to currency expansion. Thus, main issues in the management of public debt are: determining the total amount of issue of government securities, terms of issue and the timing of the issues. The maintaining of a healthy market in government securities is another important aspect of the management of public debt. However, the use of debt management as monetary instrument is also highly recognised.

The open market operations form an important instrument of monetary control and a link between the monetary and debt policy. Prior to the publication of the Radcliffe Committee Report in 1960s, the monetary use of public debt was advocated by many economists like Henry Simons, Milton Freidman and E.R. Ralph. Before, the war period, the objective of the open market operations, policy was to supplement the monetary policy and make it more effective in its impact on the money market. But during the war period, debt policy as a part of fiscal policy dominated the monetary policy. From the role of an instrument of monetary control, the open market operations help raising the necessary financial resources of the government through controlling and maintaining the prices of government securities on the market.

Central government's borrowing requirements are submitted to the Parliament through Annual Budget. Similarly, state government budgets indicate their estimate of public borrowings but these are finalised by the Ministry of Finance in consultation with the Planning Commission. The total amount of issue of government securities is fixed by the borrowing requirements of governments and other public sector institutions within the overall availability of funds. A view is taken of the growth of deposits, premium income of the bank and accretions to provident funds in order to decide the total size of the public borrowing programme in a year. Besides the estimate of available resources, the amount of central and state loans maturing for redemption during the year and the absorptive capacity of the market are also considered by the government and the bank to formulate the borrowing programme for the year. The borrowing requirements so

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estimated are finalised by the Planning Commission, Ministry of Finance and the Reserve Bank.

In view of the bank's close contacts and intimate knowledge of the financial markets, it is in a position to advise the central and state governments on the quantum, timing and terms of new issues of government securities. The Reserve Bank considers many factors like the seasonality in the growth of deposits, extension of credit, and new issues of private sector in the market in order to let the savings of the economy flow to different sectors in a smooth way. Besides, as far as possible, minimum amounts of issues are made at the time when the government food procurement operations are at their maximum. The needs of the borrowers including institutions whose public debt the Bank manages, for funds at particular time are also considered in choosing the timing of the issues.

So far as the terms of borrowings are concerned till recently, the policy was that the central government issues for a comparable maturity carried an interest which was 1/4 per cent lower than that on state government securities, which, in turn had to pay 1/4 per cent less than that which was paid by the State government-guaranteed institutions like SEBs and Housing Boards etc. The coupon rates on securities issued by central government-guaranteed institutions like IDBI and IFCI were same as those on programme has been phased out throughout the year. It may be observed that initial contributions of the Reserve Bank to issues of central government securities are gradually increasing over the period, probably due to less contributions of non-RBI institutions to flotations of loans during the slack season in the money market. During 1969-70 to 1981-82, the initial cash contribution of the Reserve Bank to the net market borrowings of the central government varies between ₹ 63 crores to ₹ 1,565 crores and the percentage of the same to the net market borrowings ranged between 22.00 to 64.00 per cent.

The ownership pattern of debt turns interesting light on the 'market' for government securities. During 1970-71 to 1981-82, the Reserve Banks holding of long-dated securities of Central government on an annual average were about 25 per cent of total amount of Central and State government securities. The Reserve Bank does not hold any state government security as present. The Reserve Bank's holdings of dated securities varied between 16.00 and 28.00 per cent of total of state and central securities during 1970- 71 to 1981-82. Commercial banks, Life Insurance and Provident Funds held as an annual average about 69.00 per cent of total outstandings of state and central securities during 1970-71 to 1981-82. Other categories including individuals and state governments held on an annual average about 6.00 per cent of total outstanding amount of central and state government during the same period. The proportion of total debt held by other categories excluding state governments, which is very less, has come down over the years. During 1970-71, it was about 9.00 per cent and came down to 5.00 per cent during 1981-82. Turning to central government securities, it may be observed that the Reserve Bank of India held about 28.00 per cent of total outstandings of central government securities as at the end of March 1982. Commercial banks held about 42.00 per cent of total outstanding followed by various provident fund schemes (12.00 per cent), Life Insurance Corporation of India (11.00 per cent) and other categories including state governments (7.00 per cent) as at the end of March 1982.

Regarding State government securities the Reserve Bank of India does not hold security at present, commercial banks were the major holders, namely 58.00 per cent of the total outstandings as at the end of March 1982, followed by various provident fund

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schemes (27.00 per cent), Life Insurance Corporation of India (14.00 per cent) and other categories including state governments (1.00 per cent). There should be a wide spectrum of owners of securities so that there can be a matching of buyers and sellers. This aspect is to a large extent absent in the Indian gilt-edged securities market, as revealed by the ownership pattern of debt. The government securities have become an important segment of the capital market. The importance of the role of the secondary market for government securities should be well recognised to widen the spectrum of ownerships of securities. The Reserve Bank should nurture a broadbased securities market through its public debt management. It is worthwhile to mention that debt management influence aggregate liquidity of the economy and the changes in the average maturity of the public debt is used as a measure of the influence of debt management on aggregate liquidity. Lenders, borrower and the manager of debt are interested in the widening of the market. Lenders, i.e., holders of government securities are scattered because marketability ensured liquidity. A widening of the market leads to increased marketability and this might facilitate the government in issuing a larger volume of debt. On then other hand, the Reserve Bank of India, i.e., manager of public debt is interested in a broad and active securities market because this enables the bank to conduct open market operations as a means of control and also to ensure the stability in bond prices. However, this raises the issue whether the government is willing to offer that rate of interest on securities which will make government securities readily marketable. If the government is not willing to do that, the widening of the market can be broadened only by the enlargement of the 'captive market.' However, a more attractive rate of interest on government securities will perhaps induce individuals and corporations to hold government securities. Besides, it is necessary for the government to readjust rates on securities, as market rates rise, in order to impair the financial viability of financial institutions which are major holders of government securities. It may be argued that the institutional holders of government securities may not be concerned with the absence of an active secondary market so long as the Reserve Bank is playing the role of 'buyer of last resort.' However, the Reserve Bank does not currently purchase any security against payment is cash, except in stray cases; purchases are made only in switch transactions. The reason is to prevent unchecked expansion of liquidity through monetisation of government debt. On the other hand, the objective behind fixing a quota for switch deals is also to check the excessive unloading of low yielding securities to the Reserve Bank.

Turning to maturity pattern of the public debt, it may be mentioned that changes in the average maturity of the public debt may be used as a measure of the influence of debt management on aggregate liquidity. The shorter the debt the closer it gets to money and consequently becomes more liquid. The maturity structure of the public debt can be changed either through new issues of debt of different maturities or without new issues, i.e., the average maturity of outstanding public debt becomes shorter as old debts approach their respective maturity dates. The maturity of public debt is lengthened through issues of debts of longer maturities than the average maturity of outstanding debts.

The data regarding maturity pattern of the Government of India rupee loans reveal that on an annual average the long-term securities (maturing after ten years and undated) accounted for about 60.00 per cent, medium-term securities (maturing between five and ten years) for about 18.00 per cent and short-term securities (maturing within five years) for about 20.00 per cent of total outstanding rupee loans during end of March 1971 to 1982. Long-dated securities covered about 71.00 per cent, medium-dated securities about

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16.00 per cent and short-dated securities about 13.00 per cent of total outstanding of rupee loans as at the end of March 1982, as against 49.00 per cent for long-dated, 14.00 per cent for medium-dated and 37.00 per cent for short-dated as at the end of March 1971. It may also be observed that during 1970-71, subscriptions accepted by the Government of India through issues of long-dated securities accounted for about 87.00 per cent of total subscriptions, while it came to 86.00 per cent during 1975-76 and 65.00 per cent during 1981-82. Medium-dated loans issued accounted for about 13.00 per cent, 14.00 per cent and 25.00 per cent of total subscriptions accepted during 1970-71, 1975-76 and 1981-82 respectively. Short-dated loans issued accounted for about 10.00 per cent of total subscriptions accepted during 1981-82. It may be observed that the government has lengthened the maturity of outstanding debt by issuing more of long-dated securities as issues of long-dated securities make it more convenient for the government to undertake investment projects with long gestation periods.

Regarding the maturity of state governments, securities it may also be pointed out that state governments generally issued securities maturing between 10 to 12 years during 1970-71 to 1981-82. A bout fifteen state governments issued securities of the maturity of 12 years during 1970-71 while about 21 state governments issued securities of the maturity of 10 years during 1975-76. A bout 20 state governments issued securities of the maturity of 12 years during 1981-82. A ll the state government securities were having the same period of maturity. However, during 1982-83 twenty one state governments entered the market with issues of securities having maturity period of 15 years, while during 1983-84 out of twenty one state governments, seven states, viz., Andhra Pradesh, Himachal Pradesh, Jammu and Kashmir, Karnataka, Meghalaya, Orissa and Uttar Pradesh floated 12 years loans at 8.25 per cent and the remaining 14 state governments floated 17 year loans at 8.75 per cent.

It may be noted that in order to minimise cash payments for the matured debts and thereby regulate the liquidity of investing public, some issues of new securities were offered on cash-cum-conversion basis. The conversion operations also satisfy the investor's needs for debt of different maturities and thereby maintain orderly conditions in the securities market.

The amount for conversion of central government loans, on an annual average, was about 22 per cent of total subscriptions accepted during the year over a period from 1970-71 to 1981-82. However, conversion amount as percentage of total subscriptions accepted varied from 44.00 to 6.00 during the same period. A mount of cash repayment as percentage of total subscriptions, on an annual average, was about 7.00 per cent during 1970-71 to 1981-82, while it had annual variations ranging between 20.00 to 2.00 per cent during the same period.

4.1.18 ADMINISTRATION RELATING TO PUBLIC DEBT

The management of the public debt of the central government is a statutory responsibility of the Reserve Bank. The management of public debt of all the state governments except Sikkim is also conducted by the Reserve Bank by virtue of the agreements entered into with them. The law relating to government securities is incorporated in the Public Debt Act, 1944 and the Public Debt Rules, 1946, the Public Debt (Annuity Certificates) Rules, 1954, and the Public Debt (Annuity Deposit Certificates) Rules, 1966. The procedure for dealing with the issue, conversion, renewal,

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interest payments etc., of/on government loans has been spelt out in the Government Securities Manual issued under the authority of the central government.

In the Reserve Bank, the Secretary's Department, Public Debt Office and the Securities Department and Central Debt Section are entrusted with works relating to the Public debt. The Secretary's Department attends to policy matters relating to the terms and conditions of the new loans such as the amount, date and method of issue, and the co-ordination of loan floatation's of the various governments. The matters relating to centralisation of the public debt accounts of the central and state governments, and preliminary arrangements for new loan floatation are attended to in the Central Debt Section in the Department of Government and Bank Accounts. The Secretary's Department also attends to the work relating to settlement of terms for market loans of quasi-public institutions, certain and cancellation of ad hoc Treasury Bills and open market operations.

The Public Debt Offices are entrusted with the actual transactions connected with the public debt. For purposes of efficient management, the transactions have been decentralised and entrusted to the Regional Public Debt Offices. All the branches of the banking department, except that in Bhubaneswar, have public debt offices.

For the management of the public debt of the government, the bank charges a commission at the rate of ₹ 2,000 per crore per annum, payable half-yearly, on the amount of public debt outstanding at the close of the half year for which the charge is made, after excluding certain specified items. In addition, the Reserve Bank charges a fee at the rate of ₹ 1,000 per crore of all new issues subject to minimum of ₹ 5,000 for each loan in respect of central government loans and ₹ 1,000 in respect of state government loans, besides recovering brokerage and expenses incurred by the Banks on account of printing of loan notifications, telegrams, trunk calls, advertisements etc.

Regarding Treasury Bills, the Reserve Bank, as the agent of the government, issues bills at a 'discount' only on tap, at present, throughout the week to commercial banks and the public. Treasury Bills constitute a significant proportion of the public debt of the central government. In the recent year, Treasury Bills formed about 38.00 per cent of central government internal debt. They increased from ₹ 2,516 crores (6.00 per cent of GDP) in 1971 to ₹ 13,864 crores (9.00 per cent of GDP in 1982. However, Treasury Bills do not enjoy a wide market. On an annual average sales of Treasury Bills to the Reserve Bank accounted for about 53.00 per cent of total sales and 92.00 per cent of outstanding Treasury Bills during 1970-71 to 1981-82. Other proportions are being held by the banks, other specified bodies and state governments. Whenever the balances of the state governments are in excess of the agreed minimum limits, the excess is temporarily invested in Treasury Bills.

Treasury Bills are rediscounted by the Reserve Bank for the state governments, banks and other approved bodies. In the case of the state governments, rediscounting of Treasury Bills held by them is undertaken before ways and means advances are granted to restore the minimum balances. The rate of rediscount is arrived at by adding ₹ 0.031 to the current rate of discount per annum earned on the relative bills. Normally, discount rates are adjusted to changes in the bank rate. At present Treasury bills are sold at ₹ 98.85 implying the rate of discount of ₹ 4.60 per cent.

The central government has been carrying the conversion of ad hoc Treasury Bills held by the Reserve Bank into dated securities. With this process of 'funding' of

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Treasury Bills the government has lengthened the maturities of the government obligations held by the Reserve Bank without any change in the quantum of the public debt. However, the cost of servicing the debt as a result of the higher rate of interest payable on the new dated securities has gone up. The conversion of ad hocs by the government was made out first in 1958-59, with the funding of ₹ 300 crores into 4 per cent loan in 1973, and it has been since an annual feature. In recent years Treasury Bills at about ₹ 100 crores were annually funded. However, in 1981-82 the face value of ₹ 3,500 crores were funded into special securities. The aggregate total of Treasury bills funded was about ₹ 5,475 crores at the end of March, 1982 while the outstanding of Treasury Bills held by the Reserve Bank were of about ₹ 9,955 crore during the same period.

It may be observed that 'funding' of Treasury Bills may be resorted in order to keep the Reserve Bank supplied with sufficient stocks of dated securities for the conduct of open market operations. The conversion of ad hocs by the government into special securities may not meet the above objective of funding operations. At present, funding operations are confined to ad hocs held by the Reserve Bank. Possibilities should be examined to cover other Treasury Bills held by non-Reserve Bank parties for conversion into long-dated securities. As a result this operation may induce banks and other bodies to restrict their regular habit of rediscounting Treasury Bills held by them with the Reserve Bank.

The Indian gilt-edged market is narrow. It is highly institutionalised. The bulk of the government securities is held by government-owned institutions. All these institutions come to the market mainly as investors, in order to meet their statutory obligations and to some extent for switch operations from short-dates to long-dates. Moreover, in the absence of a Treasury Bill market, open market operations are entirely in government bonds. At present, the Reserve Bank deals only in the securities issued by the central government and not in those of state government and local authorities. However, the narrow market precludes large-scale operations by the Reserve Bank since they would unduly disturb security prices. However, for a broad market what is required is a wide spectrum of owners so that at any given time there will be a large number of buyers and sellers. Unless the yields on government securities are made attractive to individuals and corporations, an active market cannot be built up. It may be observed that there is a limit to which the government can insulate the interest rates on government securities from other rates in the market without seriously eroding the profitability of those financial institutions, which are compelled to funnel their funds into government securities, and in the absence of active market these institutions face the problem of allocating funds between different government securities and approved securities.

National Debt Ceiling and the Public Sector Undertakings' Borrowings

The adaptation of the policy of economic planning in the country in 1951 made the debt policy as a significant part of the overall economic policy. The debt policy is used for achieving the wider objectives of economic planning. These objectives are achievement of a faster rate of economic growth, maintaining stability in prices and an efficient expansion of the money market. Growing reliance on market borrowings as a source of funds for meeting government expenditures should make for corresponding reduction in government's recourse to the Reserve Bank as the source of funds in order to check growth in base money and its snowballing effect on the supply of broader money.

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Further, an effort is always to be made by the state to relate the debt creation to real growth of the economy. The debt is to be incurred mainly for financing the productive investments under the Plans and thus it leads directly to an increase in investment and rise in production over the long-run period. This rise in investment in the public sector has the effect of raising investment in private sector and enables the economy to achieve a higher rate of growth.

The public debt has grown enormously, particularly since 1956. Total debt (central and states) increased from ₹ 22,246 crores (₹ 9,510 crores of total internal debt) in 1970-71 to ₹ 76,234 crores (₹ 40,638 crores of total internal debt) in 1981-82. Annual rates of growth of total debt and total internal debt) (on average) during 1970-71 to 1981-82 were about 11.00 and 13.00 per cent respectively while Gross Domestic Product at current market prices increased by about 11.08 per cent on an annual average during 1970-71 to 1981-82.

4.1.19 PROFILE OF PUBLIC DEBT IN INDIA

Under the fiscal management approach in a developing economy such as India, when there is a steep rise in current expenditures coupled with inadequate revenue buoyancy, as has been seen in the previous chapters, there tends to be an inevitable heavy dependence on public borrowings and resulting into large external and internal burden of public debt. In this section, a detailed analysis of the trends and implication of the public debt in India is attempted.

In India, public borrowing is a legally recognised source of government finance. Article 292 of the Constitution of India empower the Central Government to raise finance through borrowing upon the security of the Consolidated Fund of India within such limits, if any, as may be fixed by Parliament by law. However, despite several recommendations, no ceiling on public debt is laid down so far. In the Government of India, the department of Economic Affairs, Ministry of Finance, manages with Public Debt, market loans, interest on Central Government's borrowings and allied matters. The Public Debt of the Government of India comprises internal debt and external debt. Internal Debt refers to loans raised in the open markets; special securities issued the Reserve Bank of India, Compensation and other bonds and 15-year Annuity certificates, Treasury Bills issued to the reserve Bank of India, and non-interest bearing securities issued to international financial institutions. External Debt consists loans and credits made available on concessional, semi-concessional or commercial terms by multilateral development banks, donor countries, bilateral arrangements, and specialist United Nation's (UN) agencies, and by commercial banks either directly or through syndicated arrangements. Besides internal and external debt, the Government's other liabilities include funds raised through Small Savings Schemes, 5-year Time Deposits, Provident Funds, Reserve Funds and Deposits.

Over the year, the total liabilities of the Government of India have steadily increased, as indicated by data in Table 4.1.3. A welcome trend has been the declining trend of the external public debt and its interest burden.

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TABLE 4.1.3: INDIA: INTEREST ON OUTSTANDING INTERNAL LIABILITIES OF CENTRAL GOVERNMENT –

(₹ in crore)

Year	Outstanding Internal Liabilities	Interest on Internal Liabilities*	Average Cost of Borrowings (Per cent Per annum)
1990-91	2,83,033	19,664	8.2
1991-92	3,17,714	23.892	8.4
1992-93	3,59,654	27,546	8.7'
1993-94	4,30,623	33,017	9.2
1994-95	4,87,682	40,034	9.3
1995-96	5,54,984	45,631	9.4
1996-97	6,21,438	55,255	10.0
1997-98	7,22,962	61,527	9.9
1998-99	8,34,551	73,519	10.2
1999-00	9,33,000	85,741	10.3
2000-01	10,47,976	94,900	10.2
2001-02	11,96,245	1,0,3175	9.8
2002-03	13,23,704	1,13,238	9.5
2003-04(RE)	14,44,104	1,17,332	8.9
2004-05(BE)	16,21,245	1,26,870	8.8

Note: 1. Average cost of -borrowing is the percentage of interest payment in year 't' to outstanding liabilities in year't –1'.

2. Outstanding internal liabilities exclude NSSF loans to states, with no interest liability on the part of the centre.

* Excludes ₹ 313.61 crore and ₹ 4,079.62 crore towards premium on account of domestic debt buyback scheme and prepayment of external debt for 2002-03 and 2003-04 (RE) respectively.

Source: Budget documents, Government of India.

Central government liabilities in India constitute about 85 per cent of the total internal debt. A major portion of the liabilities comes from market borrowings of the government of India. The main instruments used in raising market loans by the central government are securities, bonds and treasury bills.

Available data of the World Bank reveal that India is one of the modest indebted countries, as at the end of March 1998 total external debt of India was around US 94.0 billion. The standard measures of debt sustainability ratios such as debt GDP ratio and debt-service ratio estimated to be 26.4 per cent and 19.5 per cent respectively. India's short-term debt amounting US5.0 billion in March 1998 accounted only 5.3 of total external debt. External stability is important for domestic stability in the global setting of

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the country. As such, the policymakers in India should not underscore the need for monitoring the maturity profile of debt, which has implications for debt redemption and foreign exchange resources, as well as the foreign exchange rates of the country.

4.1.20 GROWTH OF EXTERNAL DEBT

India's external debt has been rising substantially from 1980-81. The trend 1990 onwards is indicated by data in Table 4.1.4.

The debt service ratio, i.e., the ratio of interest payments and amortisation of foreign loan by Government of India, as a percentage of exports of goods and services was 8.7 per cent in 1981.

Debt servicing as a foreign exchange reserves has decreased from 30 per cent in 1990 to 18 per cent in 2004.

Data in Table 4.1.4 suggest that proportion of external debt in to the total public debt of India has steadily declined from 46.6 per cent in 1990 to 35.8 per cent in 2004.

Yet, comparatively India's external debt share is much higher than that in the case of Malaysia, In India external debt constitutes over one-third (more than 35 per cent) of total public debt, whereas in Malaysia it contributes less than one-fifth (less than 20 per cent) of the total public debt of the country. Figure 4.1.3 reflects a visual of the trend of high debt service ratios in India. Figure 4.1.4 refers to the growth of IMF credit to India. Since 2000 on wards, India did not require any IMF credit to manage its balance of trade (BOT) and CA D (current account deficit).

TABLE 4.1.4: INDIA: EXTERNAL DEBT (AS AT END MARCH)

(₹ crore)

Year	Long-term	Short-term Debt	Total External	Debt-GDP	Debt-Services Ratio (%)	IMF Credit
1	2	3	4	5	6	7
1990	117235	12964 (10.0)	130199 (46.6)	26.8	30.2	2572
1991	146226	16775 (10.3)	163001 (45.8)	28.7	35.3	5132
1992	232268	20642 (8.2)	252910 (45.2)	38.7	30.2	8934
1993	260942	19804 (7.1)	280746 (44.5)	37.5	27.5	14985
1994	279043	11375 (3.9)	290418 (44.3)	33.8	25.4	15812
1995	298237	13448 (4.3)	311685 (45.3)	30.8	26.2	13545
1996	304091	16637 (5.2)	320728 (44.8)	27	24.3	8152
1997	311674	24153 (7.2)	335827 (42.3)	24.5	21.2	4714

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1998	349753	19929 (5.4)	369682 (39.5)	24.3	19	2622
1999	393160	18137 (4.4)	411297 (38.5)	23.6	17.8	1218
2000	411388	17162 (4.0)	428550 (38.9)	22.1	16.2	113
2001	454805	16919 (3.6)	471724 (35.5)	22.6	17.2	0
2002	468512	13396 (2.8)	481908 (36.0)	21.1	13.9	0
2003	476888	21705 (4.4)	498593 (36.8)	20.2	15.1	0
2004	468591	20577 (4.2)	489168 (35.8)	17.6	18.3	0

Source: External Debt Management Unit, Ministry of Finance and Reserve Bank of India.

Figure in the parentheses refer to percentage share in the total.

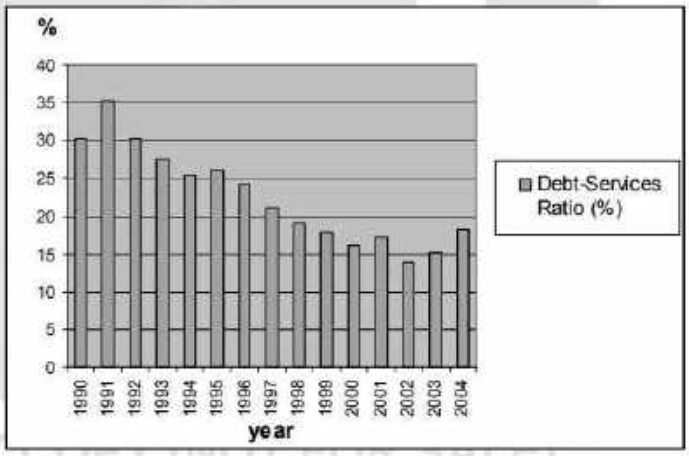

Fig. 4.1.3: India: Trends in External Debt-GDP Ratios

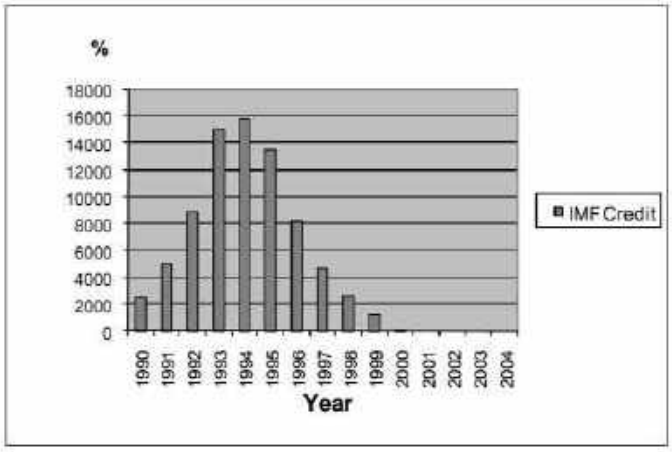

Fig. 4.1.4: India: Trends in IMF Credit

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Data in Table 4.1.3 pertaining to the outstanding internal liabilities of the government of India. A sharply rising trend is noticeable. The average cost of borrowings, i.e., the percentage of interest payment in current year to outstanding liabilities in the previous year has been varnishing around 9 per cent, over the years.

4.1.21 CONCLUDING REMARKS

W hen the public debt is not productively utilised it will cause a serious problem in a developing country such as India or Malaysia. An effective public debt management implies productive use of the resources raised, along with a substantial and sustained growth of exports, effective import substitutions and better fiscal management overall including a sound fiscal system, smooth budgetary process, improved accounting methods, internal central and performance evaluation, besides time to time monitoring of the growth of public debt.

Nonetheless, the huge borrowings in the past have added to the debt-servicing burden on the government. As a result, an increasing trend of debt servicing liabilities is seen during the 1970s and 1980s. A declining trend has appeared in the 1990s as an avowed policy of debt management. In 1991, debt servicing claimed 24.9 per cent of operating expenditure and 18.6 per cent of total government expenditure. This declined to 15.6 per cent and 11.6 per cent respectively in 1996.

In the New Economic Order of the 21st century, it is necessary for developing countries such as Malaysia and India to monitor both public and private debt. The countries should disseminate debt information and debt in a transparent way to assure the creditors confidence in the fiscal management policies and actions of the concerned countries.

India's fiscal sector position during the eighties was characterised by an accumulation of huge debt (Reserve Bank of India, 2000). In 1990s, the Government of India when attempted to correct this position had to contend with a number of structural and cyclical constraints. Nonetheless, the government did continue on pursuing consistent fiscal reforms into sharp focus.

4.1.22 SUMMARY

Public borrowing or public debt as an instrument of fiscal policy is of recent origin. As mentioned in the Encyclopaedia Britannica, public debt refers to "obligations of government, particularly those evidenced by securities, to pay certain sums to the holders at some future date." In fact, public debt is considered when the government floats loans and borrows from the public. Government needs to brow when current revenue falls short of public expenditures.

There are two major sources of public borrowings: (i) internal and (ii) external. The following are the objects of public borrowings: (1) To fill up the gap between anticipated public expenditure and current public revenue. (2) To seize away excessive purchasing power from the public during an inflationary period. (3) To overcome depression by spending more through the creation of public debt. (4) To finance developmental plans. (5) To meet war finance.

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The economic effects of public borrowing, by and large, differ with the different sources of borrowed funds. An elucidation of this may be made as follows: (1) When the government borrows from the general public. (2) The government bonds in a country are also purchased by the non-banking financial institutions like insurance companies, trusts etc. (3) In a way, it is a state borrowing from commercial banks, when the banks subscribe to government loans. (4) Similarly, when the central bank subscribes to the government loans, which will be paid out to its creditors by the government, it is, in effect, analogous to printing more notes. (5) External borrowings are the helpful in many ways.

Refunding of debt implies the issue of new bonds and securities by the government in order to repay the matured loans. In the refunding process, usually short-term securities are replaced by issuing long-term securities. Under this method, the money burden of public debt is not relinquished but it is accumulated owing to the postponement of debt redemption.

The success of conversion, however, depends upon: (i) the creditworthiness of the government, (ii) the maintenance of adequate stocks of securities, (iii) the efficiency in managing the public debt.

Rupee loans which the government have undertaken to repay either: (a) on a certain fixed date of (b) not earlier than a certain fixed date, are called Terminable or dated loans, while in case of non-terminable or undated loans there is no obligation on the Government to repay the loans on the expiry of a fixed period.

The social security certificates and Capital Investment Bonds are two new savings' instruments, recently issued by the Government of India to mobilise private savings for public use. The management of the public debt of the central government is a statutory responsibility of the Reserve Bank. The management of public debt of all the state governments except Sikkim is also conducted by the Reserve Bank by virtue of the agreements entered into with them.

The selective comparison of internal experience in interest rate behavior reveals the fact that the interest offered on government securities in India has been fixed at a very low rate.

The bank's purchase and sale of securities are more or less on a continuing basis. In general the bank is an outright buyer of short-dated securities and outright seller of long-dated securities and new issues. The bank does not currently purchase any security against payment in cash except in stray cases; purchases are made only in switch transactions. Through its switch operations the bank meets the shifting preferences of investor's mainly commercial banks, in the securities market. However, the secondary market for government securities is very narrow. The RBI has no special dealer like that of the Bank of England to hold inventory of securities with borrowed funds and or brokers to undertake open market rate.

GDP growth rate should be higher than the real interest rate so that the debt/GDP ratio can be sustained. In addition, adequate primary surpluses are to be generated to offset the gap between the interest rate and the GDP growth rate. Under the current Indian fiscal situation, thus, the size of government market borrowing and the interest rates structure crucially matters as major fiscal variables in the pursuit of debt/GDP stability of the country.

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The fiscal operations of the government of India entailed an unusually high proportion of the structural deficit component in the rising magnitude of its gross fiscal deficits over the years. The persistence of high deficit/GDP ratios implied high debt/GDP ratios in consequence is an indicator of unsound fiscal management of the country. There has been raising concerns like the problem of sustainability of debt in the wake of declining public investment in the long-run, crowding out of private savings for current consumption of the government and towards high costs of debt servicing.

4.1.23 SELF ASSESSMENT QUESTIONS

1. What is Public Borrowing? Discuss in details.
2. Explain the trends in public debt.
3. Discuss the burden of public debt.
4. Explain the economics of public debt.
5. Explain the methods of debt management
6. Explain the traditional debt and G/P debt.
7. Discuss the relation between debt management and economic stability.
8. Discuss the public borrowing and development finance.

4.1.24 # Key Terms

Government Debt: The total amount of money owed by the government to creditors, accumulated through borrowing to finance budget deficits and other expenditures.

Treasury Bonds: Long-term debt securities issued by governments to raise funds, typically with maturities ranging from 10 to 30 years. Bonds pay periodic interest to investors and return the principal amount at maturity.

Treasury Bills (T-Bills): Short-term debt securities with maturities typically ranging from a few days to one year, issued by governments to raise short-term funds. T-bills are sold at a discount to face value and do not pay periodic interest; instead, investors earn a return by purchasing them at a discount and receiving the full face value at maturity.

Government Securities: Financial instruments issued by governments to raise capital, including treasury bonds, treasury bills, and treasury notes. These securities are considered low-risk investments because they are backed by the creditworthiness of the government.

Sovereign Debt: Debt obligations incurred by a national government, often denominated in its own currency but may also include foreign-denominated debt. Sovereign debt is typically backed by the government's ability to tax its citizens and its power to raise revenue.

Debt Servicing: The process of repaying principal and interest on government debt. Debt servicing includes making regular interest payments and redeeming maturing debt securities.

Credit Rating: An assessment of the creditworthiness of a government's debt securities, assigned by credit rating agencies based on factors such as economic stability, fiscal policies, and debt levels. Higher credit ratings indicate lower default risk and may result in lower borrowing costs for the government.

Fiscal Deficit: The amount by which government expenditures exceed revenues in a given period, leading to the accumulation of debt. Fiscal deficits are often financed through borrowing.

External Debt: Debt owed by a government to foreign creditors, denominated in foreign currencies. External debt exposes the government to risks associated with exchange rate fluctuations and foreign investor sentiment.

Domestic Debt: Debt owed by a government to domestic creditors, typically denominated in the national currency. Domestic debt may include treasury bonds, treasury bills, and loans from domestic financial institutions.

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4.2 Chapter

BUDGET

Objectives

After completing this chapter, you will be able to:

- Understand the concept of Budget
- Know the purposes of Budget
- Understand the principles of Budget
- Know the types of Budget

Structure:

4.2.1 BUDGET

A budget is defined as the formal expression of plans, goals, and objectives of management that covers all aspects of operations for a designated time period. The budget is a tool providing targets and direction. Budgets provide control over the immediate environment, help to master the financial aspects of the job and department, and solve problems before they occur. Budgets focus on the importance of evaluating alternative actions before decisions actually are implemented.

4.2.2 PURPOSE OF BUDGETING

(i) Communication: In the budgeting process, managers in every department justify the resources they need to achieve their goals. They explain to their superiors the scope and volume of their activities as well as how their tasks will be performed The communication between superiors and subordinates helps affirm their mutual commitment to company goals. In addition, different departments and units must communicate with each other during the budget process to co-ordinate their plans and efforts. For example, the MIS department and the marketing department have to agree on how to co-ordinate their efforts about the need for services and the resources required.

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(ii) Co-ordination: Different units in the company must also co-ordinate the many different tasks they perform. For example, the number and types of products to be marketed must be co-ordinated with the purchasing and manufacturing departments to ensure goods are available. Equipment may have to be purchased and installed. Advertising promotions may need to be planned and implemented. And all tasks have to be performed at the appropriate times.

(iii) Planning: A budget is ultimately the plan for the operations of an organisation for a period of time. Many decisions are involved, and many questions must be answered. Old plans and processes are questioned as well as new plans and processes. Managers decide the most effective ways to perform each task. They ask whether a particular activity should still be performed and, if so, how. Managers ask what resources are available and what additional resources will be needed.

(iv) Control: Once a budget is finalised, it is the plan for the operations of the organisation. Managers have authority to spend within the budget and responsibility to achieve revenues specified within the budget. Budgets and actual revenues and expenditures are monitored constantly for variations and to determine whether the organisation is on target. If performance does not meet the budget, action can be taken immediately to adjust activities. Without constant monitoring, a company does not realise it is not on target until it is too late to make adjustments.

(v) Evaluation: One way to evaluate a manager is to compare the budget with actual performance. Did the manager reach the target revenue within the constraints often targeted expenditures? Of course, other factors, such as market and general economic conditions, affect a manager's performance. Whether a manager achieves targeted goals is an important part of managerial responsibility.

4.2.3 PRINCIPLES OF BUDGETING

A. Principle of Planning. This section focuses on the need to ensure that capital assets support core/priority missions of the agency; the assets have demonstrated a projected return on investment that is clearly equal to or better than alternative uses of available public resources; the risk associated with the assets is understood and managed at all stages; and the acquisition is implemented in phased, successive segments, unless it can be demonstrated there are significant economies of scale at acceptable risk from funding more than one segment or there are multiple units that need to be acquired at the same time.

B. Principle of Costs and Benefits. This section emphasises that the asset should be justified primarily by benefit-cost analysis, including life cycle costs; that all costs are understood in advance; and that cost, schedule, and performance goals are identified that can be measured using an earned value management system or similar system.

C. Principles of Financing. This section stresses that useful segments are to be fully funded with regular or advance appropriations or both, enforced by a proposed new Budget Enforcement Act scorekeeping rule; that as a general rule, planning segments should be financed separately from procurement of the asset; and that agencies are encouraged to aggregate assets in capital acquisition accounts and take other steps to accommodate lumpiness or "spikes" in funding for justified acquisitions.

D. Principle of Risk Management. This section is to help ensure that risk is analysed and managed carefully in the acquisition of the asset. Strategies can include separate accounts for capital asset acquisitions, the use of apportionment to encourage sound management, and the selection of efficient types of contracts and pricing

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mechanisms in order to allocate risk appropriately between the contractor and the Government. In addition cost, schedule, and performance goals are to be controlled and monitored by using an earned value management system or a similar system; and if progress toward these goals is not met there is a formal review process to evaluate whether the acquisition should continue or be terminated.

1. **Core Value:** The strategic vision of the College and its departments reflects a commitment to core educational responsibilities. State budget allocations to departments and other units will reflect the commitment to these responsibilities.
2. **Budget Clarity:** The Dean will provide departments with comprehensive information on university and college state and non-state funding as well as information concerning their individual departmental budgets. Reasons for changes in departmental allocations will be made explicit to departments.
3. **Budget Flexibility:** The College will seek to provide departments and other units with the financial flexibility to: (i) pursue the unit's strategic goals, (ii) respond to routine internal budget needs and (iii) help address department start-up and matching responsibilities. Sources of potential flexibility are indicated with an asterisk (*) below.
4. **Authorised Budgets:** The College and its departments and other units are required to operate within their respective authorised budgets.
5. **Baseline Budgeting Principles:** The College's first budget priority will be to provide sufficient resources to departments to allow them to meet core educational responsibilities. Peer benchmarks and other data will be used to establish department-specific baseline budgets.
6. **Budget Expansion, Reallocation and Reduction Principles**
   (a) Budget expansions and reallocations will be directed towards accomplishing the College's strategic goals.
   (b) To the extent possible, the College will strive to be responsive to unexpected opportunities that arise.
   (c) The College will implement any required reductions by targeting cuts that are consistent with the strategic goals.

4.2.4 BUDGET AS AN INSTRUMENT OF ECONOMIC POLICY

There is a growing consensus that public expenditure management is a political, rather than a simply technocratic, process. Studying the politics of the budget process essentially means examining the ways in which the distribution of power within that process affects the subsequent distribution of public resources. From a social theory perspective, this has two key dimensions – power as formal structures, and power as the informal incorporation of dominant norms and values into operating procedures and practice. In any given process of budget formulation and execution, unequal power relations may be expressed by: inclusion/exclusion or proximity by different social groups to the decision-making process; norms and values explicitly expressed in the statement of purpose and implicitly embedded in the priorities and assumptions contained within the process, structure and content of the budget. Power also plays a significant role in the legitimating of knowledge, and in determining who has access to information which guides decision-making.

The prevailing balance of interests and pressures in any system of public expenditure management is unlikely to reflect a pro-poor, gender-equitable, orientation in

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any simple sense. It is also unlikely to reflect an uncomplicated commitment to sharing information about the process, and including the excluded in decision-making. It is very likely that attempts to move in this direction will run into both overt and covert resistance, with adoption of formal commitments to policy goals by governments being insufficient to guarantee meaningful change. Ideally, therefore, for a development actor to understand the politics of a given budget process it would be valuable to have information about the following:

(a) The formal structure of roles and responsibilities within the budget process;

(b) The formal rules governing decision-making, political choice and accountability within the public expenditure management system;

(c) The networks of stakeholder power and influence, which influence the outcomes of the budget process;

(d) Incentives for action affecting the decision-making of politicians and officials during budget formulation and execution;

(e) The latitude for independent discretionary action of bureaucrats at all levels of the budget execution process;

(f) The norms and values prevailing in key institutions within the budget formulation and execution process.

Types of Budget/Programme Budgeting

Various types of Budget are as follows:

(i) Sales Budget
(ii) Production Budget
(iii) Purchase Budget
(iv) Expenditure Budgets
(v) Cash Budget
(vi) Master Budget
(vii) Zero Base Budgets

(i) Sales Budget: Sales budget is a functional budget. The product wise as well as regional breaks up of sales estimates are incorporated in the sales budget. The sales budget begins with the previous year actual and incorporates the likely changes.

(ii) Production Budget: The production budget is prepared based on the sales estimate incorporated in the sales budget. The adjustments with respect to the opening and closing stock positions that are policy decisions of the business are then made to prepare the production budget.

(iii) Purchase Budget: The purchase budget is another functional budget that estimates the purchase requirement of materials utilised in the production process. The purchase budget is based on the production budget and the standard material consumption requirement for the production estimates.

(iv) Expenditure Budgets: Expenditure budgets may be drafted as fixed/flexible budgets. A fixed budget is one which is prepared keeping in mind one level of activity. It is defined as one which is designed to remain unchanged irrespective of the level of activity attained.

(v) Cash Budget: A cash budget consolidates all the cash inflows and outflows for the business.

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The cash budget is also a functional budget. The cash budget helps the business to plan the project purchases as well as to provide for the loan requirements. The cash budgets also help in defining the repayment plans for short- and long-term loans of the business.

(vi) Master Budget: The overall or master budget summarises the other functional budgets.

Consolidating the functional budgets, an income and expenditure budget and budgeted balance sheet are prepared. The master budget is usually a one-year budget expressing the expected asset position and capital and liability positions for the projected year.

(vii) Zero Base Budgets: A n illustration of a long-term budget is the Zero base budget. Zero Base Budgeting process looks at requirements/ plans anew each year irrespective of project continuity. These are necessarily long-term project budgets.

A budget is a financial plan and a list of all planned expenses and revenues. It is a plan for saving, borrowing and spending. A budget is an important concept in microeconomics, which uses a budget line to illustrate the trade-offs between two or more goods. In other terms, a budget is an organisational plan stated in monetary terms.

Economic policy refers to the actions that governments take in the economic field. It covers the systems for setting interest rates and government budget as well as the labour market, national ownership, and many other areas of government interventions into the economy. Such policies are often influenced by international institutions like the International Monetary Fund or World Bank as well as political beliefs and the consequent policies of parties.

Economic Policy is generally directed to achieve particular objectives, like targets for inflation, unemployment, or economic growth. Sometimes other objectives, like military spending or nationalisation are important. These are referred to as the policy goals: the outcomes which the economic policy aims to achieve. To achieve these goals, governments use policy tools which are under the control of the government.

These generally include the interest rate and money supply, tax and government spending, tariffs, exchange rates, labor market regulations, and many other aspects of government.

(i) Selecting tools and goals: Government and central banks are limited in the number of goals they can achieve in the short-term. For instance, there may be pressure on the government to reduce inflation, reduce unemployment, and reduce interest rates while maintaining currency stability. If all of these are selected as goals for the short-term, then policy is likely to be incoherent, because a normal consequence of reducing inflation and maintaining currency stability is increasing unemployment and increasing interest rates.

(ii) Demand-side vs. supply-side tools: This dilemma can in part be resolved by using microeconomics, supply-side policy to help adjust markets. For instance, unemployment could potentially be reduced by altering laws relating to trade unions or unemployment insurance, as well as by macroeconomic (demand-side) factors like interest rates.

Budget and Economic Policy

1. Gross Domestic Product (GDP) estimated to have grown at 8.6 per cent in 2010-11 in real terms. Economy has shown remarkable resilience.
2. Continued high food prices have been principal concern this year.

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3. Consumers denied the benefit of seasonal fall in prices despite improved availability of food items, revealing shortcomings in distribution and marketing systems.
4. Monetary policy measures taken expected to further moderate inflation in coming months.
5. Exports have grown by 29.4 per cent, while imports have recorded a growth of 17.6 per cent during April to January 2010-11 over the corresponding period last year.
6. Indian economy expected to grow at 9 per cent with an outside band of +/–0.25 per cent in 2011-12.
7. Average inflation expected lower next year and current account deficit smaller.

Sustaining Growth

(a) Fiscal consolidation

(i) Fiscal consolidation targets at Centre and States have shown positive effect on macroeconomic management of the economy.

(ii) Amendment to Centre's FRBM Act, 2003 laying down the fiscal road map for the next five years to be introduced in the course of the year.

(iii) Proposal to introduce the Public Debt Management Agency of India Bill in the next financial year.

Tax Reforms

(i) Direct Taxes Code (DTC) to be finalised for enactment during 2011-12. DTC proposed to be effective from April 1, 2012.

(ii) Areas of divergence with States on proposed Goods and Services Tax (GST) have been narrowed. As a step towards roll out of GST, Constitution Amendment Bill proposed to be introduced in this session of Parliament.

(iii) Significant progress in establishing GST Network (GSTN), which will serve as IT infrastructure for introduction of GST.

Expenditure Reforms

(i) A Committee already set up by Planning Commission to look into the extant classification of public expenditure between plan, non-plan, revenue and capital.

Subsidies

(i) Nutrient Based Subsidy (NBS) has improved the availability of fertilizer; Government actively considering extension of the NBS regime to cover urea.

(ii) Government to move towards direct transfer of cash subsidy to people living below poverty line in a phased manner for better delivery of kerosene, LPG and fertilisers. Task force set up to work out the modalities for the proposed system.

People's Ownership of PSUs

(i) Overwhelming response to public issues of Central Public Sector Undertakings during current year.

(ii) Higher than anticipated non-tax revenue has led to reschedulement of some disinvestment issues planned for current year.

(iii) Government committed to retain at least 51 per cent ownership and management control of the Central Public Sector Undertakings.

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Investment Environment

Foreign Direct Investment

(i) Discussions underway to further liberalise the FDI policy.

Foreign Institutional Investors

(i) SEBI registered mutual funds permitted to accept subscription from foreign investors who meet KYC requirements for equity schemes.

(ii) To enhance flow of funds to infrastructure sector, the FII limit for investment in corporate bonds issued in infrastructure sector being raised.

Financial Sector Legislative Initiatives

(i) To take the process of financial sector reforms further, various legislations proposed in 2011-12.

(ii) Amendments proposed to the Banking Regulation Act in the context of additional banking licenses to private sector players.

Public Sector Bank Capitalisation

₹ 6,000 crore to be provided during 2011-12 to enable public sector banks to maintain a minimum of Tier I CRAR of 8 per cent.

Recapitalisation of Regional Rural Banks

₹ 500 crores to be provided to enable Regional Rural Banks to maintain a CRAR of at least 9 per cent as on March 31, 2012.

Micro Finance Institutions

(i) "India Microfinance Equity Fund" of ₹ 100 crore to be created with SIDBI. Government considering putting in place appropriate regulatory framework to protect the interest of small borrowers.

(ii) "Women's SHG's Development Fund" to be created with a corpus of ₹ 500 crore.

Rural Infrastructure Development Fund

Corpus of RIDF XVII to be raised from ₹ 16,000 crore to ₹ 18,000 crore.

Agriculture

(i) Removal of production and distribution bottlenecks for items like fruits and vegetables, milk, meat, poultry and fish to be the focus of attention this year.

(ii) Allocation under Rashtriya Krishi Vikas Yojana (RKVY) increased from ₹ 6,755 crore to ₹ 7,860 crore.

Bringing Green Revolution to Eastern Region

To improve rice based cropping system in this region, allocation of ₹ 400 crore has been made.

Integrated Development of 60,000 Pulses Villages in Rainfed Areas

Allocation of ₹ 300 crore to promote 60,000 pulses villages in rainfed areas.

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4.2.5 SUMMARY

A budget is defined as the formal expression of plans, goals, and objectives of management that covers all aspects of operations for a designated time period. The budget is a tool providing targets and direction.

Purpose of Budgeting: (i) Communication, (ii) Co-ordination, (iii) Planning, (iv) Control and (v) Evaluation.

Principles of Budgeting: (A) Principle of Planning, (B) Principle of Costs and Benefits, (C) Principles of Financing and (D) Principle of Risk Management.

There is a growing consensus that public expenditure management is a political, rather than a simply technocratic, process. Studying the politics of the budget process essentially means examining the ways in which the distribution of power within that process affects the subsequent distribution of public resources.

Various types of Budget are as follows: (i) Sales Budget, (ii) Production Budget, (iii) Purchase Budget, (iv) Expenditure Budgets, (v) Cash Budget, (vi) Master Budget and (vii) Zero Base Budgets.

Sales budget is a functional budget. The product-wise as well as regional break-up of sales estimates are incorporated in the sales budget. The sales budget begins with the previous year actual and incorporates the likely changes.

The production budget is prepared based on the sales estimate incorporated in the sales budget. The adjustments with respect to the opening and closing stock positions that are policy decisions of the business are then made to prepare the production budget.

The purchase budget is another functional budget that estimates the purchase requirement of materials utilised in the production process. The purchase budget is based on the production budget and the standard material consumption requirement for the production estimates.

A cash budget consolidates all the cash inflows and outflows for the business.

The cash budget is also a functional budget. The cash budget helps the business to plan the project purchases as well as to provide for the loan requirements. The cash budgets also help in defining the repayment plans for short- and long-term loans of the business.

The master budget is usually a one-year budget expressing the expected asset position and capital and liability positions for the projected year.

Budgeting process looks at requirements/plans anew each year irrespective of project continuity. These are necessarily long-term project budgets

4.2.6 SELF ASSESSMENT QUESTIONS

1. What is Budget?
2. Discuss the purposes of budget.
3. Explain the principles of budgeting.
4. "Budget as an instrument of economic policy." Discuss.
5. Explain various types of budget.
6. Explain how effective budgetary policy leads to economic development and growth of an economy.

4.2.7 Key Terms

Budget: A budget is a financial plan that outlines an organization's or individual's expected income and expenditures over a specific period, typically one year.

Revenue: Revenue refers to the income or funds generated by an organization or individual, often derived from sources such as sales, taxes, investments, or grants.

Expenses: Expenses are the costs incurred by an organization or individual in the course of operations, including expenditures on salaries, supplies, utilities, rent, debt servicing, and other obligations.

Fixed Expenses: Fixed expenses are costs that remain relatively constant over time and are typically essential for operations, such as rent, insurance premiums, and loan payments.

Variable Expenses: Variable expenses are costs that fluctuate depending on factors such as production levels, sales volumes, or market conditions. Examples include raw materials, utilities, and advertising expenses.

Capital Expenditures: Capital expenditures (CapEx) refer to investments in long-term assets or capital assets that provide benefits over an extended period, such as equipment, buildings, machinery, or infrastructure.

Operating Expenses: Operating expenses (OpEx) are ongoing costs associated with running a business or organization, including day-to-day expenses such as salaries, utilities, supplies, and maintenance.

Budget Deficit: A budget deficit occurs when expenditures exceed revenue during a specific period, resulting in negative net cash flow and necessitating borrowing or drawing from reserves to cover the shortfall.

Budget Surplus: A budget surplus occurs when revenue exceeds expenditures during a specific period, resulting in positive net cash flow and potentially allowing for savings, debt reduction, or investment.

4.2.8 Reference:

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2. Government Finance (Economics of the Public Sector)- J.F Due and F. Friedlander

3. Modern Public Finance- B.P. Herber

4. A Study of Public Finance- A. C. Pigou

5. Financing Government-M. A. Groves

6. Public Finance in Underdeveloped Countries- A. R. Priest

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UNIT - V

5.1 Chapter

FISCAL POLICY

Objectives

After completing this chapter, you will be able to:

- Understand the concept of Fiscal Policy
- Know the compensatory sending functional finance
- Understand the fiscal policy and inflation control
- Know the fiscal policy and economic development
- Understand the budgetary policy and growth

Structure:

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5.1.1 INTRODUCTION

Monetary policy and fiscal policy are two major wings of macroeconomic policy which the government can adopt to influence the level of economic activity and in the attainment of specific macroeconomic goals.

Fiscal policy, in a wider sense, comprises the deliberate changes in the size, form and timing of taxation, government spending, and public debt operations to influence economic activity in the desired direction:

Fiscal policy is related to an important part of government finance but not the whole of it. It does not deal with tax incidence, equity, centre-state financial relations, budgetary procedure, fiscal administration and many such other issues which come under the purview of public finance. It is largely concerned with the effect of fiscal actions of the government on such variables as employment, saving and investment, national income, the price level and the balance of payments. Growth and stability of economy are the universally recognised paramount goals of fiscal policy.

Monetary policy, on the other hand, is related to the monetary system of the country. Monetary management is its main concern. Monetary policy comprises "all monetary decisions and measures irrespective of whether their aims are monetary or non-monetary decisions and measures that aims at affecting the monetary system."

Monetary policy is essentially the central banking policy as the central bank of the country is the traditional agent which formulates and operates monetary policy. In practice, the central bank and the Ministry of Finance together constitute the monetary authorities. Dwayne Wrightsman, thus, defines monetary policy as "the deliberate effort by the central bank to control the money supply and credit condition for the purpose of achieving certain broad economic objectives." Like fiscal policy, in the contemporary modern era, price stability and growth are also recognised as the prime goals of monetary policy. Monetary policy is mainly conducted through central banking measures designed to influence the finance variables, the supply of money, the flow of credit and interest rates.

Though the paradigms of the monetary and fiscal policies are different in reality, these two arms of the macroeconomic policy are not disjointed or totally independent. On the contrary, there exists a considerable overlap between the two policies. A course in fiscal policy may carry its effect on the monetary side of the economy, which may induce changes in the monetary side of the economy, which may induce changes in the monetary policy and this, in turn, may influence the results of the initial changes in fiscal policy.

In the analysis of government's macroeconomic policy, thus, there is a linking of fiscal with monetary measures, since the fiscal policy has a profound impact on the financial variables; the supply of money and/or the market rates of interest, as all payments between the government and private sectors have monetary repercussions. Particularly, management of public debt is part fiscal, part monetary policy: the size and composition of the government debt are the result of past fiscal policy, which operations to changes the size and composition of the private sector's holdings of existing public debt are part of monetary policy, conducted by the central bank. Both money and fiscal

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policies, as such, have a strong link with money which plays a significant role is a modern economy.

5.1.2 MEANING AND SIGNIFICANCE OF FISCAL POLICY

Fiscal policy is an integral organ of modern public finance. It relates to government spending, taxing and borrowing and management of the public debt. Fiscal policy, thus, comprises of budget instruments and government transactions designed to further general economic development and allied objectives. It operates through both taxation and expenditure programmes of the government. Evidently, fiscal policy fundamentally concerns itself with the aggregative effects of public expenditure and taxation on income, output and employment. The effectiveness of fiscal policy to exert a significant influence upon the level of economic activity in an economy depends upon the percentage of aggregate national income and expenditure reflected in the government budget.

Etymologically, the term 'fiscal' has been derived from the Greek word 'fisc', meaning a basket to symbolise the public purse. Fisc, thus, refers to the Treasury. Fiscal policy, therefore, means the policy related to the treasury of the government.

Broadly speaking, fiscal policy is a part of general economic policy of the government which is primarily concerned with the budget receipts and expenditures of the government.

According to Arthur Smithies, fiscal policy is "a policy under which the government uses its expenditure and revenue programmes to produce desirable effects and avoid undesirable effects on the national income, production and employment". Fiscal policy, in short, refers to budgetary policy.

The term "fiscal policy", embraces the tax and expenditure policies of the government. Thus, fiscal policy operates through the control of government expenditures and tax receipts. It encompasses two separate but related decisions: public expenditures and the level and structure of taxes. The amount of public outlay, the incidence and effects of taxation, and the relation between expenditure and revenue exert a significant impact upon the free enterprise economy.

The taxation policy of the government relates to the programme of curbing private spending. Expenditure policy, on the other hand, deal with the channels by which government resources are pumped into the private economy. Government spending on new goods and services directly adds to the aggregate demand and indirectly increases income through secondary spending which takes place on account of the multiplier effect. Taxation, on the other hand, operates in reducing the level of private spending (on both consumption and investment) by reducing the disposable income and the resulting savings in the community. Hence, under the budgetary phenomenon, public expenditure and revenue can be combined in various ways to achieve the desired stimulating or deflationary effect on aggregate demand.

Fiscal policy has quantitative as well as qualitative dimensions. Changes in tax rates, the structure of taxation, and its incidence, influence the volume and direction of private spending in the economy. Similarly, changes in government's expenditure, and its structure of allocation will also have quantitative and redistributive effects on income,

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consumption and aggregate demand of the community. As a matter of fact, all government spending is an inducement to increase the aggregate demand (both volume and component) and has an inflationary bias in the sense that it releases funds for the private economy which are then available for use in the course of trade and business.

Similarly, a reduction in government spending has a deflationary bias and it reduces the aggregate demand (its volume and relative components in which the expenditure is curtailed). Obviously, the composition of public expenditure and composition of public revenue not only help to mould the economic structure of the country, but may also be expected to exert certain effect on the economy at certain times and a quite different impact at other times.

It was Keynes who popularised the interest in fiscal polity as a measure attaining macroeconomic goals like increasing the level of employment and income in an economy. Prior to Keynes, the classical economists believed in the principle of sound finance in which small and balanced budget was considered to be the ideal one. Keynes, for the first time, stressed the need for state intervention in the economic field and pleaded in favour of the criterion of unbalance budget. Following Keynes, A.P. Lerner gave the concept of functional finance to modern budgetary policy. To quote Lerner, "the principle of judging fiscal measures by the way they work or function in the economy, we may call functional finance". In fact, modern fiscal policy is by and large an application of the principles of functional finance. It has been recognised that budgetary measures carry significant influences on the functioning of the economy and, therefore, modern public finance is regarded as functional finance.

5.1.3 OBJECTIVES OF FISCAL POLICY

Fiscal policy is essentially budget policy which encompasses all measures pertaining to the level and structure of government's financial operations — public revenues, public borrowing and public expenditure — intended to serve certain public policy objectives.

Fiscal policy can exert powerful influence on a country's level of employment, capital accumulation, relative price structure, consumption, resource allocation and thus overall productive activity as well as the viability of its external sector. The fiscal activities of the government in a developing county have far-reaching implications that affect the stability, growth, income distribution, and the structure of the economic system through expansion of public sector in evolving a mixed economy.

In mature economies, the basic goals of fiscal policy usually are as follows:

- To attain full employment level of equilibrium.
- To maintain full employment level once it is attained.
- To maintain economic stabilisation, i.e., to avoid inflation or deflation — by controlling trade cycles.

Thus, in a mature economy, it is presumed that fiscal policy assumes the from of compensatory financing that would achieve full employment and price stability and avoid business cycles. In fact, a compensatory fiscal policy is the child of Keynesian economics. It refers to the variations in the government budget created by the variations in the private

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sector investments, so as to maintain a high level of investment, employment and income stability.

During deflationary or depressionary periods, compensatory spending implies a substitution of the public expenditure for the deficiency in the private expenditure in a mature economy, so as to maintain the effective demand at a high level. In inflation, however, when private spending is excessively high, there is need for a negative compensatory spending by curtailing public expenditure. That is to say, under compensatory finance, during deflation, the government spending must be increased and the budgets must be deficit to exert an inflationary pressure; while in inflation, deflationary forces must be exerted through minimum public expenditure and surplus budget policy. Compensatory fiscal policy may, thus, be directed towards the closing of both an inflationary and deflationary gap. Hence, the implicit objective of compensatory fiscal policy is to maintain full employment with price stability.

The role of fiscal policy in a developed economy is to function as an anti-cyclical measure. It assumes a balanced budget only in a normal price stability period. During recession or depression, however, the government must adopt a deficit budget policy, while a surplus budget policy is to be followed to combat inflation. During a depression, a deficit budget can be created in the following ways:

(i) The level of public expenditure is kept unchanged but the taxation rates are reduced.

(ii) Taxation rates are kept unchanged but public expenditure is increased.

As an anti-depression measure the second method is regarded as more significant. This excess of expenditure may be financed through public borrowings plus deficit financing, i.e., creation of new money.

Long-term Objectives of Fiscal Policy

Keynes' analysis was mostly confined to a short-term view, Post-Keynesians like Hansen, Harrod, Domar, and some others have sought to extend the Keynesian analysis to a more comprehensive long-period theory of income and employment. As such, the long-term objective of fiscal policy in a developed economy is conceived to be maintenance of a steady growth of full employment income without inflation or deflation so as to avoid secular stagnation or secular inflation.

Harrod and Domar emphasise that investment has a crucial role to play in the process of growth. Further, in respect of secular growth, there might be a long-run disequilibrium in a mature economy, which arises when income does not grow at a rate just sufficient to ensure full capacity use of a growing capital stock. It may be noted that Keynes had in view the short-term income creating effects of investment of a given stock of capital in solving the problem of depressionary unemployment. The post-Keynesians, however, aptly point out that in the long-run, the problem lies in increasing the stock of capital. Thus, the objectives of growth and full employment with stability in the long-run embody the problem of enlarging the capacity through investments in the capital goods sector. Employment, in the long-run, obviously is a function of the rate of growth of investment and income.

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Therefore, in order to maintain full employment equilibrium in the long-run along with dynamic growth, income must grow at a rate just sufficient which ensures the full capacity use of a growing capital stock in a dynamic economy.

If, however, long-run disequilibrium takes place when incomes fails to grow adequately to ensure full capacity use of the increasing capital assets in a dynamic economy, secular inflation may develop. To express in terms of the Harrodian growth mode, if G, the actual rate of growth, becomes greater than Gw, the warranted rate of growth corresponding to full capacity growth rate, there would be secular inflation. This is because when $G > Gw$, the income is generated at a faster rate than what is allowed by the growth in the productive capacity of capital goods sector. This means money income rises faster than the real income, on account of a relative scarcity of the capital goods. Due to the growing money incomes, then, the monetary demand tends to be in excess of the supply of real goods, causing prices to rise faster. On the other hand, when $Gw > G$, excess capacity arises in the economy, because growth in the productive capacity of the capital sector would exceed the income generated. Thus, the supply of goods will exceed the monetary demand, causing prices to fall. As such a deflationary state of affairs may tend to develop. Apparently, it follows that $G = Gw$ must be maintained to sustain long-run economic stability, since, $Gw = S/Cr$, where S is the saving-income ratio (S/Y), and Cr the value of capital required to produce a unit increment of output.

$G = Gw$ is a necessary condition of long-run equilibrium, but it is not a sufficient condition. For a dynamic equilibrium, Harrod introduces Gn, the natural rate of growth, which is the maximum rate of growth which will ensure full employment to a growing labour force in the context of rising productivity of labour due to technological advancement. Thus, if $Gn = Gw = G$, there is full employment growth equilibrium. Evidently, the public policy must aim at equating these different growth rates to assure stable economic growth. It must be directed to correct the maladjustment in the long-term factors, causing disequilibrium in G, Gn and Gw. The maintenance of stability may, however, require the diversion of resources from investment to consumption, when there is secular depression spelled out by $Gw > Gn = G$ in a mature economy.

Further, in the process of secular growth, S is likely to be greater than GC, the rate of consumption at a given actual rate of income growth. This causes possibility of secular stagnation. The stability goal, thus, requires a reduction in the S, the ratio of savings to national income and increase in the proportion of total consumption. Similarly, when there is an inflationary tendency in the long-run, (if $Gn > Gw$), consumption has not to be curtailed and S has to be moved up to achieve economic stability.

Fiscal policy, in a developing economy like India, however, subscribes to growth, stability and social justice.

5.1.4 FISCAL POLICY AND ECONOMIC STABILISATION

Economic stability is another prime aim of a sound fiscal policy. This goal implies maintenance of growth and employment level with price stabilisation. Price stability here means relative price stability. Inflation should be curbed and deflation should be avoided. In short, economic growth and stability are twin objectives jointly pursued by a

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developing country's fiscal policy. The force stimulating growth process should be given a boost at a time while inflationary pressures are to be curbed.

In a growing economy, when huge investment is undertaken to construct social overhead capital, infrastructures of the economy and development of heavy industries on account of long gestation period, returns are not immediate, so scarcity of consumption goods is felt. This leads to a rising price spiral. A demand-pull inflation thereby causes wages, etc., to go up and a cost-push inflation is provoked. This vicious circle of inflation has to be checked through appropriate fiscal measures.

Fiscal Policy and Social Justice

A welfare state should provide social justice by giving equitable distribution of income and wealth. Fiscal policy can serve as an effective means of achieving this much desired welfare state ideology in developed as well as developing countries. Progressive tax system and welfare oriented public expenditure help considerably in furthering the goal of redistribution of income and wealth in the same society in an equitable manner.

5.1.5 FISCAL POLICY FOR FULL EMPLOYMENT COMPENSATORY SPENDING

Following Keynes, modern economists in general fiscal policy as an instrument of securing and maintaining full employment. For this, fiscal policy of the government will have to be readjusted along the following lines:

(A) The budgetary policy of the government shall have to be revised in order to fight deflation and unemployment. Keynes has suggested a deficit budget programme, wherein expenditure of the government exceeds its revenue, which will generate expansionary effects in a stagnant economy.

(B) Taxation policy of the government should be so designed as to stimulate both consumption and investment together. This requires that the indirect taxes or commodity taxation should be reduced to the minimum so that the people should consume more.

A cut in excise duties, sales tax etc. helps very much in increasing the consumption demand of the people. Likewise, corporation taxes and taxes on profits should also be lowered so that investment may be stepped up, because a reduction in such taxes will push up the marginal efficiency of capital and thus inducement to invest.

(C) Compensatory public spending has a significant role to play in a modern state desirous of attaining full employment in the economy. A properly planned public investment will not only expand income, output and employment but also will step up overall effective demand in the economy through multiplier process and the economy will march progressively towards full employment. The spending by the government can be two-fold: (i) expenditure on public works, and (ii) expenditure on social security measures. For the first type, government should plan public works such as roads, buildings, parks, school, canals, hospitals, etc. This will stimulate the effective demand and the volume of employment.

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(D) Public debt management also be effectively to achieve full employment goal in an economy. In fact, public expenditure is partly to be financed through public borrowings.

In this context, government should follow a cheap money or low interest rate policy so that the burden of public debt will not be much. Secondly, government should try to borrow from those sections of the community with whom funds remain idle.

From this analysis follows Keynes main recommendation for a fiscal policy, which serves as a means of achieving full employment: (1) devise a progressive tax system to capture the excessive purchasing power and to curb private spendings; (2) compensate the deficiency in private investment by pubic investment; and (3) pursue a policy of low interest rates, i.e., a cheap money policy, so that private investor need not have any difficulty in borrowing. Their inducement to invest will be sustained and the burden will not be felt much.

Finally, a fiscal policy to be successful in achieving economic stability at full employment must be contra-cyclical in behaviour. The government should regulate the timing and size of its fiscal policy.

However, fiscal policy alone cannot serve as an effective means of achieving full employment. It should be co-ordinated with some other means. Generally, it has been prescribed that the monetary policy and the fiscal policy should be combined as a means of achieving full employment in an economy. For all practical purposes, however, the achievement of full employment without inflation may not be feasible. A price rise of 2 to 3 per cent per annum may have to be tolerated for attaining near full employment.

Outwardly, therefore, price stability and attainment of full employment appear as contradictory goals. In practice, the government has to reconcile between full employment and price stability, depending upon what is more important under a given circumstance.

5.1.6 THE THEORY OF FUNCTIONAL FINANCE (UNBALANCED BUDGET APPROACH)

Keynesian revolution in economic thinking reconstituted the whole basis of public finance and affirmed functional finance as a fiscal norm in modern times. Though the lead in the development of "functional finance" concept was initiated by Keynes, credit goes to Prof. A.P. Lerner for coining the concept. Lerner puts it that: "The principle of judging fiscal measures by the way they work or function in the economy, we may call functional finance." He contends that the fiscal operation of the government — taxing, borrowing, public spending, management of public debt, deficit financing, etc. should be designed, with the objective of fulfilling certain functions which have an immediate bearing and far-reaching effects on the economic system as a whole. In economic philosophy, the term "functional finance" embraces public expenditure, pubic revenue and debt management which are regarded as fiscal instruments effectively used to achieve objectives like attainment and maintenance of full employment with economic stability.

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As Professor Chelliah points out, the functional concept of fixed policy, thus implies that: (i) the fiscal operations of the government should be conducted on a functional basis, and public finance should not be considered as being induced solely by the need for securing social goods meant for collective consumption; and (ii) the budget need not always be balanced. As a matter of fact, the fiscal norm of functional finance is the complete antithesis of the orthodox rule of balanced budget. The functional finance norm suggests the formation of large budgets with a wider functional coverage of government spending to promote basic economic goals, e.g., (a) to obtain optimal allocation and efficient use of scarce resources at full-employment level, (b) to achieve economic stability and bring about an equitable distribution of income and wealth in the best possible manner.

Quite contrary to the classical notion, the concept of functional fiscal policy suggests that the state need not and should not assume a passive role in the economic affairs of the country. It implies that public spending may be incurred not merely for the sake of its direct benefits, but for the sake of the indirect effect it produces in raising the level of income, output and employment; and the public revenue may be raised not to meet an anticipated expenditure, but to curtail excessive demand and curb inflationary potential in the economy. Taxation is, thus, regarded as an important and effective weapon in the hands of the government to promote economic progress with stability.

Lerner suggests the following rules for government's responsibility and activity under function finance:

(i) The government budget should be directed towards the achievement of full employment of full employment and price stability. For this purpose, the government budget need not necessarily by balanced.

(ii) The government should incur public debt by borrowing money from the private sector only during inflation when it is absolutely essential to mop up the excessive purchasing power from the public, thereby reducing the pressure of excessive monetary demand.

(iii) During depression only, public expenditure in excess of public revenue may be met by deficit financing, i.e., printing additional currency notes.

In short, the main tenet of function finance is the formation of unbalanced budget from time to time for perfecting the counter-cyclical goal of fiscal policy. A surplus budget is recommended during inflation and a deficit budget for recovery through excessive public spending during a deflation or depression.

Functional finance, thus, deliberately aims at unbalancing the budgets with a view to attain and maintain full employment level in a developed economy. In an underdeveloped economy, however, the main problem is not one of full employment but that of rapid economic growth. In a developing economy, thus, the functional aspect of fiscal policy is to be conceived in the context of a planned process of economic development.

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5.1.7 THE THEORY OF SOUND FINANCE (BALANCED BUDGET APPROACH)

According to the classical economists, fiscal policy should have the minimum range of operations and the budget should be balanced annually. They firmly stuck to the doctrine of laissez-faire and Say's law of markets. As such, they believed that when supply creates its own demand, general overproduction or involuntary unemployment is well nigh impossible. According to Adam Smith, economic equilibrium and progress are attained through the inherent and self-oriented endogenous forces of the economic system. In classical opinion, thus, when full employment is supposed to reach automatically, productivity of government services in the economic field is nil. And, since government services are rendered at the cost of the national product (because any government thereby causing reduction in the output of private enterprises), it amounts to a cut in the aggregate national product. Thus, when government's production is zero in a free enterprise economy, it is desirable that government confines itself only to its primary functions of protection and security of life and property and does not interfere with the free working of the economic system. Even if governmental efforts are productive, it cannot increase national income and level of economic activity above the level reached without its intervention. When full employment, optimal allocation of resources and equitable distribution can be achieved automatically through the operation of free economic forces, fiscal operations have to be of a non-regulatory, non-interfering nature. As such, the smallest was considered to be the best in the classical era. Further, the classicists condemned all budget deficits which necessitated borrowing by the government for the lead to inflation and even if they did not, they caused reduction in they accumulation of private capital (because, the resources in private hands were depleted due to government borrowings), thus, inhibiting the rate of progress. The classicists firmly advocated a balanced budget, in the sense that current annual revenue and expenses of the government must be equal. It, thus, does not provide the borrowings. The balanced budget principle was recognised as a principle of sound finance in orthodox economics.

Under the theory of sound finance, classicists favoured a balanced budget criterion for the following reasons:

(i) If the budget is unbalanced, the government has to borrow. The government's market borrowing cause reduction in loanable funds available to private productive employment and investment activities.

(ii) Unbalanced budgets imply a wide extension of state functions beyond the capacity of the government, which may invite irresponsible governmental action.

(iii) Unbalanced budgets may generate inflation on account of large and unproductive public expenditure.

(iv) A balanced budget, on the other hand, cause economic uncertainty and promote instability.

(v) A series of unbalanced budgets imply an increase in the burden of public debt.

Furthermore, when the public debt matures, the government will have to impose additional taxes to obtain resources for its repayment. Thus, additional taxation would again tend to have an adverse effect on the incentive to work and save. It would also

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cause the accentuation of income distribution. Moreover, government borrowings cause the rate of interest in the money market to rise, as the demand for loanable funds rises.

A rise of the rate of interest adversely affects investment activity in the private sector.

In short, according to the principles of sound finance, a budget must be balanced annually and the gap between revenue and expenditure should be minimum. That is, a government should tax the least and spend the least, and it should not resort to borrowings as far as possible.

The classical economists firmly advocate a *laissez-faire* policy and were confident of the unhampered optimum operation of the free enterprise economic system. The neo-classical economists, however, realised the socially undesirable effects of unregulated free enterprise on the economic system. Marshall states that the conditions of laissez-faire, maximum social advantage is hardly realised. It was argued that careful state action for raising income and public spending was essential to attain maximum social welfare under the concept of welfare state developed in the neo-classical era.

Under the welfare state criterion, it was accepted that the state should take up the responsibility of correcting the misallocation of resources guided by private profit motive. The state has, therefore, to discourage private investment in certain sectors of the economy through fiscal restrictions and encourage private as well as public investment in essential sectors through appropriate public spendings. Pigou and Marshall, in this regard, favoured equi-marginal social sacrifice and benefits as essential in the government budget.

The concept of fiscal policy, however, received a new vista with the inception of New Economics (Keynesian economics) in modern times. Keynesian theory shattered the basic foundations of the classical doctrine, when the former asserted that the competitive process of free enterprise economy does not necessarily ensure an effective demand such as to absorb all productive resources at full employment, supply does not operate its own demand and the economy may attain equilibrium at underemployment level. Unemployment may persist due to secular forces causing under consumption and over saving in an advanced economy, thereby creating a condition of plenty in the midst of poverty on account of deficiency of aggregate demand. Keynes, therefore, regarded the inevitability of a positive fiscal policy as follows. At a level of income corresponding to full employment, the gap between total income and total consumption is so high in a mature economy that private investment is inadequate to fill it. If employment is to be avoided, the gap must be filled either by government expenditure or by increasing the propensity to consume. But, in a capitalist economy, which is characterised by wide inequalities in the distribution of income and other institutional factors which make for a high propensity to save, the propensity to consume cannot easily be raised enough to have a significant effect upon employment. Therefore, the chief responsibility for maintaining high levels of employment falls on the public expenditure designed to narrow the gap between income and consumption at full employment. Further, in Keynes' view, a depression in an advanced industrial economy occurs due to the deficiency of aggregate demand. Thus, during a depression, when the aggregate spending is inadequate to achieve full employment, the government must increase spending

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directly by undertaking public works programmes on a large scale and indirectly by inducing people to spend more.

In short, the Keynesian fiscal policy for attaining full employment implies a technique by which total outlay is manipulated, i.e., when private outlays are deficient, public outlays should be increased, which ensures the full use of economic resources available in the country.

5.1.8 FISCAL POLICY AND ECONOMIC GROWTH/DEVELOPMENT

Poor countries are entangled in the vicious circle of poverty. It should be broken. Thus, rapid economic growth is the fundamental objective of fiscal policy in a developing economy.

Fiscal policy as a means of encouraging growth process has the following objectives:

1. To realise and mobilise potential resources into the productive channels. For this, fiscal policy should aim at improving marginal propensity to save and the consequential saving ratio. The following methods have been suggested by Prof. Tripathy far raising the incremental savings ratio:
   (i) Imposition of additional taxes.
   (ii) Direct physical control.
   (iii) Revenue and public enterprises.
   (iv) Increase in the rates of taxation.
   (v) Public Debt.
   (vi) Deficit financing.
2. To accelerate the rate of economic growth. In this regard, fiscal measure must be conducive to growth process. In no way should fiscal means adversely affect the ability and willingness to work hard, save more and invest.
3. To induce and stimulate private sector investment.
4. To promote investments into socially desirable channels.
5. To alter the pattern of investment and production in such a way as to improve the general economic welfare and sustain egalitarian goals like equity in distribution and eradication of poverty.

When growth is fostered, increased employment opportunities are automatically provided. Thus, the growth objective contends provision of high productive level of employment.

5.1.9 FISCAL POLICY AND INFLATION CONTROL

Deficit Financing and Inflation

It is commonly held that deficit financing may lead to an inflationary rise in price. Since deficit financing increases the total volume of outlay, hence the monetary aggregate demand for existing goods and services rise which poses a potential inflationary threat, thus causing prices to rise. Especially in the case of war finance, this menace of deficit financing is greater, as war expenditures are by and large, not only

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unproductive in nature but also cause diversion of resources from the development sector to the defence sector, so that civilian goods become relatively more scarce. Assuming that the government covers up deficit budget either by running down its accumulated balances or by borrowing from the central bank, in any event it creates new money. This newly created state money evidently forms the basis of credit creation by banks, lending to an increase in total money supply in a greater proportion than the budgetary deficit. Therefore, its impact on general prices will tend to be much more powerful.

Much of this, however, depends on the nature of deficit financing. An unproductive war finance is, of course, distorting in effect. But developmental deficit financing may not always be inflationary or so distorting. Developmental deficit increases the production in future and its inflationary effect is, therefore, neutralised over a period of time due to the expansion of output. Excessive monetary demand for goods in future may be mitigated by the expansion of supply of real goods, so that relative price stability may be maintained.

Deficit financing in a developing economy is not likely to cause inflationary pressure although it results in an increase in the money supply and aggregate expenditure, especially when:

(i) Some increase in the money supply is essential to meet the liquidity requirements of an expanding economy.

(ii) In a poor country where a part of the economy is non-monetised, additional money creation by deficit spendings may be absorbed by the monetisation progress in its subsistence sector.

(iii) The government spendings consist of quickly resulting productive efforts in the public sector industries.

(vi) The country has huge foreign exchange earnings and accumulated resources, so that supply can be adjusted to the growing demands through imports.

(v) If business is slack and capital equipment exchange is unutilised to a certain extent, deficit financing tends to give fillip to the economic activity.

However, an inflationary price-spiral necessarily follows deficit financing under the following circumstances:

1. When there is no excess capacity existing in the system, increased money supply will tend to raise money income cumulatively through consumption-multiplier effect, without simultaneous increase in real output, so that inflationary trends set in.
2. When the public sector expands at the cost of the private sector the rigid policy of government and deficit financing would cause a decrease in total supply of goods or no improvement as such against the potential excess demand, and this will definitely lead to a rise in prices.
3. A persistent deficit financing policy of the government is, no doubt, dangerous to price stability. The gestation period of capital goods being long, the output totally fails to keep pace with the ever-increasing excessive monetary aggregate demand, so that prices tend to rise cumulatively.
4. A continued deficit budget policy causes a vicious circle of deficit financing which results in higher inflation. That is, when the government fails to control prices tightly, the rising prices increase cost, and to meet the rising cost, in

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view of inadequate resources and saving, the government has to resort to more deficit financing which then tends to push up the prices further, and so on.

Thus, in an unsound deficit financing policy, cost-push and demand-pull inflationary forces interact together to accelerate the price spiral.

5. Particularly when the government resorts to deficit financing for non-developmental expenditures, or when the expenses are made lavishly and in an unproductive way, there is not only an economic wastage, but inflation would inevitably occur which would harm the economic progress as a whole.
6. In underdeveloped countries, some price rise, as a result of mild deficit financing, is inevitable, due to bottlenecks in the economy which prevents the actual production frontier to rise fully up to the exploitation of potential resources, so that supply elasticities are low and relatively sluggish, while the effective demand rises quickly on account of the high consumption propensities. Thus, the real problem of poor countries is not one of deficiency of effective demand, but of the market imperfections, and lack of capital formation; therefore, the growth of resources and savings are needed most in these countries.

By resorting to deficit financing, in a less developed country, when the government borrows from the banking or ordinary fiscal operations, there is diversion of resources from productive investment to unproductive uses which results in inflation. Inflation of a mild order may not cause a serious problem, but a running or galloping inflation produces distorting effects. When such inflation in deficit financing is induced, the economy moves into vicious circle of inflation and deficit financing as due to inflation, will be used in increasing the losses in order to keep up the initial effect, which in turn, aggravates the problem of inflation further.

To measure the inflationary impact of non-developmental deficit financing, a crude formula is stated as follows:

$$\Delta P = (I + D)nv$$

where, ΔP = rise in price level

D = deficit financing as a portion of natural income

N = number of years

V = annual velocity of circulation of money.

Regarding Indian economy, Prof. S.B. Singh has estimated that 1 per cent increase in budget deficit met by deficit financing causes 1.75 per cent increase in the prices in general.

5.1.10 ROLE OF FISCAL POLICY IN DEVELOPING COUNTRIES

The fiscal policy in developing countries should apparently be conducive to rapid economic development. In a poor country, fiscal policy can no longer remain a compensatory fiscal policy. It has a tough role to play in a developing economy and has to tackle the problem of growth-cum-stability.

The main goal of fiscal policy in a newly developing economy is the promotion of the highest possible rate of capital formation. Underdeveloped counties are encompassed

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by vicious circle of poverty on account of capital deficiency; in order to break this vicious circle, a balanced growth is needed. It needs accelerated rate of capital formation. Since private capital is generally shy in these countries, the government has to fill up the lacuna. A mounting public expenditure is also required in building social overhead capital. To accelerate the rate of capital formation, the fiscal policy has to be designed to raise the level of aggregate savings and to reduce the actual and potential consumption of the people.

Another objective of fiscal policy, in a poor country is to divert existing resources from the unproductive to productive and socially more desirable uses. Hence, fiscal policy must be blended with planning for development.

An important aim of fiscal policy in a developing economy is to create an equitable distribution of income and wealth in the society. Here, however, a difficulty arises. The aims of rapid growth and attainment of equality in income are two paradoxical goals, because growth needs more savings and equitable distribution causes reduction of aggregate savings as the propensity to save of the richer section is always high and that of the poor income group low. As such, if high economic growth is the objective, the question arises as to what extent inequalities should be reduced. Of course, many a time, under the goal of socialism, the government unduly resorts to reduction of inequalities at the cost of growth which may lead to the distribution of poverty rather than prosperity.

A reconciliation of these two contradictory goals of growth and reduction of inequalities can definitely bring forth better results.

Furthermore, fiscal policy in a poor country has an additional role of protecting the economy from high inflation domestically and unhealthy developments abroad. Though inflation to some extent is inevitable in the process of growth, fiscal measure must be designed to curb inflationary forces. Relative price stability constitutes an important objective.

The approach to fiscal policy in an economy which is developing must be aggressive as well as segmental. The former may lead to overall economic expansion and reduce the general pressure of unemployment; but due to the existence of bottlenecks, though general price stability may be maintained, sectoral price rise may inevitably be found. These sectoral imbalances are to be corrected by appropriate segmental fiscal measures which would remove frictions and immobilities, turn demands into proper directions, seek to eliminate bottlenecks and other obstacles to growth.

For developing countries such as India, the following main objectives of fiscal policy may be restated as follows:

(i) to increase the rate of investment and capital formation, so as to accelerate the rate of economic growth;

(ii) to increase the rate of savings and discourage actual and potential consumption;

(iii) to diversify the flow of investments and spendings from unproductive uses to socially most desirable channels;

(iv) to check sectoral imbalances;

(v) to reduce widespread inequalities of income and wealth;

(vi) to improve the standard of living of the masses by providing social goods on a large scale.

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It follows that fiscal policy in a developing country may have a number of interrelated pragmatic and egalitarian macroeconomic goals such as high economic growth, high employment level, check on inflation, social justice, reducing economic inequalities and eradication of poverty. Basically, real economic growth in a less developed country provide solution to many of its socio-economic problems. In the absence of adequate economic infrastructure and social overhead capital (SOC) to boost up direct productive activity (DAP) of the private sector, a developing country needs to adopt some kind of planning and programming for appropriate structural adjustments in the economy for which fiscal policy—especially, its dimension on public expenditure plays a key role in stimulating the development process. At a time, the public sector may have to become the captain of the economic players when domestic entrepreneur as shy or unwilling to bear heavier risks. And, foreign players generally will not come to play on unsurfaced pitch.

Once development initiative is undertaken by autonomous investment in appropriate channels by the public sector, private sector, private sector will be induced to play its part. The government has a business to enter into the business — to be more positive in preparing the ground work for smooth operation of the market forces and growth of private sector, with a transformation of plan-driven developing economy towards a market-driven economy under the systematised process of privatisation and globalisation.

For instance, Malaysia has done exactly the same. The country's noble government's economic policy perception, systematically changed plan and budgetary exercises all reflect a purposeful and calculated steps under a definite vision.

For the purpose of development, not only an expansionary but a deficit budget is desirable too in a developing country. The government expenditure on developmental planning projects must be increased. It may be financed even by means of deficit financing. Deficit financing, here, refers to the creation of new money by printing additional notes by the government or by borrowing from the central bank which ultimately means creation of additional money supply. However, the government must use the technique of deficit financing cautiously. An excessive dose of deficit financing may lead to inflation which may endanger economic growth. When there is a lack of fiscal discipline by the government, monetary policy tends to become ineffective in the country.

Public borrowing also is an important means of getting resources for development of the public sector. External loans are useful to some extent when the country has to import machines, capital goods, etc., from a foreign country and the country has scarcity of foreign exchange.

Anyway the effectiveness of fiscal measures in promoting development in a poor country depends on the incentives administered to the strategic points in the productive set-up by virtue of the consequences of taxation and public spending.

It must be noted that fiscal policy in a developing economy has to operate within a framework influenced by social, cultural and political conditions and institutions, which may inhibit the formulation and implementation of good economic policies.

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Further, fiscal policy in a poor country may be used to reduce inequalities in income and wealth distribution by means of taxes and government expenditure. Taxation has to be progressive and government spending must be welfare-oriented.

In short, for promoting economic growth, the fiscal policy must be first formulated in such a way that it will increase the rate of volume investment in the public and private sectors. The tax policies must discourage unproductive and speculative investment. Second, fiscal policy must mobilise more and more resources for capital formation. Hence, taxation must be used to curb excessive consumption. Third, it must encourage an inflow of foreign capital.

Fiscal policy, however, cannot be effective when there are loopholes in the taxation laws the tax administration is corrupt so that there is large-scale tax evasion. Again, if the government is extravagant in spending on non-developmental items, then a technique such as deficit financing may prove to be inflationary. Again, market imperfections, bottlenecks, shortages of raw materials, and lack of entrepreneurial skills, do not allow fiscal policy to be effective.

A high population growth, and an orthodox society also come in the way of development and without a co-ordinated, sound, physical plan and its proper implementation, fiscal policy cannot be very effective in reaching its goal of rapid economic development with stability.

Nonetheless, of all the economic policies, fiscal policy today assumes unique importance in realising general economic goals, depending on the size of the fiscal measure adopted and their timing. The exact change effected in the national incomes will depend on the form and the magnitude of public revenue, especially, the rates and structure of taxation and the mode of public spending by the government. Further, when prices are rising, government has to adopt a surplus budget at an appropriate time in order to avoid secular inflation. But, there is practical difficulty in knowing the changing conditions or appearance of price stability; hence it is very difficult to forecast perfect timing. Political and administrative delays tend to aggravate the problem and the desired effect of fiscal programme may not be realised. Sometimes, even if the fiscal action is taken at the right time, in quantitative or qualitative terms, it may not be adequate or appropriate.

Quite often, trade union activities come in the way of operating fiscal measures or may demand high wages during inflation, and when the government is forced to raise the wage level on account of a demand-pull inflation, cost-push inflation may also emerge to make the situation worse.

5.1.11 FISCAL INSTRUMENTS FOR MOBILISATION AND ALLOCATION OF RESOURCES AND ALLIED OBJECTIVES

In a mixed economy like India when planning is adopted for the developmental process, the state has to play a crucial role by incurring plan investment and outlays to stimulate growth. This requires mobilisation of resources on a large scale and its proper allocation. Fiscal measures like taxation, public borrowings and deficit financing can be effectively used for this purpose.

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Besides public sector, private sector has to play a significant role in a mixed economy. Private investment is, apparently, an essential ingredient of planning in a mixed economy. Hence, the methods of raising public revenue has to be so devised that they do not impinge on the sources of private sector investment.

The crux of the matter is that taxation, public borrowings and deficit financing which must be used in a harmonious combination so as to produce the best overall effect in realising the macroeconomic goals.

However, taxation measures in particular may be used to accomplish the following objectives:

(i) Curtailing consumption and thus garnering resources for public sector investment;

(ii) Inducing the people to work hard, save and invest in production;

(iii) Curbing the use of scarce resources in unproductive private investment and then diverting them to the productive public sector;

(iv) Reshaping the pattern of investment in a socially desirable manner; and

(v) Reducing inequalities in income and wealth through progressive taxation.

Since voluntary savings are insufficient in poor countries, the total volume of savings is compulsorily raised through taxation and such resources are transferred from private hands to the government for its most efficient use. Of course, the success is very much conditioned by the productivity, efficiency and honesty of public sector. Government can very well use taxed revenue for capital formation. And taxes are generally non-inflationary in character. It is their unique merit. Lewis, in the context of economic growth, suggests that the marginal rate of taxation should exceed the average rate, so that tax receipts would grow faster than national income and thus the government will automatically get more resources for implementing further development programmes. It would also tend to reduce the inflationary pressure in a growing economy.

But taxation has its limits in a poor country where the taxable limit is relatively low on account of general poverty and low per capita income. Excessive taxation may have a distinctive effect on savings and investment. Further, indirect taxation is not only regressive in effect, but may also tend to have an inflationary pressure. Nevertheless, a properly devised tax policy can certainly help in achieving the growth-stability objective of fiscal policy.

Besides taxation, public borrowings also seem to be an important means of mobilising savings in government hands. It is also a sort of non-inflationary method of financing government programmes, as public debts divert money savings of the people to government securities — less liquid assets. This tends to curb consumption and relives inflationary pressure. Moreover, the resources so realised by the government can be productively invested for the criterion of economic and social overhead capital.

But, growth needs huge investments which cannot be fully met by taxation and borrowings alone so that government in a poor country often goes for deficit financing.

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5.1.12 RULES OR NORMS OF FISCAL POLICY

Rules of Fiscal Policy

While arriving at budgetary decisions, there are many alternative fiscal policy norms of rules which may be taken into consideration. Professor Herbert mentions the following alternative fiscal rules or norms:

1. The Annually Balanced Budget Fiscal Norm.
2. The Functional Finance Fiscal Norm.
3. The Cyclically Balanced Budget Fiscal Norm.
4. The High-Employment Budget Fiscal Norm.

1. The Annually Balanced Budget Fiscal Norm: The classical economists have advocated for the annually balanced budget principle as a norm for public authorities fiscal operations. They disfavoured unbalanced (deficit) budget for the following reasons:

(i) Deficit budget implies transfer of resources from the private sector use to the government sector use. This retards private sector's progress in a free enterprise economy.

(ii) Deficit spendings have inflationary effect. Adam Smith was of the opinion that government is fundamentally wasteful in terms of its financial operations. Thus, when public debt is created to finance excessive government spendings, there is unnecessary and unproductive diversion of money capital from the private business to the public sector. This results into a deficiency of capital goods which, in turn, retards economic development. Ricardo and Mill also disfavoured deficit public expenditure criteria based on public debt creation and applauded the norm of annually balanced budget.

Keynesian economic revolution, however, led to vehement opposition to the principle of annually balanced budget. Under the Keynesian impact, it has been universally accepted that in a rational democratic economic system, the fiscal norm of annually balanced budget is unduly restrictive and seriously deficient. Modern economists, have realised the worth of deliberate budget manipulation as an important fiscal tool to achieve predetermined macroeconomic goals.

2. The Functional Finance Fiscal Norm: The functional finance fiscal norm is the legitimate off spring of Keynesian economic theory. It was asserted by Abha Lerner. Lerner viewed that various fiscal measures such as public spending, taxation, public debt, deficit financing, etc. can be undertaken to influence the working of the economy as a whole. Thus, the government financing should be described as functional finance. The budgetary operations should be manipulated to promote macroeconomic goals. Under this principle thus the balanced budget criterion is disregarded. In short, the functional finance fiscal rules is the complete antithesis to the annually balanced budget norm.

Lerner prescribed the following tenets for the functional finance rule:

(i) The budget should be devised to attain full employment with price stability.
The function of taxation should be basically to prevent inflation apart from fetching revenue.

(ii) Public debt created with excessive purchasing power from the public is to be curbed voluntarily with a view to minimise inflationary pressures.

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(iii) Public expenditure of public revenue-cum-public borrowings should be financed through creation of additional money supply (deficit financing).

In short, Lerner claims that functional finance is applicable to any society in which money is used as an important element in the economic mechanism, as fiscal measures can influence money flow as required for the achievement of full employment and price stability.

Of these two extreme fiscal rules, thus, we observe that annually balanced budget involves a budgetary control in relation to inter-sector resource allocation; while, functional finance norm disregards budgetary control and inter-sector resource allocation is given secondary importance against the capacity of fiscal operations in promoting macroeconomic goals like full employment, economic growth and stabilisation in the market-oriented economy. We may, however, say that a rational fiscal norm should reconcile these two extreme views and bear a reference to both control and macroeconomic goals in a developing economy. A rational fiscal policy should contain a mix of sound finance and functional finance approaches.

Hence, taking an intermediary position of compromising step between these two extreme norms, as discussed above, other fiscal norms may be framed as under.

3. The Cyclically Balanced Budget Fiscal Norm: This norm suggests that budget should be balanced not annually but over the course of a complete business cycle. This pays prime attention to fiscal policy as anti-cyclical policy. As per this rule, during cyclical peak or prosperity period, to curb the pressure of monetary inflation, a surplus budget should be devised. Similarly, during depression, to have quick recovery, a deficit budget should be implemented.

However, there are certain difficulties arising in applying the cyclically balanced budget fiscal rule. These are:

(i) Cyclical phases lack symmetry. Thus, the sizes of surplus budget during inflation and deficit budget during depression cannot be equal for effecting a right balance. There is, thus, absence of built-in flexibility in an automatic way.

(ii) Every cyclical prosperity phase need not be inflationary. Inflation is a post-full employment phenomenon. But, a price rise at an underemployment equilibrium level proves to be reflationary and it need not be checked. A surplus budget during reflection should be inappropriate and irrational.

(iii) In a democratic political set-up, there are certain institutional impediments which may pose difficulties in the precise application of the cyclically balanced budget norm, especially surplus budget during prosperity or inflationary phase.

4. The High-Employment Budget Fiscal Norm: The full employment balanced budget or the high-employment budget fiscal rule has received wide recognition in recent years. This norm implies the mechanism of automatic fiscal stabilisers in the financial operations of the government. It eschews discretionary or arbitrary changes in tax rates in the normal course. It asserts that tax collection has a positive correlation with national income and falls with its contraction. This means built-in flexibility in the budget functions at automatic and rational anti-cyclical measure. Advocates of automatic built-in flexibility, however, admits that under certain circumstances occasional discretionary fiscal actions are warranted. For instance, under severe inflation discretionary action of changes in tax rates needs to be undertaken. Critics like Heller, therefore, express doubts

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about genuinely automatic fiscal mechanisms devoid of discretionary decisions. Furthermore, automatic built-in flexibility of a fiscal policy may involve consideration of a number of assumptions and forecasts regarding macroeconomic variables like price levels, population growth, labour supply, demand, productivity, etc.

It follows that a mix of automatic as well as discretionary fiscal tools should be adopted to achieve various predetermined macroeconomic goals.

5.1.13 TECHNIQUES OF FISCAL POLICY

To appreciate various fiscal policy techniques, it is essential to grasp the following two concepts:

- Automatic fiscal stabilisers.
- Discretionary fiscal stabilisers.

Automatic Fiscal Stabilisers

Automatic fiscal stabilisers can be measured on the basis of functional relationship between changes in income levels and the corresponding changes in tax revenue in any tax function; since, tax yield is the function of tax rate and the tax base.

In this context, assuming tax revenue as the function of income, we may define the concept of marginal propensity to tax as the ratio of proportion of tax revenue to the proportion of income. In symbolic terms thus:

$$MPT = \frac{\Delta TR}{TR} \times \frac{Y}{\Delta Y}$$

where, MPT = The Marginal Propensity of Tax

TR = Tax Revenue

ΔY = National income

Δ refers to a small or a unit change.

Depending upon the kind of tax and the nature of tax system in the country, the MPT may either be increasing, constant or decreasing with income.

For instance, a lump-sum tax being a per capita tax has zero MPT. A proportional tax on income means unitary marginal propensity to tax ($MPT = 1$). A progressive tax implies elastic marginal propensity to tax ($MPT > 1$). A regressive tax rate implies less elastic marginal propensity to tax ($MPT < 1$). Obviously, a tax with elastic MPT has a greater significance as an automatic fiscal stabiliser.

Discretionary Fiscal Stabilisers

Discretionary fiscal policy refers to deliberate changes in taxes and/or expenditures to fulfill certain aims. To realise objectives of full employment, and growth with stability, discretionary changes may be undertaken in either tax rates or tax bases, or new taxes may be imposed or some tax may be deleted, or public expenditure may be changed.

Herber puts that under the course of discretionary fiscal measures there tends to be an interaction between the marginal propensities to consume and save and the marginal

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propensity to tax in causing the multiplier effect on the generation of national income. Such a multiplier coefficient may be measured as follows:

$$K = \frac{1}{1-b+b(t)}$$

where, K = Multiplier coefficient

b = Marginal propensity to consume

t = Marginal propensity to tax.

Suppose $b = 0.5$,

$t = 0.2$,

$K = 1.66$

It can be seen that in the absence of tax, the multiplier value is 2. But it is lowered when tax leakage enters in the flow of income-expenditure stream.

Indeed, the fiscal multiplier should be taken into account while forming a budgeting policy.

In short, various techniques of fiscal policy—especially tax and public spending techniques, can be effectively employed to achieve macroeconomic goals. Modern governments also devised fiscal policy to promote growth. The pattern of public expenditure significantly influences the pattern and pace of economic growth. For instance, creation of social overhead capital through increased public expenditure can help a long way in accelerating tempo of overall economic progress. Public investment in education and health care helps in improving human capital and its productivity so that a higher rate of growth is effectuated in turn. Government subsidies programme can reduce risk in private investment and push it up. In this way, various tax and public spending policies may be used by the government to crate favourable impact on growth activities in the economy.

5.1.14 BALANCED BUDGET MULTIPLIER

Keynesian concept of compensatory finance explains that budgetary deficits (public spendings exceeding public revenue) cause an expansionary effect on the economy due to the operation of multiplier. Logically, it was therefore, inferred that a balanced budget will have a neutral effect upon the level of incomes in the economy. The modern economists, however, contend that even a balanced budget has compensatory aspects.

In this context, they put forward a balanced budget multiplier theorem stating that the balanced budget has an expansionary effect. It has been advocated that an increase in public speedings financed by an equal increase in taxation, will not have a neutral effect upon the level of income, but it contains an expansionary effect. The expansionary effect of a balanced budget is called 'the balanced budget multiplier'. The expansionary effect of a balanced budget takes place due to the fact that when government imposes an extra tax of rupee one to finance the additional expenditure of one rupee, the entire taxed rupee does not come at the cost of consumption but a part of it paid through downward shift of the saving function (i.e., dissaving). As such, the expenditure flow increases when the

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government spending takes place and it generates income from which further consumption expenditure is generated, which leads to an expansion of income level.

Based on certain simplified assumptions, the balanced-budged multiplier theorem, however, contends that the multiplier coefficient of balanced budget would be unity, so that the national income (GNP) would rise in proportion to the increased public expenditure. If the expansion of income induces a change in investment expenditure, the acceleration effect will lead the multiplier to exceed unity. Similarly, if initial increase in public expenditure is competitive with private sector rather than being compensatory, then the multiplier value may become less than unity also.

Mathematical Formulation of the Balance Budget Multiplier

Let us assume a closed economy. The equilibrium income equation is thus:

$$Y = C + I + G$$

where, Y = National Income;

C = Consumption;

I = Investment; and

G = Public Expenditure

Assuming a linear consumption function,

$$C = Co + bY'$$

where, Co = The amount of consumption when income is zero;

b = The marginal propensity to consume; and

Y' = Disposable income, i.e., income left after tax.

Evidently, T = Taxation on income.

In the absence of taxes on income, thus,

$$y' = Y$$

Then, $C = Co + by$

Since, investment expenditure is assumed to be autonomous, we may put:

$$I = I$$

Where,

I = autonomous investment independent of the level of income.

Similarly, we assume:

$$G = G$$

Where,

G' = autonomous government expenditure.

Thus,

$$Y = C_0 + bY + I + G$$

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By manipulation, thus:

$$Y - bY = C_0 + I + G$$

$$Y(I - b) = C_0 + I + G$$

$$Y = C_0 + I + G/(I - b) \quad \ldots (1)$$

Suppose, now the government increases its expenditure by ΔG. In the process of balance budget tax is increased by T, so that $T = G$.

If we put $G = x$, then,

$T = x$.

Hence, the new consumption function will be:

$C = Co + b(Y - x)$

And, new government expenditure is:

$$G + \Delta G = G + x$$

$$Y = C_0 + b(Y - x) + I + G + x$$

$$Y = C_0 + bY - bx + I + G + x$$

$$Y - by = C_0 + I + G + x - bx$$

$$Y(I - b) = C_0 + I + G + x(I - b)$$

$$Y = C_0 + I + G + x(I - b)/(I - b)$$

For brevity, this new level of income may be designated as: Ya

Hence,

$$Ya = C_0 + I + G + x(I - b)/(I - b) \quad \ldots (2)$$

Since,

$$\Delta Y = Ya - Y$$

That is change in the income level is measured by the difference between new income and original income level.

$Y = (C_0 + I + G + x(I - b)/(I - b)(C_0 + I + G)/(I - b)$

$Y = x(I - b)/(I - b)$

$Y = x$, Since, $x = \Delta G$; $\Delta Y = \Delta G$.

Evidently, the balanced budget multiplier coefficient is:

$BK = GK = TK$

Where,

BK = Balanced budget multiplier coefficient.

GK = Government spending multiplier coefficient.

TK = Backward operating tax multiplier coefficient.

Thus, as multiplier is based on the marginal propensity to consume,

$GK = I/(I - b)$;

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And,

$$TK = I - (I/I - b) = b/(I - b)$$

$$BK = \frac{I}{(I-b)} - \frac{b}{(I-b)} = (I - b)/(I - b) = 1$$

Thus, the balanced budget multiplier is equal to unity.

5.1.15 DRAWBACKS OF FISCAL POLICY

In the course of aggregate demand management through fiscal policy, there are certain difficulties or drawbacks which make accurate stabilisation or 'fine-tuning' of the economy hard to achieve.

In a rationally devised fiscal policy, budgets are to be attentively unbalanced for the purpose of aggregate demand management. During recession, planned budget deficits are called for. During boom period, planned budget surpluses would be essential to maintain economic stability. In a theoretical sense, assuming a market economy model, the size of the planned budget deficit should be tuned to the magnitude and amplitude of the cyclical behaviour. The budget deficits should correspond — increase steadily — with the fall in the level of aggregate demand $(C + I)$ in the private sector and reaching a maximum at precisely the time when the cycle is at the trough point. Similarly, when the aggregate demand tends to rise above normality during boom conditions, the budget surplus should steadily rise and reach a maximum at precisely the time when the cycle is at its peak point. Figure 5.1.1 demonstrates the argument.

It is, however, not that easy to get the two curves A and B into the correct juxtaposition, in practice. This is because there are many practical limitations or drawbacks to the actual working of the fiscal policy.

First, there is a problem of forecasting. Following Keynesian analysis of the aggregate demand function in a regulated market economy, it may be said that for successful stabilisation the government invention should be able to increase the level of total expenditure $(C + I + G)$ if it appears likely to fall short of the full employment level, and to reduce it if it appears likely to overshoot. For this purpose, the government has to forecast two critical magnitudes: (i) the full employment potential output of the economy at some point in the future, and (ii) the expected level of future demand and aggregate real supply on the basis of current policy setting. The basic difficulty here is of practical dynamism and uncertainty in future, since forecasts would be based on statistical trends observed in the past.

When projections are based on statistical probability, we may expect the continuation of trend, but there is no guarantee that the trend will be maintained into the future. There are possibilities of sudden shocks, which may disrupt the whole thing, but these cannot be estimated or expected well in advance due to their randomness. Moreover, the behaviour of private sector investment cannot be accurately visualised since business psychology and expectations are highly sensitive phenomena. This is very true even in case of a mixed economy like India where economic planning has a significant impact on business activity of the private sector. Paucity of data and information gap in a

developing country make the problem of accurate forecasting even difficult for the policymakers.

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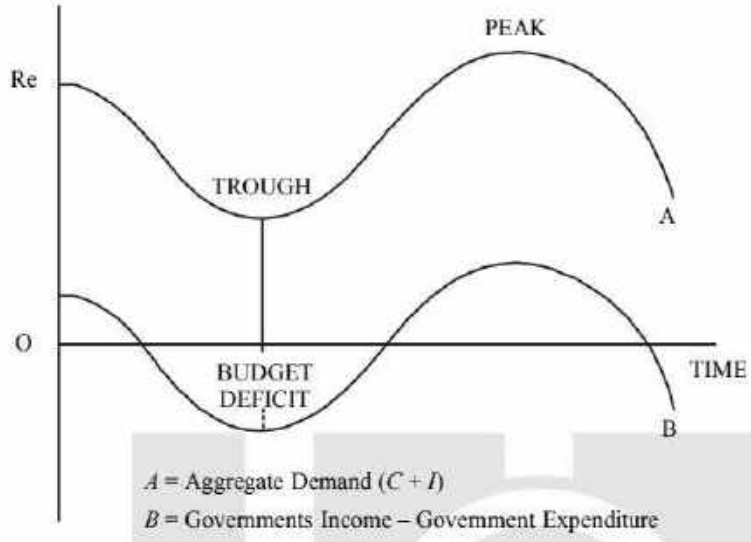

Fig. 5.1.1: Cyclical Model

Secondly, there is a problem of time lags. Time lags refer to delays or time involved in the sequence of stages between the formulation of the policy and its implementation.

Time lags in policy-making are basically of three variants such as: recognition lag, action lag, and outside lag.

'Recognition lag' refers to the time elapsed between the direction of economic change (such as recession, for example) and the government's identification of this fact and realisation of need for a change in fiscal policy to correct the disorder. Recognition lag depends on time factor pertaining to collection, compilation and reporting of data to the concerned authorities and their interpretation and identification of a definite trend in the economy's move. In a country like United States, at least six months is assumed for recognition lag. In a developing country the recognition lag tends to be longer than in a developed country, for the obvious reasons of the difference in efficiency and organisation of data collecting machinery in these countries.

'Action lag' or decision lag refers to the time gap and delays involved in the decision-making process in deciding the best course of action. The democratic government cannot adopt quick decisions on fiscal matters. Besides a technical discussion, it has to also seek public opinion and party's consent before undertaking a decision for some radical changes.

'Outside lag' or execution lag refers to the time gap and delays involved in actually implementing a policy change. Even when a fiscal change is executed, it takes time to work its way through the economy to produce its full effect in effecting the desired alterations for 'fine-tuning' the economy. The success depends on how quick people respond and make adjustments to the impact of a policy change. This may be referred to as the response lag.

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The existence of lags makes it difficult to adopt timely successful fiscal policy as a stabilisation device for fine tuning of the economy. Indeed, a badly timed fiscal policy measure may tend to aggravate rather than mitigate fluctuations in the economy, thus, creating more destabilising effect.

In India, however, no such official attempts have been made so far in the computation of time lags involved in fiscal policy. This is also a virgin area for the researchers in the field of public finance.

Inflexibility is another drawback of fiscal policy. In comparison to monetary policy, fiscal policy is characterised with relative inflexibility because fiscal measures tend to operate in inflexible ways. Firstly, as the government budget is traditionally set on annual basis, it becomes an inflexible instrument for fine-tuning the economy at a short notice. Secondly, the budgetary proposals need approval of the Parliament in a democratic set-up of the country. There may be political constraints too. As such, frequent changes in fiscal policy measure cannot be made independently by the fiscal authorities. There is also danger of causing insufficiency in resource allocation by frequent changes in fiscal policy. Thirdly, short-term fiscal changes in taxation viewed on short-term stabilisation objectives are less likely to have a daunt on permanent consumption or spending behaviour, thus, aggregate demand in the economy.

Nonetheless, of all the economic policies, fiscal policy today assumes unique importance in realising general economic goals, depending on the size of the fiscal measures adopted and their timing. The exact change effected in the national income will depend on the form and the magnitude of public revenue, especially the rates and structure of taxation and the mode of public spendings by the government.

Further, when prices are rising government has to adopt a surplus budget at an appropriate time in order to avoid secular inflation. But there is a practical difficulty in knowing the changing condition or appearance of price instability; hence it is very difficult to forecast the appropriateness of timing. Further, political and administrative delays tend to aggravate the problem and the desired effect of fiscal programme may not be realised. Sometimes, even if the fiscal action is taken at a right time, in quantitative or qualitative terms it may not be adequate or appropriate.

Quite often, trade union activities come in the way of operation of fiscal measures. The workers may resist certain taxation measures or may demand high wages during inflation, and when the government is forced to raise the wage level on account of demand-pull inflation, cost-push inflation also may emerge to make the situation worse.

Sometimes, when public borrowings tend to raise the rate of interest, the private sector investment might be discouraged and the problem of unemployment aggravates further so that fiscal policy may fail to realise its objective of maintaining full employment. Particularly, the growth of public debt in depression tends to reduce business confidence and private investments. Therefore, Keynes advocated deficit financing, i.e., creation of new money to combat depression.

It is unanimously agreed that fiscal policy and monetary policy must be co-ordinated in such a manner as to achieve the desired goal, e.g., in a period of depression, an expansionary monetary policy must be accompanied by a budget

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deficit — fiscal measure — and during inflation, the surplus budget must be accompanied by dear or restrictive monetary policy.

5.1.16 CO-ORDINATION BETWEEN MONETARY POLICY AND FISCAL POLICY

Management of economy is the broad function of a modern government by enacting and implementing general economic policies. For macro-management, in particular, the task involves a host of macroeconomic and sectoral policies among which monetary and fiscal policies are accorded a place of pride. Traditionally, monetary and fiscal policies are regarded as two separate policy-making issues of economic analysis. Monetary policy is supposed to be the citadel, the central being the traditional monetary authority. Fiscal policy is the fort of the fiscal authorities, that is, the Ministry of Finance.

On analytical grounds, economists usually distinguish monetary policy from fiscal policy and banking policy. In a strict theoretical sense, monetary policy encompasses all monetary measures of the central bank which influence the cost and availability of money in the financial system of the country; while fiscal policy pertains to the finances of the government, that is, the budgetary activities such as revenue, expenditure and borrowings (including deficit financing). Banking policy, on the other hand, addresses itself to the credit development aspects. In practice, however, there is a great deal of overlapping between monetary, banking or credit, and fiscal policies and it is not easy to draw a sharp demarcation line in determining their powers, scope of and impact on the working of the monetary system at large. In most countries including India, the central bank is no longer a totally independent sole monetary authority. The Ministry of Finance has also an equal say in the financial matters of the country. Rather, the Ministry of Finance is perhaps more powerful as a super monetary authority these days.

In fitness of things, therefore, the best course, on practical considerations, is to term the whole phenomenon as "monetary-fiscal policy" which is a blended subset of macroeconomic policies comprising monetary-cum-credit/banking policy and even of financial policy in a broader sense along with fiscal policy under the joint responsibility of the central bank and the fiscal authorities, which together constitute monetary/financial authorities.

Monetary-fiscal policy is an integral part of economic policy which attempts to achieve the broad objectives, such as price stabilisation, economic growth and favourable balance of payments, through direct and indirect management of the monetary system and the functioning of the money economy by operating on such monetary variables as the supply of money, availability of credit, the level and structure of interest rates, interacting with the monetary impact of the budgetary exercises of the government involving public borrowings and deficit financing. Monetary-fiscal policy, in a wider spectrum implies the complex interrelationship between the government's fiscal policy — the public sector borrowing requirements, monetary and credit policies of the central bank — money and finance, price and output in the economy. Monetary-fiscal policy, in a strict sense, is a bipartite aggregative policy. It specifically relates to credit and finance for the private sector and public debt for the government sector in a mixed economy like that of India which is embarking on planning for the attainment of

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macroeconomic goals. Monetary-fiscal policy, in a wider context, has to assume the role of financial policy.

The perception of monetary-fiscal policy is essentially based on linking fiscal with monetary measures in the analysis of government's macroeconomic policies — the former having a direct bearing on money supply and/or interest rates. A budget deficit, for instance, when met with deficit financing will have the effect of augmenting the money supply and if it is financed through market borrowings by the government, the market rates of interest may tend to rise (if not administered.) This explains why inflationary (loose) fiscal policy almost invariably entails a high growth of money supply thereby weakening the very foundation of anti-inflationary (tight) monetary policy. To avoid such a malaise, in the present thesis, we have argued for a "monetary-fiscal policy mix" to be adopted by a developing country such as India in the course of policy-making under the framework of planning. Indeed, the monetary-fiscal policy mix plays a crucial role in shaping the economic destiny of the nation, for the quantum of money and finance and its allocation have profound influence on the course, nature, pattern and volume of the economic activities in the money economy — whether planned or unplanned.

A Case for Monetary-Fiscal Policy Mix in a Developing Economy

Indeed, monetary policy and fiscal policy are two major macroeconomic policy levers available to the authorities for the management of aggregate/effective demand. Fiscal policy involves changes in taxation or government expenditure for influencing the level of aggregate demand. Through reduction in direct taxes, thereby increasing the disposable income of the people and by increasing government spending, the level of aggregate demand can be raised in an expansionary fiscal policy during a recession. Similarly, an expansionary monetary policy helps in augmenting the level of aggregate demand by increasing the stock of money and lowering the interest rates. To restrain inflation, on other hand a tight money policy is required — raising of interest rates and reducing the stock of money. To curb inflation, fiscal policy has to be contractionary through increasing direct taxation and reducing government spending.

Misguided and unco-ordinated monetary and fiscal policies do a lot of damage to the developing economies by seriously disrupting their growth process. Many developing countries including India appear to have slipped into financial repression inadvertently as their original policies did not aim at indiscriminate repression but rather at financial control. When these policies are followed singly, then these are likely to contradict or conflict with each other. To avoid this, we suggest a monetary-fiscal policy mix devised to achieve the desired macroeconomic goals, particularly, growth with stability and social equity.

Sole dependence upon monetary policy as a means of promoting growth and development and coping with inflation is dangerously one-sided in the macroeconomic set up of a developing economy. This results in macro imbalances. In a rational approach, the monetary policy has to be devised in a way that works effectively as an integral part of the total economic policy. Instead of segregating monetary policy from fiscal policy, a monetary-fiscal mix would be better to maintain a delicate balance between growth and stability in a developing economy.

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The central bank and the government should not clash with each other, since central bank is a part of the apparatus of the government and in that context, it has to express its autonomy and use its powers effectively for the monetary control without undue political interference. The central bank's autonomy does not imply its total independence from the government, it is an independence within the government with the interdependence of both. A central bank has to be always cautious to give timely warning to the government of the emergence of any condition which may endanger the country's monetary stability. The central bank should not be treated as a subordinate but as an equal partner in the decision-making and executing of monetary-fiscal policy mix.

If the central bank is to accept the sole responsibility, it would be asked to compensate for the outcomes of any mistakes or deficient policies in other fields, especially the fiscal policy. This is what has happened in India and elsewhere in the absence of co-ordination and sharing of joint responsibility. Inadequate monetary and fiscal policies seriously hamper the process of growth. On the other hand, even the most powerful monetary or fiscal policy in isolation can never be a substitute for each other as well as for the many other economic, social and political measures essential for rapid growth and development. Monetary-fiscal policy is essentially the economic policy of government in the fields of monetary and financial activities.

The term "monetary-fiscal policy" is used to make the broad concept of monetary policy more meaningful by including fiscal measures with significant monetary implications, thus, reflecting the complementary character of monetary and fiscal policies in practice. The concept of monetary-fiscal policy mix involves not merely a mutual recognition of the respective role of the central bank and the government but also an adjustment of attitudes, co-operation and co-ordination towards policy making with a integrated approach in the best interest of the nation's economy.

Monetary-fiscal policy is fundamentally concerned with monetary management and monetary-fiscal macro balances. Monetary management, in a broad sense, implies the management of money supply, credit and financial conditions in the working of the monetary system. Monetary-fiscal macro balances refer to the balancing of the monetary impact of fiscal operations co-ordinated with monetary operations by the treasury and the central bank in pursuit of chosen macroeconomic goals. The goals of monetary policy and fiscal policy are largely common since both are macroeconomic stabilisation tools. Both the policies operate in the management of aggregate demand. Hence, the best results would be obtained if both are co-ordinated suitably, rather than operating disjointedly, where there may be chances of conflict or contradiction between the two. Both the polices are also interrelated because of the government budget constraint. When fiscal deficit is monetised by the net central bank credit to the government, money stock increases which is to be again controlled through devices of monetary management.

The use of monetary policy instruments such as bank rate, cash reserve ratios and open market operations directly affect the bank reserves — their lendable resources, thus, availability of credit and the rates of interest, that is, costs of credit. Changes in flow of credit directly affect the changes in private investment and spending, and real output and employment. The total direct and indirect effects of monetary policy cover a long time span.

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Fiscal policy affects directly the level of employment, output and incomes through government's budgetary operations — taxation, expenditure and borrowings. The average time lag for fiscal policy is somewhat shorter than that of monetary policy in producing its direct and indirect effects. Thus, initial impacts of the former appear to be quite different from those of the latter. But, as indirect effects take over, in the longer run, the difference in the time length of effects lessens rapidly.

In planning co-ordinated monetary-fiscal policy mix it is essential to recognise that linkage channels between these macroeconomic policy instruments are complex and time lags are usually long. Hence, if there is a loose highly flexible co-ordination in the monetary-fiscal policy mix, where authorities focus on different intermediate target variables, discretionarily aiming at "fine-tuning" the economy would amount to create a mess of the whole thing drifting away from producing optimal results.

The elements of monetary policy and fiscal policy in a "mix" never change, but their application must be re-oriented to the changing needs of the environment with a flexible monetary-fiscal policy mix avoiding contradictions. This obviously calls for a common decision-making in joint sittings by the respective authorities of the central bank and the treasury. For achieving stable economic growth with high-level employment with price stability it is necessary to have effective use of monetary and fiscal policies as a long arm of macroeconomic policy in a developing economy like India.

In fact, the very concept of monetary-fiscal policy "mix" presupposes that the central bank and the government enjoy some freedom of choice, some discretionary power within limits, that they can set monetary and fiscal instruments independently but not contradictorily when these two major policies (namely, monetary policy and fiscal policy) are co-ordinated. Unfortunately, this condition is not met to any significant degree in most developing countries.

A n evaluation of the effectiveness of alternative monetary and fiscal policies in their different combinations and co-ordination in setting a policy "mix" would be necessary to make a choice of the optimal combination. The optimal combination choice will not be an easy task, since different policy making arrangements may predictably show different policy combinations yielding different results to serve different purposes in different modes with variant degrees of successes. The tax-expenditure policy has to be used cautiously to create a positive impact in counteracting destabilising forces in the path of growth and development and maintenance of price stability.

Monetary policy-making is more flexible than fiscal policy-making. To minimise destabilising forces, a primary objective of monetary policy should be to envisage a reasonable stable growth in the basic monetary aggregate and moderate the impact of fiscal deficit on the banking activity. The policymakers' capacity to choose a policy mix, which depends on conditions such as government budget deficits, need not be totally financed by the creation of additional money — whether "high-powered" money created by the central bank's credit to the government or 'low-powered" money created by other banks. Deficit propels government borrowings. Hence, there must be instruments of public debt of such a nature that they are neither monetary nor the ones automatically monetising the debt. These instruments must not be perfect substitutes for base money. Their prices and interest rates must be freely determinable in the market and not administered. In the absence of such borrowing instruments in an economy, budget

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deficits determine the growth of money supply and fiscal policy becomes indistinguishable from monetary policy.

Conscious political means and will are the preconditions for evolving a pragmatic monetary-fiscal policy mix. In most developing countries including India, however, a conducive political environment simply does not exist. Usually, there are quasi-constitutional provisions which insulate the central bank from the government and serving the political end of providing the means and will to break the fiscal-monetary links. Ostensible outcome of arrangements which assign monetary and fiscal decisions to separate policy is ever made in these countries.

It is imperative that the developing countries should aspire to mitigate the situation through constitutional or legislative reformation. It is necessary to think of an accord between the government, fiscal and monetary authorities. In a developed country like the USA, this has been there since long — the famous accord of 1951. it is heartening to note that in India such an understanding has been made between the Finance Minister and the Reserve Bank Governor through 9th September, 1994 Agreement, that the government will not exceed its borrowings from the RBI beyond ₹ 6,000 crores.

Indeed, under a monetary-fiscal policy mix, the prime objective of development with stability in a developing economy calls for a combination of sets of policies governing taxation, public expenditure, public debt and monetary management. In a policy mix only can it be feasible and possible to work out the growth of money supply in a targeted range in relation to budget deficits and link it up with fiscal policy which is an integral part of macroeconomic policy of the government. In this way, through monetary-fiscal policy "mix", we think of a reconciliation of "monetarism" and "fiscalism" — the two distinct theoretical frameworks of monetary and fiscal policies on practical considerations.

In short, monetary-fiscal policy mix implies that fiscal policy needs to be judged alongside the monetary policy. When an expansionary fiscal policy with a government deficit causes macroeconomic imbalance, it is usually redressed by a restrictive monetary policy. But, to a developing country this proves to be a costly affair. Under a restrictive monetary policy, it may increase CRR and/or SLR as in India and thereby seek to control the growth of money supply. Under a shallow financial system, this may tend to push up interest to a very high level. To avoid this, interest rates ceiling are to be prescribed. This in turn leads to repression of the financial infrastructure and weakening of the banking system. As such, a tight money policy is a poor substitute for fiscal discipline.

The Problem of Co-ordination

The policymakers should have a clear understanding of the meaning of policy co-ordination in framing a suitable monetary-fiscal policy mix. We throw some light on this concept and process of "co-ordination."

1. Co-ordination does not imply mere joining of two different policies.
2. Co-ordination does not imply bestowing co-ordinating power solely on a single or supreme authority or the government.
3. Co-ordination implies avoidance of contradictions and conflicts by seeking mutual harmonisation of the related policies and measures in achieving common goals.

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4. Co-ordination in monetary-fiscal policy, on practical considerations, means parallel expansionary and restrictive movements in monetary-fiscal and related macroeconomic policies as far as possible to serve parallel objectives. But, when there are conflicting goals, the 'policy mix" involves different approaches in related policies. Say, for example, if there is an over expansionary fiscal policy likely to generate inflation, the monetary policy has to be restrictive primarily to offset the inflationary potential of the former.
5. Co-ordination does not imply rigidity. It should provide for flexibility since the economy involves dynamic changes and uncertainties.
6. Co-ordination in monetary-fiscal policy mix calls for inter-agency discussions jointly and exchange of ideas and information of the two different groups of policymakers — central bank and treasury.
7. Co-ordination means broad consensus, though not necessarily agreement on the policies to be followed when circumstances do not permit so. For example, in the USA in late 1965, despite inter-agency discussions, the Federal Reserve Bank enhanced the discount rate against the expressed desire of the treasury.
8. In a stricter sense, however, co-ordination in determining a monetary-fiscal policy mix, of course, implies discussion and agreement on the course of action and steps to be taken by the central bank and the treasury when one goes for a unified monetary-fiscal policy rather than for their separate workings as is commonly found so far. We rather favour a unified monetary-fiscal policy for a country like India in its planned process of development, where these two policies as separate entities have failed to keep a common track.

Last but not the least, we would like to drive the point home that there is no single formula or a set of principles which provides settled conclusions for framing of monetary-fiscal policy mix. Thus, there can be no rigidly formed econometric model of monetary-fiscal policy mix that would serve all time, in all cases, for all countries.

For econometricians, therefore, it is a challenging task to design on appropriate modes of monetary-fiscal policy mix to suit a particular country, at a particular time, in given economic environment to deal with specific burning problem and macroeconomic goals.

5.1.17 SUMMARY

Monetary policy and fiscal policy are two major wings of macroeconomic policy which the government can adopt to influence the level of economic activity and in the attainment of specific macroeconomic goals.

Fiscal policy is related to an important part of government finance but not the whole of it. It does not deal with tax incidence, equity, centre-state financial relations, budgetary procedure, fiscal administration and many such other issues which come under the purview of public finance. It is largely concerned with the effect of fiscal actions of the government on such variables as employment, saving and investment, national income, the price level and the balance of payments.

In the analysis of government's macroeconomic policy, thus, there is a linking of fiscal with monetary measures, since the fiscal policy has a profound impact on the

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financial variables; the supply of money and/or the market rates of interest, as all payments between the government and private sectors have monetary repercussions.

Fiscal policy is an integral organ of modern public finance. It relates to government spending, taxing and borrowing and management of the public debt. Fiscal policy, thus, comprises of budget instruments and government transactions designed to further general economic development and allied objectives.

The taxation policy of the government relates to the programme of curbing private spending. Expenditure policy, on the other hand, deal with the channels by which government resources are pumped into the private economy. Government spending on new goods and services directly adds to the aggregate demand and indirectly increases income through secondary spending which takes place on account of the multiplier effect.

Under the theory of sound finance, classicists favoured a balanced budget criterion for the following reasons:

(i) If the budget is unbalanced, the government has to borrow.

(ii) Unbalanced budgets imply a wide extension of state functions beyond the capacity of the government, which may invite irresponsible governmental action.

(iii) Unbalanced budgets may generate inflation on account of large and unproductive public expenditure.

(iv) A balanced budget, on the other hand, cause economic uncertainty and promote instability.

(v) A series of unbalanced budgets imply an increase in the burden of public debt.

The classical economists firmly advocate a laissez-faire policy and were confident of the unhampered optimum operation of the free enterprise economic system. The neo-classical economists, however, realised the socially undesirable effects of unregulated free enterprise on the economic system. Marshall states that the conditions of laissez-faire, maximum social advantage are hardly realised. It was argued that careful state action for raising income and public spending was essential to attain maximum social welfare under the concept of welfare state developed in the neo-classical era.

Keynesian theory shattered the basic foundations of the classical doctrine, when the former asserted that the competitive process of free enterprise economy does not necessarily ensure an effective demand such as to absorb all productive resources at full employment, supply does not operate its own demand and the economy may attain equilibrium at underemployment level.

During a depression, a deficit budget can be created in the following ways:

(i) The level of public expenditure is kept unchanged but the taxation rates are reduced.

(ii) Taxation rates are kept unchanged but public expenditure is increased.

Keynes' analysis was mostly confined to a short-term view, Post-Keynesians like Hansen, Harrod, Domar, and some others have sought to extend the Keynesian analysis to a more comprehensive long-period theory of income and employment.

The approach to fiscal policy in an economy which is developing must be aggressive as well as segmental. The former may lead to overall economic expansion and

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reduce the general pressure of unemployment; but due to the existence of bottlenecks, though general price stability may be maintained, sectoral price rise may inevitably be found.

Public borrowing also is an important means of getting resources for development of the public sector. External loans are useful to some extent when the country has to import machines, capital goods, etc., from a foreign country and the country has scarcity of foreign exchange.

The term "monetary-fiscal policy" is used to make the broad concept of monetary policy more meaningful by including fiscal measures with significant monetary implications, thus, reflecting the complementary character of monetary and fiscal policies in practice. The concept of monetary-fiscal policy mix involves not merely a mutual recognition of the respective role of the central bank and the government but also an adjustment of attitudes, co-operation and co-ordination towards policy making with a integrated approach in the best interest of the nation's economy.

5.1.18 SELF ASSESSMENT QUESTIONS

1. What is Fiscal Policy?
2. Explain fiscal policy as an instrument of stabilisation of growing pump-priming.
3. Discuss the compensatory sending functional finance.
4. Explain the fiscal policy and inflation control.
5. Discuss the fiscal policy and economic development.
6. Explain the budgetary policy and growth.

5.1.18 Key Terms

1. **Government Spending**: Government spending refers to the expenditure by the government on goods and services, such as infrastructure, defense, education, and healthcare. Changes in government spending can impact aggregate demand and economic activity.

2. **Taxation**: Taxation is the process by which governments collect revenue from individuals and businesses to fund public expenditure. Changes in tax rates, tax credits, and deductions can influence disposable income, consumption, and investment decisions.

3. **Budget Deficit**: A budget deficit occurs when government spending exceeds government revenue (taxes and other sources of income) during a specific period. Deficit spending may require borrowing through the issuance of government bonds.

4. **Budget Surplus**: A budget surplus occurs when government revenue exceeds government spending during a specific period. Surplus funds can be used to reduce government debt, invest in infrastructure, or provide tax cuts.

5. **Government Debt**: Government debt, also known as public debt or national debt, is the cumulative total of all past budget deficits minus surpluses. It represents the amount of money owed by the government to creditors, typically in the form of government bonds.

6. **Expansionary Fiscal Policy**: Expansionary fiscal policy involves increasing government spending and/or reducing taxes to stimulate economic growth, increase aggregate demand, and reduce unemployment during economic downturns.

7. **Contractionary Fiscal Policy**: Contractionary fiscal policy involves decreasing government spending and/or increasing taxes to reduce inflationary pressures, cool down an overheating economy, and prevent excessive borrowing during periods of economic expansion.

8. **Automatic Stabilizers**: Automatic stabilizers are features of the tax and transfer systems that automatically adjust government spending and taxation in response to changes in economic conditions. Examples include unemployment benefits and progressive income taxes, which increase during recessions and decrease during expansions.

9. **Discretionary Fiscal Policy**: Discretionary fiscal policy refers to deliberate changes in government spending and taxation enacted by policymakers to achieve specific economic objectives, such as stimulating growth, reducing unemployment, or stabilizing prices.

10. **Crowding Out**: Crowding out occurs when increased government borrowing to finance budget deficits leads to higher interest rates, reducing private investment and potentially offsetting the stimulative effects of fiscal policy.

11. **Fiscal Multiplier**: The fiscal multiplier measures the impact of changes in government spending or taxation on aggregate demand and economic output. A higher fiscal multiplier indicates that fiscal policy has a more significant impact on GDP.

12. **Laffer Curve**: The Laffer Curve illustrates the relationship between tax rates and tax revenue. It suggests that there is an optimal tax rate that maximizes revenue, beyond which higher tax rates may lead to disincentives to work, invest, and innovate, reducing tax revenue.

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5.2 Chapter

FISCAL FEDERALISM

Objectives

After completing this chapter, you will be able to:

- Understand the Fiscal Federalism
- Know the distribution of revenues with special reference to India
- Understand the co-ordination of financial policy between Centre and State Governments

Structure:

5.2.1 THE NATURE OF FEDERALISM

A federation is a political set-up constituting a union of two or more states. According to the federal principle, the power are divided between the federal government and the federating units in such a way that the central and the state governments are, within one's sphere, co-ordinate and independent.

Federalism has evolved over the years in two ways: (i) by aggregation and (ii) by devolution.

A federal state may be constituted by aggregation or linking together of several sovereign states, through a treaty, for achieving certain common economic and/or political objectives. The United States of America, Canada and Australia are examples of such federal states. The USA is regarded as a classical form of federation.

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After the First World War, however, a new type of federal state has sprung up. In such type of federation, several nationalities having different ethnic background, language and culture voluntarily join together to form a federation. Since independence, Indian and Pakistan have also adopted this form. Such federal states have a strong unitary structure.

The salient feature of a federal state, whether established through aggregation or by devolution, is that, it is composed of two types of governments: (i) the federal or the central government; and (ii) the constituent of federating units or state governments. Functional powers and authority in a federal set-up are generally divided between the two forms of governments through constitutional provisions.

The fundamental principle underlying a federation is that it envisages a fair distribution of powers between the central and the state governments. The functions which are of national importance or of general interest such as foreign affairs, defence, transport and communications and currency regulation, are normally retained by the central government and those subjects like education, public health, maintenance of internal law and order are left to the state governments.

In the strict sense, federalism, thus, the two authorities, the centre and the states, are more or less independent of each other, and their jurisdictions are well defined by the constitution. In the recent past, especially during and after the Second World War, there has been a strong tendency towards centralisation in all federations of the world.

The classical concept of federation has become somewhat obsolete. The central government has become stronger *vis-à-vis* the state governments. In times of emergency or for common interest, the central government may even encroach upon the state subjects. Thus, the state governments in particular are not fully sovereign within their assigned sphere activities. But in recent years the state governments have also assumed much more importance because of the functions they are called upon to perform.

In practice, modern federalism is a co-operative federalism, where the two layers of government do not have completely exclusive functions. Quite often, certain subjects of state jurisdiction are co-ordinated on a national level like that of labour legislation and flood control measures, and the power of co-ordinations is vested in the central government.

In the Indian Union, the division of functions is based on a three-fold scheme: (i) the Union List (containing 97 subjects); (ii) the State List (containing 66 subjects); and (iii) the Concurrent List (containing 44 subjects). The enumerated powers are, thus, very elaborate; yet the residuary powers, if any, are reserved with Union Government. Further, the Union legislative authority can be extended to any subject given in the State List by a resolution of the Council of States.

A mongst the important functions assigned to the Union Government are defence, foreign affairs, shipping, navigation and aviation, national highways, posts and telegraphs, telephones, broadcasting etc., means of communications, currency and coinage, banking and insurance, foreign trade, inter-state trade and commerce, etc. The states have been assigned police, public order, public health, sanitation, hospitals, education, irrigation, forests, inter-state trade and commerce, etc. The spheres of concurrent jurisdiction are

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criminal law, bankruptcy, and insolvency, economic and social planning, industrial and disputes, labour welfare, social security and social insurance, price control, etc.

A federal constitution defines functions and authorities of the two governments. As a result there is decentralization of power followed by decentralisation of finance and resources. The study of federal finance, thus, relates to the principles and problems of finance — the division of resources in a federal system of government

5.2.2 PRINCIPLES OF FEDERAL FINANCE

In a federal state, division of function leads to the division of resources between the two layers of government. The immediate question in federal finance is what sources of revenue should be allocated to the different authorities so that they may discharge their functions efficiently. But the division of taxing powers and adjustment of functions is a complicated affair. Whatever be the basis of resource allocation or division of taxing powers, it is unlikely that the needs and resources of each government can be exactly balanced. There may be either surplus or deficit of funds. Hence, the other problem in federal finance would be of adjustments and compromise. There is need of spirit of give and take principle in the realm of finances. There must be sufficient elasticity in the division of functions so as to adopt it to the changing circumstances. In practice, the division of function and resources has depended more upon expediency rather than upon the scientific base of the principle of federation. The power assigned to the federal government varies with the intensity of the urge and the need to unite.

In tackling the problems of allocation and adjustments in federal finances, however, care must be taken to see that the interests of the area or state and also of the country as a whole are given due consideration. Financial resources placed at the disposal of any authority have to correspond to the functions and obligations assigned.

Broadly speaking, the following guiding principle have been suggested by a host of economists in determining the financial policy regarding the division of resources and adjustments) of a federal government:

Autonomy and Responsibility

Each government in a federation should be autonomous and independent in its internal financial matters. This is to say, each federating unit should have its own means of revenue and scope of expenditure in order to carry out its functions effectively.

The principle of autonomy and responsibility also implies that as far as possible the centre should not interfere in matters which are exclusively the responsibilities of the states.

This, however, does not mean that every state in a federation will have complete independence of autonomy as far as functions and finances are concerned. Because if this were to be so, there will be some states with large surplus funds which are unusable and others with paucity of resources. There will, thus, be inequality and imbalance between one state and another. A certain measure of co-ordination and control by the federal government is essential for a healthy and sound financial system in a federal set-up.

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Hence, the federating states recognise the sovereignty of the federal government in financial matters.

Adequacy and Elasticity

The resources of each unit should be adequate to meet its immediate needs of the present and should be elastic enough as well to meet the growing needs of the future.

It may so happen that the states are called upon to incur heavy expenditures on education, public health and agricultural development, etc., which require huge and growing resources, and the revenue raised by them may not be sufficient to meet them. In such cases, the central government assists them by way of grants etc., or by transferring resources from surplus states to deficit states. Similarly, the central government itself may need huge resources during emergencies, war time or for planning development. The centre must have the power to pool the resources of the various states to meet such requirements.

Allocation of resources between the central and the state governments should be such that:

(i) The centre will get enough resources to meet its normal requirements as well as to maintain additional reserves to meet emergency.

(ii) The states will get sufficient funds to meet their normal requirements and additional and increasing expenditures on social services like education, public health family planning, etc.

(iii) There is possibility of alteration in the distribution of resources according to changing needs. The financial framework must be flexible.

Uniformity and Equity

This principle implies that the contribution by different federating units towards common burdens is on an equitable basis. Thus, the contribution of each state in federal taxes should be according to its ability or economic condition. The creation of uniformity also implies that there should be no discrimination between citizens of different states in the federation. However, some concessions given to the weaker sections and backward states for the sake of equity and justice are quite compatible with the principle of uniformity. Further, in order to achieve equity in taxation, a proper balance between direct and indirect taxes should be maintained.

Some kind of supervision by the central government over the financial policies of state governments is, however, deemed essential for creating uniformity and equity in the interest of the nation as a whole.

Administrative Efficiency and Economy

The taxes assigned to the different federating units should be such that they can be efficiently and economically administered. Further, the cost of tax collection should be minimum. Similarly, there should be no scope for fraud and evasion of taxes. Double and multiple taxation should also be avoided.

For instance, income tax cannot be efficiently administered and economically collected by a state government. It must, therefore, be assigned to the central government. Similarly, it would be difficult, inconvenient and uneconomical to collect property taxes

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at the central level. So, land and property taxes are to be kept under the purview of the state governments.

In practice, however, the allocation of resources in most federations is based upon historical reasons. Thus, the main consideration has been expediency, rather than any adherence to scientific principles.

5.2.3 THE PROBLEM OF DISTRIBUTION OF REVENUES FINANCIAL RESOURCES WITH SPECIAL REFERENCE TO INDIA

Division of sources of revenue between the Union and the State governments, are generally based on the functions of the two authorities and the expenditure required to be incurred by them in discharging these functions. The underlying principles is that such taxes which affect the economic life of the entire nation should be levied by the federal government. For example, in India, custom duties, taxes on business incomes and corporations etc., are levied by the centre. This prevents the chances of double taxation and tax evasion. Taxes which have no effect on other states, such as land revenue, are assigned to the governments.

There are certain obvious advantages of the system of allocation of resources between the different units of the federal government. These are:

(i) Each unit will be self-sufficient to some extent.

(ii) Each government will be in a position to adjust its fiscal system to its own fiscal needs.

(iii) The financial autonomy so realised would create a greater sense of responsibility in each unit in discharging its functions.

(iv) It would be possible for each unit to discharge its functions more efficiently and vigorously as a result of such financial autonomy.

In practice, however, there are severe limitations to the allocation of resources and the financial independence of each unit. First of all, it is not always possible to demarcate between the various sources of taxation suitable for the centre and for the states. For example, sales tax levied by a state creates complications in inter-state trade which may adversely affect the healthy growth of trade as a whole. Secondly, a complete segregation of sources may lead to financial difficulties also. Sometimes, a resource assigned to a unit may prove to be inadequate or it may exceed its needs. Some adjustments are, therefore, very essential, so that the statutory principles of distribution need not be strictly adhered to. Sharing of common taxes has, thus, become a normal phenomenon in a federal financial system. Adjustment of resources is undertaken to ensure that "economic equilibrium" is maintained in the nation as a whole. It is generally experienced that the central government has more funds than the state governments, but at the same time, the latter have more functions. Hence, the excess resources from the centre should be distributed among the various states according to their specific needs. Moreover, transfer of resources from the rich areas to the poor ones is also essential for correcting the inequalities and imbalances between different regions of a federal state.

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5.2.4 METHODS OF ADJUSTMENT

Financial adjustments between the central and state governments can be made in the following ways:

1. Tax sharing.
2. Reallocation of functions.
3. State contributions.
4. Supplementary levies.
5. Grants-in-aid.

Tax Sharing

Under this method, the proceeds of certain selected taxes, imposed and realized by the centre, are apportioned between the centre and the different states. In India, the income tax and some Union excise duties are such shared taxes. This method of sharing tax yield is, however, confronted with various difficulties such as: what should be the criteria for determining the share of states out of the total tax yield of the centre? What portion of the total national share should be assigned to the state? etc. basically, the share of the centre should be reasonably large to meet its nation-wide functions. The share of each state can, however, be determined on the basis of actual yield form a particular state, its population, total revenue and its total expenditure needs, etc. Nevertheless, adjustments to the complete satisfaction of the different states may not be possible and states are bound to feel a sense of frustration. Arbitrary decisions are thus, inevitable. In India, for instance, a Finance Commission is appointed every five years by the President to determine the share of each state of the divisible taxes.

Reallocation of Functions

Sometimes when it is found that certain functions, though assigned to the state government, can very well be carried out by the central government with the same efficiency, it is desirable for the centre itself to take over such functions, thus, relieving the state government of the administrative burden.

This may need necessary constitutional amendments. For instance, in Canada, in 1940, by a constitutional amendment, unemployment insurance was transferred to the Dominion Government to enable it to set up a national system of unemployment insurance and reliever the federating units of the burden.

State Contributions

There may be a provision for contributions or payments form state governments to the centre, when the latter is in need of large resources. This was practiced in the at the time of its first constitution, when the national government had no powers of taxation and was solely dependent upon states' assistance. Such a system has been discarded in modern times, for it will not only make the centre weak and subordinate to the states, but hinder the progress of national well-being and create immense difficulties for the centre in meeting emergencies.

Usually, when a centre is strong and has more funds than the states, the adoption of this method is not only unsound but impracticable too.

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Supplementary Levies

Supplementary levies may be of two types: (i) imposition of additional levies by state on federal taxes and (ii) imposition of additional levies by the centre on state taxes. However, as the states have their own rates of taxation, the latter method may not be a practical proposition. The first method is more desirable and practicable, because in all federations, it is the states who need additional revenues to meet their growing commitments and as such they should be authorised to impose supplementary levies on federal taxes.

However, this system has the following drawbacks:

1. It involves the risk of making the tax burden too heavy.
2. This may encourage tax evasion, causing loss of total revenue.
3. It would yield more revenue to richer states. Hence, the problem of inter-state disequilibrium would be aggravated.

Of all the above four methods, therefore, the sharing method seems to be the best.

Grants-in-aid

For making the necessary adjustments in state resources, the central government has the constitutional power to make grants to the state governments in most federations of today. Undoubtedly, the grants-in-aid from the centre constitute a more definite and dependable source of revenues to the state governments than the method of sharing tax yield of the centre. Further, the grant may be regarded as an effective instrument for bridging the gap between fiscal capacity and financial needs of the state governments. While allocating grants, the centre takes into account the economy and need of the states. It generally decides to give more financial help to backward states as compared to the rich and advanced states. Through grants-in-aid, thus, the federal government can promote inter-state redistribution of national income, which would help in stimulating the economic development of backward regions, thereby improving the general welfare of the nation as a whole.

The central grants to states can be of two types: (i) those made in lieu of compensation for the loss of revenue resulting from the federalization of certain taxes; and (ii) those made for specific purposes or as general aid. The former type grants usually statutory payments to the states. This is made for avoiding budgetary inconveniences of the state till the state itself is able to make adjustments by tapping new sources of revenue. However, federal grants for specific purposes or general aid to the states are made to correct state-federal disequilibrium or resources, as well as reducing statewise inequalities by favouring the backward states in the allocation of grants.

There are, however, no completely satisfactory criteria devised for deciding the proportion of grant-in-aid allocated to a particular state. It has been suggested that per capital income may be regarded as a reasonably adequate measure of the relative economic capacity of the different states and should be used as an important criterion for determining the allocation of federal grants. Nehru-Adarkar Report, however, states that in the allocation of grants, apart from the per capital income and wealth of states, fullest consideration must be given to all relevant factors such as the size of population, the

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wealth of natural resources, the existing backwardness of the areas concerned, the geographical density of population, and the basic needs of the various states.

It is, however, difficult to take into account all these factors at one time. From a practical point of view, however, it has been suggested that total population an per capita income should be the main criteria for determining the financial needs of each state, according to which the allocation of grants should be made. Thus, the amount of central aid should vary directly with the population of the states and inversely with their per capital income, after due allowance has been made for the scarcity of population.

Federal grants, thus, should not be arbitrarily determined. They must be based on some specific criteria as suggested above. In India, a Finance Commission is appointed every five years to recommend to the Centre the allocation of grants. Moreover, the allocation of federal grants should be determined well in advance and should be valid for a period of time; otherwise a great deal of uncertainty and dissatisfaction may be caused to the states.

Conditional and Unconditional Grants

Federal grants may be conditional or unconditional. Conditional grants are made for certain specific purposes. Therefore, the state governments have perforce to use such funds only for the purposes for which they are allocated.

Conditional grants are, thus, provided on the basis of the expenditure needs of each state, irrespective of its financial capacity. For instance, educational grants may be made according to the number of students of school going age in each state. Sometimes, conditional grants are also made by the Central to states for meeting the expenditure of some projects initiated by the Centre, such as the community development project. In such cases, the state governments are called upon to act in a supervisory capacity to implement the projects.

Although, under conditional grants, the states lose their freedom of action, such grants are justified on the ground that the receiving states are made conscious of their financial responsibility and functions and observe financial discipline and check unwise spending.

Unconditional grants are generally made on the basis of per capita income and relative poverty of the different states. They are devised to bridge the gap between revenues and expenditures of the state governments.

Such grants are also known as equalizing grants, there is no check or supervision by the Centre, the receiving states have full authority to use them in any way they like. However, the state governments generally do not use them for projects which benefit the nation as a whole; they are used only for local purposes.

It will be observed from the above that conditional and unconditional grants have their own merits and demerits. However, a combination of both the systems seems to be desirable and practical.

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5.2.5 FEDERAL FINANCE IN A DEVELOPING ECONOMY

The basic goal underlying federal finance in a developing economy is the promotion of rapid economic development rather then the correction of regional disparities as such.

A growth-oriented fiscal policy, thus, aims at transfer of resources from a line having lower marginal productivity to one having a higher one. Thus, the two objectives: (i) growth and (ii) equity, are conflicting in effect in a developing economy, which is characterised by a low level of economic development as well as high inequalities among regions on account of lopsided development and unequal supply of productive resources. It has to promote growth and equality too. But the priority should be given to growth while initiating inter-regional transfer of resources through fiscal operations of the federal government. As such, while determining the policy of grants-in-aid, the central government has to give priority to those development projects of the states which yield a higher marginal productivity.

A developing economy needs the evolution of an optimal tax system which would help in mobilising the maximum amount of resources for growth. It must be such that extravagant consumption and unproductive investment are discouraged and the resources are diverted to genuine investments in economic and social overheads and capital formation. In a developing economy, the central authority must be strong and powerful and must be empowered to keep vigilance and control over the state activities in order to carry out its economic plans.

Further, in a federal country, with large regional variations in resource endowments, regional planning is very essential for the development of national economy as a whole. But regional planning must from integral part of national planning. The central authority has, thus, to assist the regional governments in the formulation and implementation of their development plans by proper co-ordination. There should be co-ordination of budgetary policies of the various state governments, directed towards the developmental needs of economic planning.

In a developing economy, different regions of the same country may be at different stages of economic development. An underdeveloped region, thus, possesses a higher potential for development. Hence, the federal grants must be used conditionally for the developmental purposes in backward regions, so as to achieve maximisation of national income through a regional balanced growth. When the production curve of backward region is brought to its existing production possibility frontier, a substantial growth is visualised in the national income of the country. Poverty anywhere endangers prosperity everywhere. Thus, lack of regional balance in a country retards national progress as a whole. When there is over investment of capital in one state and under investment in another, there will be low average productivity in the country as a whole. Hence, the federal grants must play the role of supplementing the investible resources of the backward areas to achieve interregional equilibrium and regional balanced growth of the country.

The aim of accelerating economic growth through federal finance, however, comes into conflict with the objective of achieving a regional balanced growth. The former demands a transfer of resources from low marginal productivity areas to high marginal productivity areas. It, thus, suggests that the rich states should be favoured more than the

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poor ones. On the other hand, the regional balanced growth objective calls for transfer of more resources to backward states, which is incompatible with the objective of achieving maximum rate of economic growth in the nation as a whole.

It must, however, be admitted that this conflict of objectives has been the root cause of poverty in many backward countries. Hence, for the eradication of poverty and to put the backward states on to the path of rapid economic development, some equitable redistribution of resources is essential. Our fiscal policy must be so designed as to reconcile the twin objectives of rapid development and regional balance. It is, thus, necessary that the allocation of resources by the central planning authorities should be guided by the principle of equalizing marginal productivity in the different lines of investment.

Further, the system of federal grants in a developing economy must conform to the criterion of allocative efficiency. Therefore, the states which are rich in resources but financially deficit, must be assisted by the federal grants. Moreover, federal should be made only to those development projects of rich but backward states which conform to the criterion of highest marginal rate of return.

In short, the policy of federal grants allocated for financing the state plans, as in India, faces one danger, that it involves the risk of weakening the incentive of the states to mobilise sufficient resources at regional level, when they are induced to lean heavily on the central grants to meet their deficits.

5.2.6 COORDINATION OF FINANCIAL POLICY BETWEEN CENTRE AND STATE GOVERNMENTS

Since India has a federal constitution, inter-governmental financial problem is fundamental to Indian public finance

The Constitution of India specifies the following allocation of re-sources between the Union and the State Governments.

1. Union Sources of Revenue

(i) Taxes on income other than agricultural income; (ii) Corporation tax; (iii) Customs duties (except those on alcoholic liquors and narcotics); (iv) Estate and succession duties other than on agricultural land; (v) Taxes on the capital value of assets (exclusive of agricultural land) of individuals and companies; (vi) Rates of stamp duty in respect of certain financial documents; (vii) Taxes (other than stamp duties) on transactions on stock exchanges and futures markets; (viii) Taxes on sales and purchases of newspapers and on advertisements therein; (ix) Taxes on railway freights and fares; (x) Terminal taxes on goods or passengers carried by railway, sea or air; (xi) Taxes on the sale or purchase of goods in the course of inter-state trade. Moreover, the residuary powers vest with the Union Government.

2. Sources of Revenue of State Governments

(i) Land revenue; (ii) Tax es on the sale and purchase of goods, except newspapers; (iii) Taxes on agricultural income; (iv) Excise duties on liquors, opium and other narcotics and drugs; (v) Taxes on land and buildings; (vi) Irrigation duties; (vii) Succession duties

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and estate duty on agricultural land; (viii) Taxes on betting and gambling, entertainment and amusement; (ix) Taxes on animals; (x) Taxes on professions and trades; (xi) Taxes on road vehicles; (xii) Taxes on consumption of electricity; (xiii) Taxes on the entry of goods into a local area; (xiv) Tolls.

There are, however, duties levied by the Union but collected and appropriated by the states, e.g., stamp duties, duties or excise on medical and toilet preparations. Likewise, there are taxes which are levied and collected by the Union but which are assigned to the states within which they are levied, e.g., succession and estate duties in respect of other than agricultural land, terminal taxes on railway fares, etc.

There are taxes which are levied and collected by the Union but the revenues from these taxes are shared by the Union Government with the state governments.

For example, income tax and Union excise duties are such taxes. The proportion in which the revenue from these taxes is to be shared is determined by the Finance Commission. The Constitution provides that for this purpose, a Finance Commission should be appointed every five years by the President of India.

Now, let us critically examine how far the distribution of resources between the Centre and the States, as has been laid down, is in conformity with the principles of federal finance. The basic criteria of a sound federal finance are: (i) fiscal self-reliance, elasticity, (ii) operational efficiency, and (iii) administrative responsibility. The above allocation is defective in so far as fiscal self-reliance is concerned, because the state resources are inadequate. Likewise, state resources are relatively stationary too. But, from efficiency and responsibility points of view, the allocation seems to be satisfactory.

It is, however, obvious that the allocation exposes central domination. The states are financially weak and have to rely on central assistance to balance their budgets.

5.27 FINANCE COMMISSIONS

The functions of the Finance Commission are to make recommendations to the President in respect of: (i) distribution of net proceeds of taxes to be shared between the Union and the States; (ii) allocation of shares of such proceeds among the States; (iii) principles which should govern the Centre's grants-in-aid of the revenues to the States; and (iv) any other matter concerning financial relations between the Union and the States.

Since 1951, six Finance Commissions have so far been appointed.

First Finance Commission

The President of India appointed a Finance Commission on December 1, 1951. The following were the important recommendations of this Commission:

1. The States' share in the proceeds of the income tax should be 55 per cent of the net proceeds.
2. Regarding distribution among States, the basis should be 20 per cent, should be distributed on the basis of relative collections of States and 80 per cent on the basis of relative population according to the census of 1951.

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3. The percentage shares for the more important State have to be as follows: Bombay (17.5), UP (15.75), Madras (15.25), West Bengal (11.25), Punjab (3.25), Rajasthan (3.5) and Assam (2.25).
4. 40 per cent of the net proceeds of the duty levied on tobacco, matches and vegetable product should be distributed to the States.
5. Grants to four jute-producing States (W. Bengal, Assam, Bihar and Orissa) should be increased, in lieu of their share of the jute export duty.
6. The Centre should make conditional and unconditional grants to the States. Considerations in fixing the amount of these grants should be the budgetary needs of the States, the standard of social services, special burdens such a due to floods, famines, etc.

The First Finance Commission's recommendations were criticised on the ground that a much smaller importance was given to the sources of collection than what was desired by economically stronger states.

Second Finance Commission

The Second Finance Commission was set up in June 1956. Its recommendations were as follows:

1. The share of the states in the net proceeds of income tax should be increased to 60 per cent.
2. The actual distribution of the share assigned to the States should be on the basis of population. Thus, 90 per cent of the amount of the divisible pool should be distributed on the basis of population and only 10 per cent on the criterion of source of collection.
3. The number of excise duties to be shared by the Union with the States is increased from 3 to 8, but the share of the States in these duties is reduced from 40 per cent to 25 per cent. Even then, there was an increase in the absolute amount of revenues accruing to the States.
4. One per cent of the proceeds from the estate duty (imposed in 1953) should be given to the Union territories.
5. 1/4 per cent of the total proceeds of the railway passenger fares tax (imposed in 1957) should be given to the Union territories, on the basis of actual road-miles of the different states.
6. The special grants-in-aid paid to the jute-growing States should be stopped after 31st March, 1960.
7. Unlike the First Finance Commission, the Second Commission recommended unconditional grants.

On the whole, thus, the distribution made by the Second Commission was fair and just.

Third Finance Commission

The Third Finance Commission was set up in December 1960. The main recommendations of the commission were as follows:

1. 66-2/3 per cent of the net proceeds of income tax should be distributed among the States.

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2. The distribution of the States' share should be to the extent of 80 per cent on the basis on the basis of population and 20 per cent on the basis of collection. (Thus, the recommendation of the First Finance Commission was revived.)
3. The number of excisable commodities in the divisible pool of proceeds is raised from 8 to 35. However, the percentage of States' share is reduced from 25 to 20.
4. Since the tax on the railway passenger fares was abolished an amount of ₹ 12.5 crores should be distributed among all the States in such a manner that the State Government get an equal amount of revenue (as grants instead of share of taxes).
5. In order to remove the wide disparity in the development of the different regions, Special Purpose Grants for the improvement of communications should be given to the backward States.
6. Grants-in-aid should be given for meeting the planned revenue expenditure of the States.

It was, however, felt that in view of the rapid increase in the expenditures of the State Governments, the Commission did not properly adjust their requirements. Nevertheless, the Commission was more generous and quite fair.

Fourth Finance Commission

The Fourth Finance Commission was constituted by the President in 1964. It had made the following important recommendations:

1. 75 per cent of the net proceeds of income tax should be distributed among the States.
2. For the Union Territories, 2.5 per cent of the net proceeds of the income tax should be allocated.
3. The excise duties on all commodities should be shared by the Union with the States. The share of the individual States should be determined on the basis of 80 per cent on population and 20 per cent on relative economic backwardness.
4. A liberal Grant-in-aid of ₹ 140 crores per annum (as against ₹ 64 crores in the Third Finance Commission) should be made to the State Governments.
5. A competent body should be formed to study in detail the entire problem of indebtedness of States and allied matters.
6. The Planning Commission should be made a statutory body independent of the Government and the relative scope and f unctions of the Finance Commission and the Planning Commission should be clearly defined by amending the Constitution.

The Government of India has accepted the recommendations of the Commission with some modifications.

Fifth Finance Commission

The Fifth Finance Commission was appointed in February 1968, under Article 280 of the Indian Constitution. Shri Mahavir Tyagi was its chairman. The financial report of the Commission was submitted on July 31, 1969. It put forward the following recommendations:

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1. 75 per cent of the net proceeds from income tax should be distributed among the States. But, 90 per cent is to be distributed on the basis of population and rest on the basis of collection. It, thus, revived the scheme suggested by the Second Finance Commission.
2. The States' share in the Union excise should be continued at 20 per cent of the actual collection. The criterion of distribution should be 80 per cent on the basis of population and 20 per cent on the basis of social and economic backwardness.
3. The share of the Union Territories in the net proceeds of estate duty has been raised from 2 per cent to 3 per cent
4. The balance of estate duty is to be distributed among the States. Revenues collected from immovable properties should be distributed on the basis of actual location of such properties in the different States. The revenues from movable properties are to be distributed on the basis of population.
5. In considering the question of grants, emphasis should be shifted from budgetary needs to broad fiscal needs of the States.
6. A tax on newspaper advertisements should be imposed.
7. There should be resources mobilization in the agricultural sector through the imposition of agricultural income tax.
8. The States should not indulge in deficit financing.
9. Balanced budgets and expenditure control should be the basis of the fiscal policy.
10. The Centre should urge the States to clear their overdrafts and achieve fiscal discipline.

In this way, the Fifth Finance Commission tried to make keen efforts in solving the problem of allocation of financial resources between the Centre and the States. But, it could not make any appreciable headway because: (i) the role of the Finance Commission *vis-à-vis* the Planning Commission was not clearly defined; (ii) the Finance Commission could not pay due attention and devote sufficient time to the issue of the use of Centre-State transfers of resources in an optimum manner. Moreover, the Commission assigned less importance to grants *vis-à-vis* devolution of taxes. Furthermore, while rewarding backwardness, the Commission overlooked the obstacles in the way of progress and improvement of advanced regions. It has unduly shifted resources from the more developed states to the less developed states.

Sixth Finance Commission

On June 28, 1972, the Sixth Finance Commission was appointed under the chairmanship of Shri Brahmananda Reddi. A part from the usual terms of reference regarding the distribution of tax proceeds and grants-in-aid, it had the following additional terms of reference:

1. To assess the non-plan capital gap of the various states for the period 1974-79.
2. To review the policy and arrangement relating to the financing of relief expenditure by the States.
3. To examine the possibility of establishing a national fund for financing relief expenditure.

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4. To review the indebtedness of the State Governments to the Centre, and suggest a suitable debt relief scheme.

By the end of 1973, the Commission submitted its report. Its recommendations have been fully accepted by the Governments. The following are the important recommendations of the Commission:

1. The share of State in the divisible pool of revenue from income tax should be revised to 80 per cent. (The Fifth Finance Commission had suggested 75 per cent).
2. While allocating the share of each state in this pool of income tax proceeds, 90 per cent should be distributed on the bass of population and 10 per cent on the basis of collection. It, thus, retained the scheme as suggested by the Fifth Commission.
3. It did not suggest any change in the existing scheme of distributing proceeds of estate duties.
4. Similarly, it retained the principle that the States' share in excise duties should be 20 per cent of the actual collection. But it modified the basis of distribution as under: 75 per cent on the basis of population and 25 per cent on the condition of States' backwardness. In fact, unlike the previous commissions, the Sixth Commission put more weight on the backwardness of the States in sharing excise duties and dropped the consideration of sales tax contribution while distributing the proceeds of the additional excise duties on sugar, tobacco, and textiles.
5. It recommended that the amount of total grants-in-aid of the Centre to the states should be of the order of ₹ 2,510 crores during 1974-79 for the 14 states to cover their non-plan deficit. A gain, during this period, the Centre should transfer ₹ 9,609 crores to the states, by way of their sharing in tax proceeds and grants to them. Seven rich states — Maharashtra, Gujarat, Haryana, Punjab, MP, Karnataka, and Tamil Nadu — were not recommended for grants-in-aid by the Commission.

   In its recommendations, thus, the Commission has adopted fair play and tried to reduce the regional imbalances in the State finance to some extent.

   Further, the Commission in its Report also chalked out the norms for improving the standard of administration and social services such as police, jails, education, public health, etc., in the backward states to reach the level of average of all States at ₹ 838 crores.
6. The Commission estimated that the aggregate indebtedness of the State to the Centre will be to the tune of ₹ 8,400 cores by March 1974. It, thus, suggested that the repayment process should be consolidated and spread out over 15 to 30 years.

Seventh Finance Commission

The Seventh Finance Commission submitted its report on 1978. It looked into the financial needs of the State for adequate maintenance and upkeeping of their capital assets. Its approach was towards tax sharing by the States rather than grants in fiscal federation. It recommend that the practice of mechanically filling the revenue gap of the States showed be stopped and a benchmark date should be adopted towards its commitment for additional expenditure and securing additional grants.

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The 7th FC raised the states share in excise revenue to 40 per cent of net collection.

Eighth Finance Commission

The Eighth Finance Commission w as appointed in June 1982 under the chairmanship of Shri Y.B. Chavan. Its Final Report was placed in 1984. The 8th FC, despite realizing the increasing fiscal needs of the states, did not increase their shares in the divisible pool of income tax. It, however, increased the share of states in excise revenue from 40 per cent to 45 per cent.

The 8th FC's approach was to reduce the inter-state disparities through progressive distribution/allocation of resources. It also favoured tax sharing rather than grants as the mode of resource transfer. It laid down that grants should reflect the State efforts in their fiscal/financial management and should not merely be a gap-filling phenomenon.

Ninth Finance Commission

The Ninth Finance Commission was constituted in June 1987. It was chaired by Shri Salve. It submitted the first report in July 1988 and the second report in December 1989.

The Commission was asked to adopt a normative approach and look into the desirability of expenditure and also to deal with the problem of revenue deficits.

The 9th FC suggested that the fiscal needs of the states showed be judged through tax efforts and expenditure economy. Secondly, there should be equalisation of the standards of social services provided by the states.

In short, it recommended grants on the basis of normative gaps rather than fiscal gaps in state finance.

Tenth Finance Commission

The Tenth Finance Commission was appointed in June 1992 under the chairmanship of Shri K.C. Pant. Its Report was submitted in November 1994, covering the period 1995-2000.

There was no binding on the 10th FC to adopt a normative approach. It was, however, to look into the targets for additional resource mobilization by the states, potential for raising additional tax revenue, and strive for better fiscal management.

The 10th FC tool note of the growing revenue expenditure and deficit on revenue account as well as growing inter-regional disparities in the country's finance both at Centre and State levels.

The Commission recommended that the share of State in the divisible pool income tax revenue should be 77.5 per cent and that of Union Territories should be 0.927 per cent. it enhanced the States' share in excise revenue to 47.5 per cent of net divisible pool.

Regarding debt problem of the States' the 10th FC opined that states should make prudent use of borrowed money and loans should not be written off. Incentives for better fiscal management should be provided.

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The commission provided a broader definition to the pool of divisible tax-revenue covering income tax, Corporation Tax, Union excise duties, additional duties on excise on excise and grants in lieu of tax on railway passenger fares.

10th FC laid down that fiscal disciple requires to avoid deficit on revenue account and expenditure control.

It also adopted normative approach in assessing the revenue-expenditures of the governments.

Table 5.2.1 entails a nutshell review of the shares of states in net proceeds from income tax provided under different finance commissions.

Table 5.2.1: Finance Commissions Division for Shares of States in Net Proceeds for Income Tax

Finance Commission	(Per cent) Share
First	55
Second	60
Third	66.6
Fourth	75
Fifth	75
Sixth	80
Seventh	85
Eighth	85
Ninth	85
Tenth	77.5

Eleventh Finance Commission

It was appointed in July 1998 with A.M. Khusro as the chairman. Its report was submitted in July 2000, covering the period 2000-2005. Its term of reference confined to:

- Distribution of tax proceeds between the centre and the states.
- Grants-in-aid principles.
- Measures towards consolidation of funds.

11th FC recommended that the show of states in the net-proceeds of all central taxes, and duties be fixed at 28 per cent. Besides, 1.5 per cent of all taxes revenue be allocated to the states separately. This means states slurs totally to 29.5 per cent.

Twelfth Finance Commission

The 12th FC was appointed in November 2002 under the chairmanship of C. Rangarajan. Its report was submitted in 2004, covering the period 2005-10. Its specific terms of references pertained to:

- Balancing the revenue accounts of the center as well as states with a view to reduce fiscal deficits.

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- Taxation efforts.
- Commercial viability of various projects undertaken by the states.

The 12th FC suggested to increase the share of the states to 30.5 per cent in the pool of central taxes.

The Commission claimed to have followed the principles of equity and fiscal efficiency in assigning the criteria and relative weight for determining inter-se slur of states. The commission recommended the continuation of the scheme of calamity relief fund established made with suggestion of the 11th FC.

The Commission blamed centre's fiscal policy for the increasing indebtedness of the states over the years.

The commission observed that the Fiscal Reform Facility introduced of the center failed to play any significant role in the improvement of states finance.

Concluding Remarks

The fiscal federalism in India should evolve a flexible and efficient and equitable system of resource transfers from the Centre to States. Profligacy of sending should be stopped. Prudency and fiscal discipline should govern the mode of public finance in India at all levels of the government.

Thirteenth Finance Commission

Finances of Union and States

1. The Ministry of Finance (MoF) should ensure that the finance accounts fully reflect the collections under cesses and surcharges as per the relevant heads, so that there are no inconsistencies between the amounts released to states in any year and the respective percentage shares in net central taxes recommended by the Finance Commission for that year.
2. The states need to address the problem of losses in the power sector in a time-bound manner.
3. Initiatives should be taken to reduce the number of Centrally Sponsored Schemes (CSS) and to restore the predominance of formula-based plan transfers.
4. A calibrated exit strategy from the expansionary fiscal stance of 2008-09 and 2009-10 should be the main agenda of the Centre.

Goods and Services Tax

5. Both the Centre and the states should conclude a 'Grand Bargain' to implement the Model GST. The Grand Bargain comprises six elements:
   (i) The design of the Model GST is suggested in paras 5.25 to 5.35.
   (ii) The operational modalities are outlined in paras 5.36 to 5.41.
   (iii) The proposed agreement between the Centre and states, with contingencies for changes, is in paras 5.49 to 5.51.
   (iv) The disincentives for non-compliance are described in Para 5.52.
   (v) The implementation schedule is described in paras 5.57 to 5.59.
   (vi) The procedure for claiming compensation is in Para 5.60.

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6. Any GST model adopted must be consistent with all the elements of the Grand Bargain.

   To incentivise implementation of the Grand Bargain, this Commission recommends sanction of a grant of ₹ 50,000 crore. The grant would be used to meet the compensation claims of State Governments for revenue losses on account of implementation of GST between 2010-11 and 2014-15, consistent with the Grand Bargain. Unspent balances in this pool would be distributed amongst all the states, as per the devolution formula, on 1st January, 2015.

7. The Empowered Committee of State Finance Ministers (EC) should be transformed into a statutory council. The compensation should be disbursed in quarterly installments on the basis of the recommendations by a three-member Compensation Committee comprising of the Secretary, Department of Revenue, Government of India; Secretary to the EC and chaired by an eminent person with experience in public finance.
8. In the unlikely event that a consensus with regard to implementing all the elements of the Grand Bargain cannot be achieved and the GST mechanism finally adopted is different from the Model GST suggested by us, this Commission recommends that this amount of ₹ 50,000 crore shall not be disbursed.
9. The states should take steps to reduce the transit time of cargo vehicles crossing their borders by combining check posts with adjoining states and adopting user-friendly options like electronically issued passes for transit traffic.

Union Finances

10. The policy regarding use of proceeds from disinvestment needs to be liberalised to also include capital expenditure on critical infrastructure and the environment.
11. Records of landholdings of PSUs need to be properly maintained to ensure that this scarce resource is put to productive use, or made available for other public projects, or else, sold.

State Finances

12. The practice of diverting plan assistance to meet non-plan needs of special category states should be discontinued.
13. With reference to public sector undertakings:
    (i) All states should endeavour to ensure clearance of the accounts of all their Public Sector Undertakings (PSUs).
    (ii) The states should use the flexibility provided by the Comptroller and Auditor General (C&A G) to clear the backlog of PSU accounts.
    (iii) All states need to draw up a roadmap for closure of non-working PSUs by March 2011. Divestment and privatization of PS Us should be considered and actively pursued.
    (iv) The Ministry of Corporate Affairs should closely monitor the compliance of state and central PSUs with their statutory obligations.
    (v) A task force may be constituted to design a suitable strategy for disinvestment/privatisation and oversee the process. A Standing Committee on restructuring may be constituted under the chairmanship of the Chief Secretary to operationalise the recommendations of the task

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force. An independent technical secretariat may be set up to advise the finance departments in states on restructuring/disinvestment proposals.

14. With reference to the power sector:
    (i) Reduction of Transmission and Distribution (T&D) losses should be attempted through metering, feeder separation, introduction of High Voltage Distribution Systems (HVDS), metering of distribution transformers and strict anti-theft measures. Distribution franchising and Electricity Services Company (ESCO)-based structures should be considered for efficiency improvement.
    (ii) Unbundling needs to be carried out on priority basis and open access to transmission strengthened. Governance should be improved through State Load.
    (iii) Proper systems should be put in place to avoid delays in completion of hydro projects.
    (iv) Instead of putting up thermal power plants in locations remote from sources of coal, states should consider joint ventures (JVs) in or near the coal-rich states.
    (v) Case 1 bid process should be extensively used to avoid vulnerability to high-cost purchases during peak demand periods.
    (vi) Regulatory institutions should be strengthened through capacity building, consumer education and tariff reforms like Multi Year Tariff (MYT). Best practices of corporate governance should be introduced in power utilities.
15. Migration to the New Pension Scheme needs to be completed at the earliest.
16. States with large cash balances should make efforts towards utilising these before resorting to fresh borrowings.
17. With reference to accounting reforms:
    (i) The Government of India (GoI) should ensure uniformity in the budgetary classification code across all states. The list of appendices to the finance accounts of states also needs to be standardized.
    (ii) Details of contra-entries as well as the summary of transactions between the public account and the consolidated fund should be provided as a separate annex to the finance accounts of the states.
    (iii) Public expenditure through creation of funds outside the consolidated fund of the states needs to be discouraged.

    Expenditure through such funds and from civil deposits should be brought under the audit jurisdiction of the C&A G.
    (iv) The following statements need to be provided with the finance accounts of states:
        (a) Comprehensive data on all subsidies.
        (b) Consolidated information on the number of employees at each level, along with the commitment on salary.

        This statement should also include information on employees and their salary where such expenditure is shown as grants or booked under other expenditure.
        (c) Details of maintenance expenditure.

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Sharing of Union Tax Revenues

18. The share of states in net proceeds of shareable central taxes shall be 32 per cent in each of the financial years from 2010-11 to 2014-15. Under the Additional Duties of Excise (Goods of Special Importance) Act, 1957, all goods were exempted from payment of duty from 1 March 2006. Following this, the Centre had adjusted the basic duties of excise on sugar and tobacco products. In view of these developments, the states' share in the net proceeds of shareable central taxes shall remain unchanged at 32 per cent, even in the event of states levying sales tax.
19. In the event of notification of the 88th Amendment to the Constitution and enactment of any legislation following such notification, it should be ensured that the revenue accruing to a state under the legislation should not be less than the share that would accrue to it, had the entire service tax been part of the shareable pool of central taxes.
20. The Central Government should review the levy of cesses and surcharges with a view to reducing their share in its gross tax revenue.
21. The indicative ceiling on overall transfers to states on the revenue account may be set at 39.5 per cent of gross revenue receipts of the Centre.
22. The share of each state in the net proceeds of all shareable central taxes in each of the financial years from 2010-11 to 2014-15 shall be as specified in Table 5.2.1:
23. The revenue deficit of the Centre needs to be progressively reduced and eliminated, followed by emergence of a revenue surplus by 2014-15.
24. A target of 68 per cent of GDP for the combined debt of the Centre and states should be achieved by 2014-15. The fiscal consolidation path embodies steady reduction in the augmented debt stock of the Centre to 45 per cent of GDP by 2014-15, and of the states to less than 25 per cent of GDP, by 2014-15.
25. The Medium Term Fiscal Plan (MTFP) should be reformed and made a statement of commitment rather than a statement of intent. Tighter integration is required between the multi-year framework provided by MTFP and the annual budget exercise.

5.2.8 SUMMARY

A federation is a political set-up constituting a union of two or more states. Federalism has evolved over the years in two ways: (i) by aggregation and (ii) by devolution.

A federal state may be constituted by aggregation or linking together of several sovereign states, through a treaty, for achieving certain common economic and/or political objectives.

In a federal state, division of function leads to the division of resources between the two layers of government. The immediate question in federal finance is what sources of revenue should be allocated to the different authorities so that they may discharge their functions efficiently.

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The principle of autonomy and responsibility also implies that as far as possible the centre should not interfere in matters which are exclusively the responsibilities of the states.

The resources of each unit should be adequate to meet its immediate needs of the present and should be elastic enough as well to meet the growing needs of the future. It may so happen that the states are called upon to incur heavy expenditures on education, public health and agricultural development, etc., which require huge and growing resources, and the revenue raised by them may not be sufficient to meet them. In such cases, the central government assists them by way of grants etc., or by transferring resources from surplus states to deficit states.

Allocation of resources between the central and the state governments should be such that:

(i) The centre will get enough resources to meet its normal requirements as well as to maintain additional reserves to meet emergency.

(ii) The states will get sufficient funds to meet their normal requirements and additional and increasing expenditures on social services like education, public health family planning, etc.

(iii) There is possibility of alteration in the distribution of resources according to changing needs. The financial framework must be flexible.

Federal grants may be conditional or unconditional. Conditional grants are made for certain specific purposes. Therefore, the state governments have perforce to use such funds only for the purposes for which they are allocated. Conditional grants are, thus, provided on the basis of the expenditure needs of each state, irrespective of its financial capacity. For instance, educational grants may be made according to the number of students of school going age in each state.

Unconditional grants are generally made on the basis of per capita income and relative poverty of the different states. They are devised to bridge the gap between revenues and expenditures of the state governments.

The basic goal underlying federal finance in a developing economy is the promotion of rapid economic development rather than the correction of regional disparities as such.

A growth-oriented fiscal policy, thus, aims at transfer of resources from a line having lower marginal productivity to one having a higher one. Thus, the two objectives: (i) growth and (ii) equity, are conflicting in effect in a developing economy, which is characterised by a low level of economic development as well as high inequalities among regions on account of lopsided development and unequal supply of productive resources. It has to promote growth and equality too.

The functions of the Finance Commission are to make recommendations to the President in respect of:

(i) distribution of net proceeds of taxes to be shared between the Union and the States;

(ii) allocation of shares of such proceeds among the States;

(iii) principles which should govern the Centre's grants-in-aid of the revenues to the States; and

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(iv) any other matter concerning financial relations between the Union and the States.

The Commission claimed to have followed the principles of equity and fiscal efficiency in assigning the criteria and relative weight for determining inter-se slur of states. The Commission recommended the continuation of the scheme of calamity relief fund established made with suggestion of the 11th FC. The Commission blamed centre's fiscal policy for the increasing indebtedness of the states over the years. The commission observed that the Fiscal Reform Facility introduced of the Centre failed to play any significant role in the improvement of states' finance.

5.2.9 SELF ASSESSMENT QUESTIONS

1. What is Fiscal Federalism?
2. Explain the distribution of revenues between Union Government and State Government with special reference to India.
3. Examine in India the co-ordination of financial policy between Centre and States.

5.2.10 Reference:

1. The Theory of Public Finance- R.A. Musgrave

2. Government Finance (Economics of the Public Sector)- J.F Due and F. Friedlander

3. Modern Public Finance- B.P. Herber

4. A Study of Public Finance- A. C. Pigou

5. Financing Government-M. A. Groves

6. Public Finance in Underdeveloped Countries- A. R. Priest

7. Public Finance and Fiscal Policies- Allan Williams

8. Economics of Co-Public Expenditure- T. Mathew

9. Economics of Control Chapters on functional finance- A. P. Lerner

5.2.11 **Key Terms**

- **Federalism:** Federalism is a system of government in which power is divided between a central authority (the federal or national government) and constituent political units (such as states, provinces, or regions). Fiscal federalism focuses specifically on the division of fiscal powers and responsibilities.
- **Vertical Fiscal Imbalance:** Vertical fiscal imbalance occurs when there is a disparity between the revenue-raising powers and spending responsibilities of different levels of government within a federal system. This can lead to issues such as overreliance on transfers from the central government or inadequate resources for subnational governments to fulfill their mandates.
- **Revenue Assignment**: Revenue assignment refers to the allocation of tax-raising powers among different levels of government. It involves decisions about which taxes are collected by the central government and which are collected by subnational governments, as well as the sharing of revenue from shared taxes.
- **Tax Sharing**: Tax sharing, also known as revenue sharing or tax assignment, involves arrangements whereby revenue from certain taxes is shared between the central government and subnational governments according to predetermined formulas or agreements. This can help address vertical fiscal imbalances and ensure that subnational governments have adequate resources to finance their expenditures.
- **Intergovernmental Transfers**: Intergovernmental transfers are payments made from one level of government to another to help finance expenditures or address fiscal disparities. These transfers can take various forms, including unconditional grants, conditional grants tied to specific purposes or policy objectives, and equalization payments designed to reduce fiscal disparities among subnational governments.
- **Fiscal Decentralization**: Fiscal decentralization refers to the devolution of fiscal powers and responsibilities from the central government to subnational governments. It can involve greater autonomy for subnational governments in revenue raising, spending, borrowing, and fiscal management.
- **Equalization**: Equalization refers to mechanisms designed to redistribute fiscal resources among subnational governments to ensure that all jurisdictions have